# MAHATMA GANDHI UNIVERSITY

## Vol. I

## SELF STUDY REPORT

# Mahatma Gandhi University

# Self –Study Report for NAAC Re-accreditation, 2016

## Officers of the University

**Dr. Babu Sebastian**
Vice-Chancellor

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# Preface

Mahatma Gandhi University seeks to make advances in the field of higher education by catering to "the scholastic and developmental needs of the individual, through continuous creation of critical knowledge base for the society's sustained and inclusive growth". Towards fulfilling this goal, Mahatma Gandhi University has made immense strides in the fields of inter disciplinary learning and research.

The University was previously accredited by NAAC in September 2003 with 'B+' and further in July 2011, with 'B' Grade (2.90). The University is now prepared for its third cycle of accreditation by NAAC. We have made concerted efforts to gear up in the areas of teaching, research and extension, the trinity of responsibilties of higher education. As we submit this self-study report, Mahatma Gandhi University has been selected as the Best University in the state by the Honourable Chancellor for the award of Excellence for the year 2016.

Over the years, successful implementation of the various programmes has ensured equity and accessibility to higher education in the University. Introduction of new technologies over the last few years has improved the teaching, learning and evaluation processes which have been reflected in the student progression. Recognition of the research activities of the University by Department of Science and Technology, through support given twice through the PURSE programme, several mega projects by nano- mission to set up a centre for excellence in Nanoscience and Nanotechnology and the Sophisticated Analytical Instrumentation Facility, the Boot to University Interdisciplinary Science Education and Research (BUILDER) by the Department of Biotechnology, the prestigious 'Obama-Singh 21$^{st}$ Century Knowledge Initiative under the INDO-US collaborative programme' by UGC in 2012, have been a few among the achievements of the University during the present assessment period. The University has also been able to carryout extensive extension activities, besides establishing a large number of collaborations.

It is with immense pleasure that I submit the Self Study Repot (SSR) for the third cycle of assessement to the National Assessement and Accreditation Council, Bengaluru.

Sd/-

**Dr. Babu Sebastian**
Vice-Chancellor

# Executive Summary

Mahatma Gandhi University is a major affiliating university in the state of Kerala with unique characteristics. Located in the southern part of the state, the University is spread across the main campus in the Priyadarsini Hills at Athirampuzha, 13 kilometres off Kottayam and seven satellite campuses. Established on 2 October 1983, Mahatma Gandhi University has jurisdiction over the districts of Kottayam, Ernakulam, Idukki and parts of Pathanamthitta and Alappuzha.

Mahatma Gandhi University offers a range of programmes at the undergraduate, postgraduate, MPhil, doctoral and post-doctoral levels through its 15 Schools, two departments, one International and Interuniversity Centre, seven Inter University Centres, nine Inter School Centres, one Business Incubation and Innovation Centre and seven constituent colleges/institutions. It is also an affiliating university with 191 aided affiliated colleges (of which 10 are autonomous), 158 unaided affiliated colleges and 86 recognized research Centres and institutes. While the Schools/Departments/Centres are inter-disciplinary in nature, most of the affiliated colleges and autonomous colleges impart education in the conventional disciplines of science, social science and humanities as well as in the professional disciplines of Engineering, Technology, Medical Sciences, Hotel Management, Fine Arts, Pedagogy and Legal Studies.

Over the last three decades, Mahatma Gandhi University has made remarkable achievements in the fields of inter-disciplinary teaching and research in the areas of pure and applied sciences, social sciences and humanities. The programmes conducted under the Credit and Semester System (CSS) in the statutory Schools/Departments/Centres in an interdisciplinary mode, are marked by their innovative curricula and their learner-oriented approaches. The CSS is essentially learner-friendly that advances interactive acquisition of knowledge in a multi-disciplinary matrix. The students are oriented to acquire knowledge with the latest developments in their fields of study. The University has consistently sustained healthy practices of designing and updating its curricula and syllabi through discussions and deliberations carried out in a democratic way among the members of the academic community. The faculty of the University comprises outstanding scholars, many of whom have made original contributions in their respective fields of specialization. The faculty and research scholars of several schools have gained widespread recognition for the commendable quality of their research publications. The University has also published journals of global standards with experts of international repute serving on the boards of these publications.

Mahatma Gandhi University currently offers research programmes in over forty disciplines through its own Schools as well as through its approved research Centres. The University has close collaboration for academic, research and extension programmes with a number of national agencies and

institutions including the UGC, DST, DBT, ISRO, CSIR, DAAD, KSCSTE ICMR, BRNS, MeitY, MoES, ICCR, ICHR, ICSSR, IED, IIFT, Institute of Chinese Studies, Jinan National University, China, and the Sahitya Academy. The University is also involved in active collaboration with research institutions of international reputation such as the Max Planck Institute, Germany, Institute of Polymer research, Dresden, Germany, University of South Brittany, France, University of Paris 12, France, University of Strasbourg, France, University of Orleans, France, Dakin University, Australia, University of Nantes, France, California Institute of Technology, USA, University of Toronto, Canada, University of Trent, Canada, Catholic University, Belgium, Heidelberg University, Germany, and the Institute of Political Studies, Rennes, France, POSTECH, South Korea, Brown, Duke and Plymouth State University of USA, Technical University of Denmark, Ben-Gurion University of Israel. Some of the members of the faculty have proved to be frontrunners in the development of indigenous technologies and are holders of as many as thirty two patents, including four US patents. The University has been able to make these achievements mainly due to the healthy environment of academic interaction that exists on the campus. This is also due to the student support and other services available on the campus like the web-enabled University Library with its large collection of books, journals e-journals and the online Theses Digital Library provides open access to its enviable collection of digitized PhD dissertations. In pursuit of the University's quest for excellence, the faculty of the University have made significant contributions in their fields of specialization. In its quest for excellence, the University focuses on the following:

**Access and Expansion**

Being a state-run University, admissions to the various programmes in the University departments are effected in a transparent and rule-governed manner. Merit certainly is a criterion for admission, but there is also the reservation of seats for applicants belonging to the socially and economically disadvantaged sections of the society. The University is aware of the need to increase the Gross Enrolment Ratio (GER), especially among disadvantaged groups, and this has prompted us to seek funding for starting a few more departments and programmes as well as for strengthening the infrastructural facilities in the institution.

Mahatma Gandhi University has the unique distinction among all the Universities in Kerala in having the largest number of colleges affiliated to it offering a multitude of courses that stand out by the merit of their contents catering to not only conventional streams of study but also to new-generation job-oriented disciplines that have been designed taking into account the development of technology.

With a view to streamlining the admission procedure in affiliated colleges, the centralised admission procedure (CAP) has been conceptualized by the Mahatma Gandhi University, implemented from the academic year 2010 and is successfully running the process since then. As far as the student community is concerned, the biggest advantage of CAP is that an applicant

needs to submit only a single application for seeking admission to a particular course in any affiliated college offering the same, thereby minimizing the cost and time in this respect when compared to the college-wise admission. Moreover it can be ensured that the seats earmarked for SC/ST/Physically Challenged candidates are exclusively allotted to them. Unfilled seats in these categories, if any, can also be allotted to other eligible categories as per the existing rules, thereby ensuring social justice.

Considering the need of the hour, the University offers interdisciplinary as well as integrated programmes. University thus established Inter University Centres as well as Inter School Centres for promoting the interdisciplinary research and for supporting the research and academic programmes of the statutory Departments/Schools.

### Equity and Inclusion

The academic programmes of the University are specifically aimed at bringing in greater sensitivity in the academic world to questions of social exclusion and marginalization and some are specifically meant to correct the imbalance that exists in society in the matter of distributing social capital. Overcoming barriers to the education of the marginalized sections is the main objective of most of the programmes. The Common Admission Test for admission to various PG programmes conducted in the University Departments/Schools ensures that the reservation policies are strictly followed. The University provides reservation for the Children with Special Needs for admission to various programmes under the University.

### Quality and Excellence

Earnest efforts have been underway to strengthen and consolidate University's achievements in the areas of inter-disciplinary teaching and research following the initiatives it has taken in the recent past in ensuring curriculum revision, syllabus updating, examination reforms and faculty development. The programmes offered in the University Schools and Departments are under the CSS scheme followed in universities across the country. Academic autonomy is the uniqueness of the Schools/Departments/Centres that promote inter-disciplinary research. Inter University Centres are also responsible for promoting participatory and inter-disciplinary research. As part of the drive for improving quality and excellence, the University has improved on the following

### Curricular Aspects

Mahatma Gandhi University envisages a long-term, sustainable academic environment with a view to excelling in the field of higher education by catering to the scholastic and developmental needs of its stakeholders, through continuous creation of critical knowledge base for the society's sustained and inclusive growth. The focus of the University is on the all-round development of the individual, who is expected to become skilled, cultured, socially conscious and socially useful through education. This is made possible

through the wide range of academic programmes that are available (UG, PG, Integrated Masters, MPhil, PhD, Integrated PhD, Certificate courses, Diploma, PG Diploma) for the students to opt for. In addition, the University is also gearing up to introduce new Courses through the MOOC programmes. The University follows the guidelines put forward by the relevant regulatory bodies like University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Council for Teacher Education (NCTE), Pharmacy Council of India (PCI), Rehabilitation Council of India (RCI), Indian Nursing Council (INC), Bar Council of India (BCI) and Kerala State Higher Education Council while designing the curriculum. In addition, feedback from various stakeholders is also taken which helps in developing the curriculum. Introducing Open course programmes in the University Schools/Departments/Centres have further increased the academic flexibility of post graduate studies.

## Teaching, Learning and Evaluation

The Credit and Semester System (CSS) of the University aims at flexibility in curriculum development, objectivity and critical approach in examination patterns, use of continuous evaluation for assessment in all educational programmes in the university campus. The CSS is also meant to provide meaningful common criteria as per the national pattern to transfer credits when students move from one institution to another within or outside the country.

CSS seeks to ensure a uniform pattern of course design, course teaching, evaluation system, academic calendar and examination time-table for all MA., M Sc., MEd., LLM, MTM, MBA., MPEd, M Tech, integrated BSc-MSc, M Phil., integrated M Sc-Ph.D and course-work of the conventional PhD programmes. CSS also ensures that all its autonomous Schools/Centre/Institutes enjoy academic flexibility in the conduct of diverse academic programmes.

The Faculty Council in each School/Department/Centre plays an important role in maintaining the quality and standard of teaching imparted. Appropriate remedial and enrichment programmes are designed based on the evaluation of academic outputs and feedback from the students.

Schools/Centres regularly conduct national and international conferences and workshops in which leading experts are invited to deliver lectures. They also interact with the faculty members and students leading to active collaboration and networking. Mahatma Gandhi University through the Erudite programmes (of the State Government) could invite six Nobel Laureates and 56 Scholars in different areas of expertise as Scholars-in-Residence. Various learner-friendly technologies have been introduced to improve and innovate the teaching-learning process.

## Research, Consultancy and Extension

Research, consultancy and extension have been the strongest in creating a new knowledge base. During the assessment period, the University has published more than 1000 papers in international and national Journals. 80 major

research projects and 19 minor research projects have been completed, three industry linked projects were also completed. At present there are 28 ongoing research projects being carried out in the University. The University also conducted 159 workshops, 117 Conferences (national and international). In addition to the Schools/Department/Centres, the University has also 40 affiliated colleges and 46 affiliated research institutes as registered research Centres.

Seven University Schools/Departments have been recognized by various funding agencies for the excellence in research output.Based on the h-index value, which is a measure of the impact and productivity of a group of researchers at a Department or University, the Department of Science and Technology identified 30 Universities with h-index ranging from 42-26 for R&D support during 2010- 2011. Mahatma Gandhi University, Kottayam with an h-index of 35, was ranked 8th among the 30 Universities and ranked first among the Universities in the State of Kerala. University's present h-index is 66 which indicates a remarkable progress in research. Mahatma Gandhi University also won the Chancellor's Award for the best university in the state during 2016 based on its performance in a variety of fields.

Further, a second study was conducted and Second Phase of the PURSE programme based on Research output of the University was done by DST. Based on the h-index value of the publication (66 as per WEB of Science data), the second Phase of PURSE has been sanctioned to 14 Universities in India of which Mahatma Gandhi University is also a recipient. Mahatma Gandhi University was one among the three institutions and the only University in India for having been awarded the 'Obama-Singh 21st Century Knowledge Initiative' an INDO-US collaborative programme by UGC for the period 2012-15. The Research output of Mahatma Gandhi University was again recognised by DST and was sanctioned funds for establishing the SOPHISTICATED ANALYTICAL INSTRUMENTATION FACILITY (SAIF) 2015-2018. Mahatma Gandhi University is the only university in Kerala to be awarded the DBT BUILDER Programme for the period 2012-17. Mahatma Gandhi University was part of India's expedition in Polar Regions.

Schools/departments of the University have had wide ranging extension programmes to share its expertise and resources with other institutions and the society at large. A large number of collaborations have also been established with institutes in India and abroad as well as with industries which further helped to improve the research output of the University.

**Infrastructure and Learning Resources**

The University has a Planning Board headed by the Vice-Chancellor and it consists of nominees of the Chancellor, UGC and State Planning Board followed by Registrar, Finance Officer and members nominated by various teaching departments. University gets financial assistance from the central and the state governments. The Planning and Development wing of the University deals with the day-to-day affairs related to submission of proposals related to infrastructure, asset management, and space management.It includes

mobilization and administration of plan funds from the State, UGC, sponsoring bodies like Department of Science and Technology, Department of Bio-technology, Indian Council of Medical Research, Indian Council of Social Science Research, Council of Scientific and Industrial Research, Kerala State Council for Science, Technology and Environment (KCSTE) etc.

The University has a total built up area of 1,64,844sq.m (which includes the main campus and other campuses). The University has five  hostels (two for boys and three for girls) which provide accommodation to almost 425 students. The University faculties have been able to improve the research infrastructure facility (major equipments) by bringing in an amount of 27.85crores through projects and State plan funds. In addition, the Department of Science and Technology through FIST, PURSE & SAIF; KSCSTE through the SARD and DBT through its BUILDER greatly improved the research infrastructure facilities.

Free Wi-Fi is available in the campus and hostels. The University has started installing High Speed Wireless Networking in the campus. This has facilitated the initiation of the e-governance programme being implemented in the University.

Mahatma Gandhi University Library and Information System consists of University Library, libraries of the Schools and four study Centres placed in different affiliated colleges under the jurisdiction of the University.The University Library was established in 1989. Situated in the main campus, it occupies purpose - built accommodation, and provides a variety of facilities and has a user-friendly environment. The library has a collection of 59,000 books, 253 journals, 2135 PhD theses and has access to 15000+ e-journals under E-ShodhSindhu. The activities of the Library are comprehensively automated using open source Library management software KOHA.

Edmodo, open-source software is implemented in some Schools of the University to facilitate transparency and ease in evaluation in a student/teacher-friendly manner without compromising the reliability and validity studies.

**Student Support and Progression**

According to the guidelines of CSS, Faculty Advisors are appointed for the welfare of the students of each PG Programme. Students are helped to choose appropriate electives and open courses. Each student is allotted a guide to prepare their dissertation as per the curriculum.

The Schools/Centres ensure smooth induction of fresh batches at the beginning of the academic session through an orientation programme. This orientation programme includes a welcome to the newcomers by the senior batches in which they are also introduced to the programmes, courses and the curriculum. The new comers are guided by the teaching and non-teaching staff to familiarize with the formalities after admission and help them adapt to the new environment. The senior students also render all possible support

whenever required. The students are provided with necessary guidance and counselling by the counsellors, teachers and wardens. The students are under the guidance of a faculty member who takes care of all aspects of mentoring including counselling, emotional, intellectual, moral and personal support. The University helps and encourages the students to avail various scholarships and grants like E-Grants, ASPIRE, INSPIRE, KCSTE, KVPY etc. During the last five years students belonging to different categories including PhD scholars have received 65% of their financial assistance from the Central Government and 35% from the state government. The University has several schemes for differently abled children (in School of Behavioural Sciences). The University has various schemes for skill development (spoken English, computer literacy, etc.), Additional Skill Acquisition Program (ASAP), Health Centre, Health Insurance etc. The 'Obama-Singh Knowledge Initiative' established in the School of Environmental Sciences has helped in developing student and faculty exchange programmes. The International and Inter-University Centre for Nanoscience and Nanotechnology has also had student exchange programmes with collaborating universities. The School of International Relations and Politics has collaborative academic ventures with institutions in France and China.

The University provides on an average 175 fellowship to Research Scholars who do not have any other fellowships but have qualified the University entrance examination for PhD registration.

The Department of Student Services of Mahatma Gandhi University organizes workshops/orientation programmes for teachers and students on various topics such as women counseling, campaign against ragging, career guidance, student magazine editing, ill effects of alcoholism, inter collegiate/university youth programmes, inter university youth festivals with cash awards to winners of cultural activities etc. Mahatma Gandhi University Union organizes Youth festival annually to promote art and cultural talents among the students. It also aims at encouraging camaraderie and fellowship among young artists by giving them an opportunity to display their talents on a common platform.Mahatma Gandhi University National Service Scheme has 205 units and more than 20,000 volunteers from the Arts and Science colleges of Kottayam, Ernakulam, Pathanamthitta, Idukki and Alappuzha Districts and from Mahatma Gandhi University Campus. Mahatma Gandhi University was awarded Indira Gandhi NSS National award for the Best University, 2013-14. During the year 2014-15 Mahatma Gandhi University Volunteers Manoj George and Aishwarya Lakshmi bagged the Indira Gandhi National Service Scheme Award for the Best Volunteers. All the three awards were presented by the Hon'ble President of India at a formal function held at the Durbar Hall of the Rashtrapathi Bhavan, New Delhi. During the year 2015-16 M.G University secured the NSS State Award.

**Governance Leadership and Management**

There is a collective leadership in the University and regular meetings and interactions with the stakeholders are held. The Vice - Chancellor interacts with various administrative departments through the Registrar. The Syndicate

is the decision making body, the Senate is the advisory body and Standing Committee of the syndicate under the chairmanship of Vice-Chancellor meets regularly with a prior agenda. Minutes are prepared, follow up measures are carried out and a continuous process of brainstorming and discussions on the issues at hand are taken up. Academic Council is responsible for the maintenance of standards of curricula, research, education and examination. The Deans, Convener of Credit and Semester System (CSS), Chairpersons-Boards of Studies (BoS), Director IQAC, University Research Committee and other designated officials are responsible for introducing new programmes, restructuring the existing ones and innovate the methods of teaching in the emerging areas of interest. The College Development Council (CDC) caters to the developmental needs of the affiliated institutions. The Director for Research ensures the quality of the research programmes by conducting entrance test, course work and periodic doctoral committee meetings. The Faculty Council meetings at various Schools/Departments/Centres ensure participatory decision-making. National/ International experts in the field concerned serve the editorial boards of journals. Involvement in research activities is treated as one of the outlets for exposing the professional talents of the teaching faculty. Acknowledging this fact, the University promotes all initiatives on the part of the teaching faculty for research oriented programmes. The IQAC has institutionalized several good practices to improve, innovate, assure and sustain quality in teaching, learning, research and administration on campus. By introducing academic audit and administrative audit, IQAC facilitated internal quality checks for the university. Feedback of teaching-learning process, self-appraisal by teachers and grievance redressal mechanism are some of the outcomes of internal quality checks. IQAC evolves strategies to improve the academic and administrative functions of the University.

**Innovation and Best Practices**

University has taken several initiatives towards generating environmental consciousness amongst its stakeholders through activities extending to students, teachers, administrative staff and general public. The main campus at the Priyadarsini Hills as well as the satellite campuses are maintained as eco-friendly that reflects the environmental policy of the University. The University has introduced environmental studies, component in all the UG programmes. As a part of the efforts initiated by Mahatma Gandhi University towards a sustainable future, a comprehensive 'Green Audit' has been conducted. The responsibility of conducting the 'Energy Audit' was assigned to Kerala State Productivity Council – a Kerala state government undertaking and 'Environment Audit' was assigned to the School of Environmental Sciences (SES). Rain water harvesting has been done on a major scale in most of the existing buildings and the University has one of the biggest water conservation ponds in the country with a size of 53 m x 40 m x 22 m.  It holds approximately 4.5 Crore litres of water which meets the water needs of the University. The University has initiated steps to implement e-governance in full scale to promote carbon neutrality in its campuses.The University has entered into a tie-up with Clean Kerala Company for the removal of  e-waste from the campus through buy-back schemes. The University has set up a

Business Incubation and Innovation Centre (BIIC) in 2016 with a view to generating the entrepreneurial spirit of youth and providing customized support to early stage business ideas with high growth potential. The University also offers effective legal services and counselling for students and other stakeholders.

# Profile of the University

## 1. Name and Address of the University:

| | |
|---|---|
| Name | MAHATMA GANDHI UNIVERSITY |
| Address | PRIYADARSINI HILLS P.O |
| City: KOTTAYAM | Pin: 686560 | State: KERALA |
| Website: | www.mgu.ac.in |

## 2. For Communication

| Designation | Name | Telephone with STD Code | Mobile | Fax | Email |
|---|---|---|---|---|---|
| Vice-Chancellor | Dr. Babu Sebastian | O: 0481-2731001<br>R:0481-2731000 | 9447128373 | 0481-2731002 | vc@mgu.ac.in |
| Pro-Vice Chancellor | Dr. Sheena Shukkur | O: 0481-2731005 | 8547889278 | 0481-2732000 | pvc@mgu.ac.in |
| Registrar | Prof. M.R.Unni | O: 0481-2731007<br>R: 0481-2731006 | 9562863686 | 0481-2731009 | registrar@mgu.ac.in |
| Steering Committee / IQAC Co-ordinator | Dr.Sabu Thomas | O: 0481-2730003<br>R: 0481-2597914 | 9447223452 | | sabuthomas@mgu.ac.in |

**3. Status of the University**: State University

**4. Type of University**: Affiliating

**5. Source of Funding**: Central Government and State Government

**6. a. Date of Establishment of the University**: **02/10/1983**

    **b. Prior to establishment of the University, was it a/an ........** : N/A

**7.** **Date of recognition as a University by UGC or any other National Agency**

| Under Section | dd | mm | yy | Remarks |
|---|---|---|---|---|
| 2f of UGC | 02 | 10 | 1983 | |
| 12B of UGC | 27 | 06 | 1988 | |

**8.** **Has the University been recognized**

  **a.** **By UGC as a University with Potential for Excellence**:  No

  **b.** **For its Performance by any Other Governmental Agencies**:  Yes

  - **Adjudged as the Best University Excellence in Kerala in 2016 by the Chancellor.**

  - **Obama-Singh 21st Century Knowledge Initiative under the INDO-US collaborative programme - UGC 2012.**

  - **Promotion of University Research, Science and Education (PURSE) programme by Department of Science and Technology, New Delhi.**

  - **Sophisticated Instrumentation Analytical Facility (SAIF) by Department of Science and Technology, New Delhi.**

  - **DBT BUILDER Programme for promotion of interdisciplinary studies in Science, Education and Research by Department of Biotechnology, New Delhi.**

  - **Nanomission programme for International and Inter University Center for Nanoscience and Nanotechnology by Department of Science and Technology, New Delhi.**

  - **Departments have been recognized by DST/FIST, UGC/ SAP/DRS and KSCSTE/SARD.**

  - **Ingenuity Laboratory to be established in collaboration with University of Alberta, Canada.**

  - **Indira Gandhi NSS National award for the Best University, 2013-14.**

**9.** **Does the University have Off-Campus Centres?**  No

**10.** **Does the University have off-shore campuses?**  No

**11.    Location of the Campus and area:**

|  | Location | Campus area in acres | Built up area in sq.mts |
|---|---|---|---|
| Main campus area | Athirampuzha University Campus (Rural) | 103.28 | 107924.00 |
| Other campuses in the country | Within the territorial jurisdiction of the University | 60.2019 | 56920.00 |
| Campuses abroad | NA | NA | NA |

**12.    Provide information on the following:**

- **Auditorium/seminar complex with infrastructural facilities**:

    a) University Assembly Hall – 370 seats

    b) Syndicate Hall

    c) Senate Hall

    d) Mini Conference Hall

    All statutory Schools/ Departments of the University have separate seminar halls

- **Sports facilities:**

    - Playground: Floodlit roofed basketball court, 200 mts track, Volleyball court, Handball court, Football/Cricket Ground

    - Gymnasium:  Fitness Centre, Yoga/Wrestling Hall

    - Any other (please specify):100 bedded sports hostel for Boys and Girls

- **Hostel:**

    e) Boys' hostel

    i.    Number of hostels    :    2

    ii.    Number of inmates    :    198

    iii.    Facilities: Basic amenities needed are provided such as:

        - TV

        - Newspapers

        - Wi-Fi

        - Mess run by students

        - Uninterrupted water supply

        - Guest Accommodation

- Transport facility from hostel to various schools/departments

f) Girls' hostel

   i.      Number of hostels   :    3

   ii.     Number of inmates  :    226

   iii.    Facilities:  Basic amenities needed are provided such as:

- TV
- Newspapers
- Wi-Fi
- Guest accommodation
- Mess
- Uninterrupted  water supply
- Transport facility from hostel to various departments

- **Residential facilities for faculty and non-teaching:** 64 staff quarters, 6 staff quarters for statutory officers and 18 AP quarters for personal staff. 12 quarters for teaching staff.

- **University Guest House:** Facilities:  Suite room - 4; A/C Double Room – 4; A/C Single Room - 2; Non-A/C Double Room - 2; Non-A/C Single Room - 8; Dormitory - 2.

- **Cafeteria:** Two canteens in the University Campus. One meant for staff and public and the other meant for students. Besides these, there are eight cafeterias in the University Campus.

- **Health Centre**

  Nature of facilities available: impatient, outpatient, ambulance, emergency care facility, etc.

  There is a six bedded Health Centre in the University with modern diagnostic facilities. There are two medical officers, one of whom is a lady doctor. There are two nurses in health centre. The centre dispenses basic medicines and one dressing room for basic injuries. There is a gymnasium for women members of the staff and girl students and a lady instructor to provide necessary guidance.

- **Facilities like banking, post office, book shops, etc.**

  1. The State Bank of Travancore has established the branch in the University (IFSC Code: SBTR0000669). There are 3 ATMs and one CDM in the Campus.

2. There is a Post Office (Priyadarsini Hills Post Office, Kottayam-686560)

3. The Department of Printing and Publishing has a book shop in the campus where books published by the University as well as other publishers are displayed for sale.

- **Transport facilities to cater to the needs of the students and staff**

The University operates bus services between the main campus and Kottayam/Ettumannor for both staff and students.

- **Facilities for persons with disabilities**

The University has tried to ensure disabled-friendly design in the construction of buildings (ramps in the main administrative block, new Pareeksha Bhavan, ramps, wheel chairs and disable-friendly toilets in schools etc.) A host of other facilities like wheel chair, battery operated vehicle etc. have also been ensured.

- **Animal house:**

For scientific experiments, the University has an animal house in the School of Biosciences observing all norms in this regard.

Incinerator for laboratories: No incinerators have been installed in the laboratories. Steps are being taken to install the same.

- **Power House:** The University is a HT power consumer and an 11 KV Substation has been set up in the campus for power distribution.

- **Waste management facility**

Solid Waste Management:

Solid wastes like waste paper, old question paper, answer scripts, damaged furniture etc. are disposed through contract arrangement with agencies. Sanitary napkin destroyers have also been installed in the ladies toilets in the University Office and statutory schools/ departments.

Food Waste Management:

For effective management of food waste in the canteens of the schools, a biogas plant has been constructed and it can accommodate 80% food waste generated. The remaining food waste is deposited in pits dug in designated places in the campus. Further, proposals are in the pipeline for construction of incinerators, biogas plants/compost tanks in the campus.

**13. Number of institutions affiliated to the University**

| Type of Colleges | Total | Permanent | Temporary |
|---|---|---|---|
| Arts, Science and Commerce | 192 | 56 | 136 |
| Law | 7 | 1 | 6 |
| Medicine* | | | |
| Engineering | 43 | 3 | 40 |
| Education | 43 | 7 | 36 |
| Management | | | |
| Others | | | |
| Hotel Management | 1 | | 1 |
| Music & Fine Arts | 1 | 1 | |
| Architecture | 7 | | 7 |
| Physical Education | 1 | | 1 |

*Recently all the medical colleges have been re-affiliated to the Kerala University of Health and Allied Sciences

**14. Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University.**

Yes. Number of Autonomous Colleges – 10

**15. Furnish the following information**

| Particulars | Number | Number of Student |
|---|---|---|
| University Schools | 15 | |
| „ Departments | 2 | |
| International and Inter University Centre | 1 | 1443 |
| Inter University Centres | 7 | |
| Inter School Centres | 9 | |
| Research Centres on the campus | 27 | |
| Constituent colleges | 7 | 6158 |
| Affiliated colleges | 261 | 1,92,663 |

| | | |
|---|---|---|
| Colleges under 2(f) | 71 | |
| Colleges under 2(f) and 12B | 71 | |
| NAAC accredited colleges | 67 | |
| Colleges with Potential for Excellence (UGC) | 9 | |
| Autonomous colleges | 10 | |
| Colleges with Postgraduate Departments | 142 | |
| Colleges with Research Departments | 40 | |
| University recognized Research Institutes/Centres | 46 | |

16. **Does the University confirm to the specification of Degrees as enlisted by the UGC**:   Yes.

17. **Academic programmes offered by the University Departments at present, under the following categories**

| Programmes | Number |
|---|---|
| UG | 20 |
| PG | 46 |
| Integrated Masters | 1 |
| M.Phil | 27 |
| Ph.D | 62 |
| Integrated Ph.D | 5 |
| Certificate | 5 |
| Diploma | 2 |
| PG Diploma | 2 |
| M.Tech | 3 |
| Short Term Courses | 8 |
| Total | 181 |

18. **Number of working Days during the last academic year**:  216

19. **Number of teaching days during the past six academic years**

    a.   179.        b. 186          c. 191          d. 185          e. 192     f. 188

20. **Does the University have a Department of Teacher Education?**  Yes.

    Year of Establishment: 1992

    NCTE recognition details: No. F.K.L/Med/SRO/NCTE/2005-2006   Date: 05/02/2005

    Is the Department opting for assessment and accreditation separately?  No.

21. **Does the University have a Department of Physical Education?**   Yes.

    Year of Establishment:  1983

    NCTE recognition details:  NA

    Is the Department opting for assessment and accreditation separately?  No.

22. **In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered?**  NA

23. **Has the University being reviewed by any regulatory authority? If so, furnish a copy of report and action taken there upon**:  No.

24.    Number of Positions in the University

| Positions | Teaching Faculty | | | Non-teaching Staff | Technical Staff |
|---|---|---|---|---|---|
| | **Professor** | **Associate Professor** | **Assistant Professor** | | |
| Sanctioned by the UGC/University/State Govt | 14 | 26 | 88 | 1953 | |
| Recruited | 22* | 24 | 45 | 1753 | |
| Yet to be Recruited | 37 | | | 200 | |
| Number of persons working on contract | | | | 258 | |

   * Increased number is due to promotions

## 25. Qualifications of Teaching Staff

| Highest Qualification | Professors | | Associate Professors | | Assistant Professors | | Total |
|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | |
| *Permanent Teachers* | | | | | | | |
| D.Sc./D.Litt. | 1 | - | - | - | - | - | 1 |
| Ph.D. | 17 | 4 | 16 | 5 | 27 | 8 | 77 |
| M.Phil. | - | - | 1 | 2 | 2 | 3 | 8 |
| P.G. | - | - | - | - | 2 | 3 | 5 |
| *Temporary Teachers (Guest Faculty)* | | | | | | | |
| Ph.D. | - | - | - | - | 8 | 5 | 13 |
| M.Phil. | - | - | - | - | 8 | 4 | 12 |
| P.G. | - | - | - | - | 10 | 16 | 26 |

## 26. Emeritus, Adjucnt and Visiting professors

| | Emeritus | Adjunct | Visiting |
|---|---|---|---|
| Numbers | 03 | - | 05 |

## 27. Chairs instituted by the University

| Chairs |
|---|
| 1.  Dr Paulos Mar Gregorios Chair |
| 2.  Nelson Mandela Chair for Afro-Asian Studies |
| 3.  KPS Menon Chair for Diplomatic Studies |
| 4.  K.R.Narayanan Chair for Human Rights and Social Justice |
| 5.  Kuriakose Elias Chavara Chair |
| 6.  Sree Narayana Guru Chair |
| 7.  Linus Pauling Chair |
| 8.  The Chair on Hybrid Materials |
| 9.  The Chair on Nanoscience and Nanotechnology |
| 10.  G Sankarakurup Chair |
| 11.  R Narendra Prasad Chair |
| 12.  I C Chacko Chair |
| 13.  Vivekananda Chair |
| 14.  C H Muhammed Koya Chair |
| 15.  Dr. B.R. Ambedkar Chair |
| 16.  Kannassa Poets Chair |
| 17.  Pala Narayanan Nair Chair |
| 18.  Vaikom Muhammed Basheer Chair |
| 19.  Rajiv Gandhi Chair for Public Policy Studies |

28. **Students enrolled in the University departments during the current academic year with following details**

Post Graduate programme:

| Academic Year | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | 2015-16 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| General | 67 | 124 | 81 | 124 | 83 | 125 | 82 | 128 | 81 | 130 | 87 | 135 |
| OBC | 23 | 42 | 28 | 41 | 29 | 43 | 29 | 44 | 27 | 44 | 26 | 45 |
| SC | 18 | 32 | 21 | 32 | 22 | 32 | 22 | 28 | 25 | 26 | 23 | 36 |
| ST | 9 | 16 | 11 | 15 | 11 | 15 | 10 | 16 | 12 | 25 | 12 | 16 |
| Total | 117 | 214 | 141 | 212 | 145 | 215 | 143 | 216 | 145 | 225 | 148 | 232 |
| **Total** | **331** | | **353** | | **360** | | **359** | | **370** | | **380** | |

29. **Unit Cost of Education**

    a) including the salary component = Rs.159,99,76,145/200264 = 7989.33

    b) excluding the salary component = Rs. 35,90,62,400/ 200264 = 1792.94

30. **Academic staff College:** Nil.

31. **Does the University offer Distance Education programme (DEP):** No.

32. **Does the University have a provision for external registration of students**: No.

33. **Is the University applying for Accreditation or Re-assessement? If accreditation, name the Cycle.**

    Re-accreditation : Cycle 3

34. **Date of Accreditation**

    Cycle 1: 15/09/2003, Accreditation outcome/Result**: B+**

    Cycle 2: 08/01/2011, Accreditation outcome/Result**:** '**B**' Grade (2.90)

35. **Does the University provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated/costituent/autonomous colleges:** Yes. The Website provides a list of such colleges.

36. **Date of establishment of Internal Quality Assurance cell and dates of submission of Annual Quality Assurance Reports (AQAR )**

    IQAC established on 03/11/2009

    IQAC reconstituted as per NAAC guidelines on 31/10/2015

    AQAR   (i)   2010-11 submitted on 08/08/2016

    (ii)   2011-12 submitted on14/01/2016

  (iii)  2012-13 submitted on10/02/2016

  (iv)  2013-14 submitted on 03/03/2016

  (v)  2014-15 submitted on 10/08/2016

**37. Any other relevant data, the University would like to include (not excluding one page)**

At present, Mahatma Gandhi University offers research programmes in over forty disciplines through its own Schools as well as through its approved research centres. The University has close collaboration for academic, research and extension programmes with a number of national agencies and institutions including the UGC, DST, DRS, ISRO, COSIST, CSIR, DAAD, STEC, ICMR, BRNS, MoES, ICCR, ICHR, IED, IIFT, Institute of Chinese Studies and the Sahitya Akademi. The University is also involved in active collaboration with research institutions of international reputation such as the Max Planck Institute, Germany, University of Nantes, France, California Institute of Technology, USA, University of Toronto, Canada, Catholic University, Belgium, Heidelberg University, Germany, Institute of Political Studies, Rennes, France, POSTECH, South Korea, Brown University, Duke University and Plymouth State University of USA, Technical University, Denmark and Ben-Gurion University, Israel.

The University provides a web-enabled University Library with its large collection of books, journals and e-journals, the online Theses Digital Library with open access to its enviable collection of digitized PhD dissertations. The publishing unit which has brought out hundreds of titles in Malayalam, English and Hindi, the facilities available at the School of Physical Education and Sports Sciences for developing physical culture, the ecologically sensitive extension programmes initiated by the University Departments and the National Service Scheme and the Students' Web Centre with round-the-clock web-support to the campus community are other major facets.

The Department of Science and Technology identified 30 Universities with h-index ranging from 42-26 for R&D support during 2010- 2011. Mahatma Gandhi University with an h-index of 35 was ranked 8 among the 30 Indian Universities and ranked first among all Universities of Kerala. A second Phase of the PURSE grant was sanctioned by DST to 14 Indian Universities including Mahatma Gandhi University based on the h-index value.

Prof. Dr. Sabu Thomas, Hon.Director, International and Inter University Centre for Nanoscience and Nanotechnology has the highest h-index (78), highest number of Citations (28131) and highest number of publications (820) in the state of Kerala as per Google scholar.

Mahatma Gandhi University was one among the four institutions and the only State University in India for having been awarded the "Obama-Singh 21st Century Knowledge Initiative" by UGC for the perid 2012-15.

The Research output of Mahatma Gandhi University was again recognised by DST and the University was sanctioned funds for establishing the Sophisticated Analytical Instrumentation Facility (SAIF) 2015-2018.

Mahatma Gandhi University was the only University in Kerala to be awarded the DBT BUILDER Programme for the period 2012-17.

Mahatma Gandhi University was part of India's expedition in Polar regions.

# CRITERION - I:
# CURRICULAR ASPECTS

# CRITERION - I: CURRICULAR ASPECTS

## 1.1 Curriculum Design and Development

### 1.1.1 How is the institutional vision and mission reflected in the academic programmes of the university?

Mahatma Gandhi University envisions excelling in the field of higher education and catering to the scholastic and developmental needs of the individual, through the continuous creation of a critical knowledge base for the society's sustained and inclusive growth. The focus of the University is on the all-round development of the individual, who is expected to become skilled, cultured, socially conscious and socially useful through education. The idea of social empowerment that the underprivileged individual gains as a result of education is built into the goals and objectives. The institutional goals are effectively translated into the academic programmes, research and extension activities of the University.

The academic consideration pertains to the production, transmission and extension of new knowledge that would facilitate national development through the imparting of advanced skills and aptitude of global demand. The programmes and courses offered by the Schools/Departments/ Centres focus on strengthening of students' knowledge in the respective areas of study and realization of core values. Since all the programmes are interdisciplinary in nature, the objective of the students' holistic development is easily achieved. The Inter School collaboration envisaged under the Credit and Semester System (CSS) makes room for open courses that promote value education and social citizenship. Inter University Centres established by the University promote interdisciplinary participatory research among the research and academic institutions within the State.

Through the range of programmes offered, the university envisages to meet the educational needs of all the stakeholders. The university promotes the use of technological innovations in teaching-learning and governance. Academic autonomy is given to Schools in curriculum design and development. The syllabi are periodically modified in tune with the developments occurring in the concerned disciplines. Advanced level training in several activities of self-development, promotion of community welfare, ensuring equity, ecological justice and environment sustainability are all integral to the university's mission and its objectives.

### 1.1.2 Does the university follow a systematic process in the design and development of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).

Yes. The university follows a systematic process in the design and development of the curriculum as detailed below:

The academic programmes of the University are under the Credit and Semester System (CSS) where a participatory method of curriculum development is followed. The process involves the participation of academic bodies such as Faculty Council, Boards of Studies, respective Faculties and the Academic Council. Based on the need assessment and feedback from the stakeholders, the process of curriculum development is initiated by the Faculty Council, recommended by the respective Boards of Studies and approved by the Academic Council.

Through this process, the contemporaneity and relevance of the programmes offered are ensured keeping in view the societal needs. Once the curriculum and the basic course material have been put in place, the courses are revised and updated on the basis of feedback from various stakeholders. The Boards of Studies in different subjects are as follows:

**Boards of Studies**

| UG Boards | PG Boards | BOS in Schools/Centers |
|---|---|---|
| English | English | School of Behavioural Sciences |
| Malayalam | Hindi | School of Bio Sciences |
| Hindi | Malayalam | School of Chemical Sciences |
| Sanskrit | Mathematics | School of Computer Sciences |
| Arabic | Statistics | School of Environmental Sciences |
| French | | |
| Syriac | Chemistry | School of Gandhian Thought & Development Studies |
| Political Science | Physics | School of Indian Legal Thought |
| History | Botany | School of International Relations & Politics |
| Economics | Zoology | School of Letters |
| Sociology | Economics | School of Management and Business Studies |
| Commerce | History | School of Pedagogical Sciences |
| Islamic History | Commerce | School of Physical Education and Sports Sciences |
| | | School of Pure and Applied Physics |
| | | School of Social Sciences |
| Psychology(UG & PG) | Political Science | School of Tourism Studies |

| | | |
|---|---|---|
| Philosophy(UG & PG) | Computer Science | |
| Mathematics | Education | |
| Statistics | Home Science | |
| Physics | Arabic | |
| Chemistry | Management | |
| Botany | Engineering | |
| Zoology | Master of Social Work | |
| Computer Application | Microbiology | |
| Electronics | | |
| Home sciences | | |
| Food Science and Quality Control | | |
| Microbiology | | |
| Education | | |
| Physical Education | | |
| Management and Business Studies | | |
| Engineering | | |
| Law | | |
| Geology | | |

- The university follows the guidelines put forward by the regulatory bodies such as University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Council for Teacher Education (NCTE), Pharmacy Council of India (PCI), Rehabilitation Council of India (RCI), Indian Nursing Council (INC) and Bar Council of India (BCI) for restructuring the curricula.

- The CSS Academic Advisory Committee regularly monitors and evaluates the Credit and Semester System followed in the university Schools/Departments and Centres.

- In order to make the need assessment, Schools keenly watch the developments in the frontier areas of the disciplines. The proposals for new programmes/courses are initiated by the Schools based on the developments in the discipline, need assessment, expert discussions and feedback from the stakeholders. The faculty members of the Schools on a regular basis interact with various stakeholders including R&D organizations, industry, entrepreneurs and alumni to identify the aptitude, skill and knowledge requirements of the society. These feedbacks are obtained by informal discussions, seminars/workshops and meetings.

- To ensure quality and to keep abreast of the times, the university organises curriculum workshops in different disciplines and subjects to design curriculum not only for the Schools but also for the various programmes offered in its affiliated Colleges. In fact, the University conducted 360 workshops during the assessment period.

**1.1.3 How are the following aspects ensured through curriculum design and development?**

- **Employability**

- **Innovation**

- **Research**

➢ **The University ensures employability by :**

- Introducing Bachelor of Vocational (B.Voc.) programmes in affiliated colleges in ten different specializations to enhance employability.

- Introducing new programmes that include new Certificate, Diploma, PG Diploma, Degree, PG, M Phil, M Tech and PhD programmes including B. Sc. (Cyber Forensic), PG Diploma in Indian Sign Language, Masters in Nanoscience and Nanotechnology, M. Tech/M.Phil. in Computer Science and M. Tech in Polymer Science and Technology.

- Incorporating new courses in emerging areas in the existing programmes. The University makes sure that the contents of all the courses cater to the career needs of the students.

- Providing short term add-on courses on different scientific and computational tools to students.

- Additional Skill Acquisition Programme (ASAP), a joint initiative of Departments of Higher Education and General Education, Government of Kerala, is set up as part of the State Skill Development Project in affiliated colleges to address the existing unemployment issues in Kerala.

- Imparting of English language skills by Centre for English Language and Communication Skills (CELCS).

- Students are given hands-on experience in the state of the art laboratories of the University departments.

- Providing opportunities for students to interact with reputed national laboratories and industries through major projects and industrial visits to enhance employability.

- Conducting capacity building and knowledge up-gradation workshops and skill development programmes in emerging areas.

- Conducting coaching classes for various competitive examinations through University Employment Information and Guidance Bureau.

- The Schools/Centres of the university have taken steps for increasing employability by collaborating with different Government bodies, industries and academic institutions of national & international repute to cater to the needs of the industry/academia.

- There is a Placement and Training Cell headed by a Faculty member which ensures mentoring of the students through special programmes on soft skills, leadership qualities, personality traits, communication skills, essential life skills, internet ethics, and etiquette among the students. Placement and Training Cell co-ordinates soft skill training and placement services in colleges.

- Introducing one School, one International Inter University Centre, seven Inter University Centres, ten Inter School Centres and one Business Innovation and Incubation Centre during the assessment period.

- The university has established a Business Innovation and Incubation Centre (BIIC) in 2016 with the seed capital from the Government of Kerala. The main objective of the BIIC Start-up incubators is to kindle the entrepreneurial spirit among students. It supports job creation, University–Industry collaboration and to generate revenue for local business establishments and governments. The BIIC aims to inculcate among students a culture of job creation as opposed to a culture of job seeking.

➢ **The University ensures innovation by:**

- Designing new and relevant courses in the emerging and frontier areas of knowledge. The curriculum caters to the differential requirements of the society. The PG diploma in Indian Sign Language offered by the University is an example of such innovation.

- Introducing open courses to facilitate multidisciplinary learning, cutting across the limitations of conventional discipline based studies.

- Establishing International Inter University/Inter University Centres for promoting the interdisciplinary/participatory research among the research and academic institutions within the state and across the globe. Eight Inter School Centres have been established for supporting the academic activities of the Schools/Departments of the University.

- Establishing a Business Innovation and Incubation Centre (BIIC), which aspires to support innovations/ incubations/ entrepreneurship by extending administrative, academic and financial support to students through R&D support, start-up grants and patent facilitation.

- Establishing a Centre for Yoga & Naturopathy and Institute of Research in Learning Disability recently to offer programmes of national interest in the above areas.

- Introducing Massive Open Online Course (MOOC)in 2015, in collaboration with North Carolina A&T State University in USA and Kerala State Higher Education Council.

➢ **The University ensures global competency in academic research and output through a comprehensive and holistic series of measures like**

- Introducing project work in the curriculum with a duration of 6 months to one year in different national/international research institutions of repute.

- Establishing research collaborations and promoting inbound and outbound exchange of students and faculty between research institutions across the globe.

- Incorporating individual/group projects to promote students to invent imaginative solutions to the research problems and to make improvements in laboratory protocols/societal problems to groom their career.

- International and Inter University Centres interdisciplinary focuses on participatory research across conventional disciplines in association with academic institutions within the State and across the globe.

- Promoting inter disciplinary research in various frontier areas of knowledge through the establishment of Inter School Centres.

- Providing state-of-the-art infrastructure, sophisticated instruments and parallel computing facility by the University to researchers to supplement curriculum/ advanced research.

- Promoting publication of edited/authored books/ papers in research journals and making it mandatory as part of PhD programmes.

- Providing online access to research references to support the curriculum through the resourceful central and department libraries.

- It is the first Indian University to adopt Open Access to theses of doctoral degrees awarded by the University by establishing an institutional repository of theses (www.mgutheses.org).

- Efforts to address the needs of differently abled students and researchers by promoting research in disability studies.

- Organizing Conferences/ Workshops/Seminars on cutting edge technologies to instil a research culture into the minds of the students.

- Encouraging students to conduct original research work for their degree leading to publications in internationally reputed journals and grant of patents.

- Promoting students to present research papers in national/ international seminars/conferences.

**1.1.4 To what extent does the university use the guidelines of the regulatory bodies for developing and/or restructuring the curricula? Has the university been instrumental in leading any curricular reform which has created a national impact?**

The university follows the guidelines issued by the relevant regulatory bodies like University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Council for Teacher Education (NCTE), Pharmacy Council of India (PCI), Rehabilitation Council of India (RCI), Indian Nursing Council (INC), Bar Council of India (BCI) and Kerala State Higher Education Council in developing and restructuring the curricula.

Mahatma Gandhi University was the first in the state of Kerala to introduce UGC regulations for PhD programme with salient features. Innovative measures taken by the University include introduction of a specialised Centre with dedicated programmes/ research in Disability Studies to support disadvantaged sections of the society.

**1.1.5 Does the university interact with industry, research bodies and the civil society in the curriculum revision process? If so, how has the university benefited through interactions with the stakeholders?**

Yes. Feedback from the various stakeholders are used in the regular updating of syllabi and making the choice of electives thus meeting the requirements of the academia and industry. Intensive ongoing research interactions with organizations like DST, ICSSR, CSIR, DBT, ICMR, ICCR, KILA, CDS, AICTE, DRDO, ISRO, BRNS, and KSCSTE etc. have made an impact on the curriculum development process. Due to such interactions, the global trends in higher education are reflected in the curriculum. For developing the curriculum, experts from institutions like Raman Research Institute, Bangalore and Rubber Research Institute of India, Kottayam and experts from industries such as SABIC, Apollo Tyres, MRF Tyres etc. are being consulted. The University is considerate to comply with the genuine insights of the stakeholders in the curriculum development process.

**1.1.6 Give details of how the university facilitates the introduction of new programmes of studies in its affiliated colleges.**

Affiliated institutions are statutorily allowed to apply for starting new programmes/courses every year based on regional requirements. The Syndicate delegates a Commission to assess the physical and infrastructure facilities available in the College and its report is eventually considered by the Syndicate and the State Government. Once the programme is sanctioned by the Government, the Syndicate grants affiliation to the new programmes/courses. In all cases when new courses/programmes are introduced, the Board of Studies conducts detailed discussions and workshops for the formulation of the curriculum. The recommendations of the Board of Studies are placed before the Academic Council for formal approval.

**1.1.7 Does the university encourage its colleges to provide additional skill-oriented programmes relevant to regional needs? Cite instances (not applicable for unitary universities).**

- Additional Skill Acquisition Programme (ASAP), a joint initiative of Departments of Higher Education and General Education, Government of Kerala which is set up as part of the State Skill Development Project to enhance the employability of students is promoted by the University through its colleges.

- The university has introduced B.Voc. degree Programmes, which incorporate specific job roles along with broad based general education, with ten different specializations in five Colleges. The programmes are

  - B.Voc. Animation and Graphic Design
  - B.Voc. Fashion Technology
  - B.Voc. Food Processing Technology
  - B.Voc. Logistics Management
  - B.Voc. Marketing Management and Information Technology
  - B.Voc. Renewable Energy
  - B.Voc. Retail Management and Information Technology
  - B.Voc. Sports Nutrition and Physiotherapy
  - B.Voc. Sustainable Agriculture
  - B.Voc. Tourism and Hospitality

- The university has specifically designed Model II (vocational) programmes at the U.G. level in different disciplines to enhance employment potential.

- The university facilitated establishment of six Community Colleges in the affiliated Colleges which offer tailor made skill oriented programmes specific to the regional needs.

- The university has facilitated starting of add-on courses in its colleges with UGC support. The office of the Director, College Development Council has an active role in starting such skill oriented programmes.

## 1.2 Academic Flexibility

### 1.2.1 Furnish the inventory for the following:

- **Programmes taught on campus:**

| Sl. No. | Department | Level of the Programme | Subject |
|---|---|---|---|
| 1 | School of Behavioural Sciences | PG Diploma | Indian Sign Language |
| | | | Counselling Psychology |
| | | PG | Disability Studies and Rehabilitation Sciences |
| | | | Psychology |
| | | M.Phil. | Behavioural Medicine & Rehabilitation |
| | | | Rehabilitation Psychology |
| | | | Special Education & Rehabilitation Sciences |
| | | | Behavioural Sciences and Rehabilitation Nursing |
| | | Ph.D | Special Education |
| | | | Psychology |
| | | | Behavioural Medicine |
| | | | Rehabilitation Nursing |
| 2 | School of Biosciences | PG | Microbiology |
| | | | Biochemistry |
| | | | Biotechnology |
| | | | Biophysics |
| | | M.Phil. | Biosciences |
| | | Ph.D | Microbiology |
| | | | Biochemistry |
| | | | Biotechnology |
| | | | Biophysics |
| | | | Physiology |
| 3 | School of Chemical Sciences | PG | Organic Chemistry |
| | | | Inorganic Chemistry |
| | | | Physical Chemistry |
| | | | Polymer Chemistry |
| | | M.Phil. | Inorganic Chemistry |
| | | | Organic Chemistry |
| | | | Physical Chemistry |
| | | | Polymer Chemistry |
| | | M.Tech | Polymer Science &Technology |

| | | | Malayalam |
|---|---|---|---|
| | | M.Phil. | English |
| | | | Theatre Arts |
| | | | English |
| | | | Malayalam |
| | | Ph.D | Theatre Arts |
| | | | Cultural Studies |
| | | | Comparative Literature |
| 10 | School of Management and Business Studies | PG | MBA |
| | | M.Phil. | Business Studies |
| | | Ph.D | Management |
| 11 | School of Pedagogical Sciences | PG | M.Ed |
| | | M.Phil | Education |
| | | Ph.D | Education |
| 12 | School of Physical Education & Sports Sciences | PG | M.P. Ed. |
| | | Ph.D | Physical Education |
| 13 | School of Pure and Applied Physics | PG | Physics |
| | | M.Phil | Physics |
| | | Ph.D | Physics |
| 14 | School of Social Sciences | PG | History |
| | | | Anthropology |
| | | M.Phil. | Social Sciences |
| | | | Social Transformation and Empowerment |
| | | | Human Ecology & Natural History |
| | | Ph.D | Social Sciences |
| 15 | School of Tourism Studies | PG | Master of Tourism and Travel Management (MTTM) |
| | | Ph.D | Tourism Studies |
| 16 | Department of Life Long Learning and Extension | Certificate Programmes | Yogic Science |
| | | | Counselling |
| | | | Management of Learning Disabilities |
| | | | Organic Farming |
| | | Diploma Programmes | Yogic Science |
| | | | Organic Farming |
| 17 | International and Inter University Centre for Nanoscience and Nanotechnology | PG | Nanoscience and Nanotechnology |
| | | M.Phil | Nanoscience and Nanotechnology |
| | | Ph.D | Nanoscience and Nanotechnology |
| | | Integrated M.Sc.-Ph.D | Nanoscience and Nanotechnology |

| 18 | Advanced Centre for Environmental Studies and Sustainable Development | Ph.D | Environmental Science |
|---|---|---|---|
| | | | Chemistry |
| | | | Forestry |
| | | | Human Ecology |
| | | | Climate Change |
| | | | Environmental Pollution |
| | | | Social Science |
| | | | Life Science |
| | | Short Term Certificate Programme | Advanced Analytical Instrumentation |
| 19 | Inter University Centre for Bio Medical Research & Super Speciality Hospital | Ph.D | Bio Medical Research Drug Design and Development |
| 20 | Inter University Centre for Disability Studies | Short Term Certificate Programme | Early Assessment and Management Services |
| | | | Speech Therapy |
| | | | Physiotherapy |
| | | | Psychological Assessments |
| | | | Counselling Services |
| | | | Disability Assessments |
| | | M.Phil | Disability Studies |
| 21 | Inter University Instrumentation Centre | Ph.D | Chemistry Physics Biology Environmental Science Nanoscience |
| | | Short Term Course | Analytical Instrumentation |
| 22 | Inter University Centre for Social Science Research and Extension | Ph.D | Human Geography |
| | | | Human Ecology |
| | | | Social Transformation Studies |
| | | | Gender Studies |
| | | | Tribal Studies |
| | | | Sustainable Development Studies |
| | | | Praxis Intervention |
| 23 | Advanced Molecular Materials Research Centre | Ph.D | Material Science |

| 24 | Centre for English Language and Communication Skills | Certificate Programmes | Post Graduate Certificate in English Communication |
|---|---|---|---|
| 25 | Institute for Intensive Research in Basic Sciences | 5 Year Integrated Masters | Integrated Inter Disciplinary MS Programme in Chemistry, Physics and Biology |
| | | Integrated Ph.D | Chemistry |
| 26 | Dr.K.N.Raj Study Centre for Planning and Centre-State Financial Relations | PG | Economics |
| 27 | National Institute of Plant Science Technology | M.Sc-Ph.D Integrated | Plant Science and Technology |
| 28 | University College of Engineering | UG | B Tech (Computer Science & Engineering) |
| | | | BTech (Electronics & Communication Engineering) |
| | | | B Tech (Electrical & Electronics Engineering) |
| | | | B Tech (Information Technology) |
| | | | B Tech (Polymer Engineering) |
| | | PG | M Tech (Applied Electronics) |
| | | Ph.D | Electronics |
| 29 | School of Technology and Applied Sciences | UG | B Tech. Polymer Engineering |
| | | | B Sc. Computer Science |
| | | | B Sc. Electronics |
| | | | B Sc. Cyber Forensic |
| | | PG | MCA |
| | | | M Sc. Applied Electronics |
| | | | M Sc. Computer Science |
| | | | M Sc. Space Science and Technology |
| | | Ph.D | Electronics |
| | | | Physics |
| | | | Material science |
| | | | Polymer Technology |
| 30 | School of Applied Life Sciences | PG | M Sc. Fishery Biology & Aquaculture |
| | | M.Phil | Fishery Biology & Aquaculture |

| 31 | School of Medical Education | UG | B Sc. Nursing |
| | | | B Sc. Medical Laboratory Technology |
| | | | Bachelor of Physiotherapy |
| | | | BSc Medical Radiological Technology |
| | | | B Pharm |
| | | | B Sc. Medical Microbiology |
| | | PG | M Pharm (A) Pharmaceutics |
| | | | M Pharm (B) Pharmacology |
| | | | Master of Hospital Administration |
| | | | Master of Public Health |
| | | | Master of Physiotherapy |
| | | | Master of Medical Documentation |
| | | | M Sc. Medical Microbiology |
| | | | M Sc. Medical Biochemistry |
| | | | M Sc. Medical Anatomy |
| | | | Master of Biomedical Instrumentation |
| | | Ph.D | Pharmacy |
| 32 | University College of Teacher Education | UG | B Ed |
| 33 | School of Communication & Journalism | PG | Master of Arts in Journalism and Mass Communication (MAJMC) |
| 34 | Department of Library & Information Science | UG | B L I Sc. |
| | | PG | M L I Sc. |

➢ **Overseas programmes offered on campus**:

- Mahatma Gandhi University conducts overseas programme on Global Understanding through its Massive Open Online Course (MOOC) with the programme developed by North Carolina A & T State University, USA funded by Kerala State Higher Education Council that enables the university to reach overseas audience.

- School of International Relations and Politics has agreements with the following institutions:

  1. Institute of Political Studies, Rennes, France

  2. The Institute of Political Studies, Bordeaux, France.

  3. Jinan University, China

This enables the School to offer courses specific to developing countries for a period of two semesters to the students of the above French institutions.

- The School of International Relations and Politics had offered a one month course to the undergraduate students of Earlham College, Indiana, USA as part of the College's programme on understanding the Government and Politics of India.

- Overseas students visit International Inter University Centre for Nanoscience and Nanotechnology to perform bachelor, master and Ph.D projects and the resulting credits are transferred to the parent institute abroad.

➢ **Programmes available for Colleges to choose from:**

**UG Programmes:**

- Bachelor of Arts

- Bachelor of Science

- Bachelor of Commerce

- Bachelor of Technology

- Bachelor of Business Administration

- Bachelor of Business Management

- Bachelor of Computer Application

- Bachelor of Fashion Technology

- Bachelor of Physical Education

- Bachelor of Tourism and Travel Management

- Bachelor of Vocational (B Voc)

- Bachelor of Law

- Bachelor of Pharmacology

- Bachelor of Education

- Bachelor of Pharmacology

- Bachelor of Physiotherapy

- Bachelor of Library And Information Science

- Bachelor of Social Work

**PG Programmes:**

- Master of Arts

- Master of Science

- Master of Commerce

- Master of Technology

- Master of Tourism and Travel Management

- Master of Communication and Journalism

- Master of Management in Hospitality

- Master of Social Work

- Master of Law

- Master of Business Administration

- Master of Human Resource Management

- Master of Computer Applications

The programmes are given in a wide variety of subjects ranging from traditional disciplines to professional and vocational subjects.

**1.2.2    Give details on the following provisions with reference to academic flexibility**

**a.    Core / Elective options:**

As per the Credit and Semester (CSS) regulations of the university, core/elective options are open to all students of different programmes. Students can choose the electives offered by the parent department in every semester based on their aptitude and relevance of the course in consultation with the Faculty Advisor. The wide array of electives enables the student to opt for specialisation, besides providing considerable flexibility.

**Open Course**: In addition to this, CSS provides provision for open courses conducted by a School/Centre/Institute other than the parent department. Every regular postgraduate student is required to choose an open course of 4 credits in the third semester. It offers a student the opportunity to attend courses offered by another school /faculty.

**b.    Enrichment courses:**

The opportunities provided via open courses under CSS are meant for the overall enrichment of the courses that students take from the parent department. Besides, Schools also offer supplementary enrichment programmes. Some of the enrichment courses offered by the Schools are listed below:

- School of Behavioural Sciences:    Conducts open courses in Counselling/ Disability Studies and add on courses in Indian Sign Language, Statistical Package for Social Sciences, Basic Concepts of Statistical Inference, and evening course on Learning Disabilities etc.

- School of Biosciences/ School of Chemical Sciences: Conducts UGC-CSIR orientation programmes for students.

- School of Computer Sciences: As part of the Spoken Tutorial project (an initiative of NMEICT, MHRD, Govt. of India), students and research scholars of the School are given short add on courses on different software and scientific and computational tools, which are relevant to their curriculum. The School also offers regular skill enhancement workshops/ seminars on emerging areas. Remedial/Bridge courses (pre-requisite for advanced courses in third semester) are offered during vacation time.

- School of Environmental Sciences: Offers two open courses to give awareness to the students of other disciplines on environment, natural resource utilization, waste management and sustainable development. A MOOC programme was conducted in collaboration with Indian Institute of Remote Sensing (IIRS) and ISRO for M Sc. and M Phil students. The School also offers EDUSAT Based Online Outreach Programme in Basics of Remote Sensing, Global Navigational Satellite System (GNSS) and GIS for M Sc., M Phil and diploma students.

- School of Letters: The open courses by the School expose the students to areas of film and literary studies.

- School of International Relations and Politics offers open courses in the human rights and Public Polices which help sensitise the stakeholders of the imperatives of these areas in their programmes of study.

- School of Management and Business Studies: Offers certificate courses on Tally Software, Language Learning, Business Analytics and Intelligence etc.

- School of Pure and Applied Physics: Offers a course in Computational Physics, teaching Numerical Methods and a Programming Language. This is complemented with Practical with MATLAB so that the students gain programming skills. Training programs/workshops in Open Source Software are also offered in the School.

- School of Tourism Studies: Offers training in SPSS Software, ODLL Communication Software, Computerized Reservation Systems and Remedial courses for student empowerment.

- International & Inter University Centre for Nano science& Nanotechnology: Conducts special course on Research Methodology and Social, Ethical, Legal and Environmental (SELE) issues of Nano science and Nanotechnology.

- To strengthen the academic communication skills of the students in English, the University also has a Centre for English Language and Communication Skills.

c. **Courses offered in modular form:** In all the academic programmes, course content is structured in a modular form in the syllabi. Such preparation of course as modules facilitates deeper understanding of the subject among students.

d. **Credit accumulation and transfer facility:** Inter institutional credit transfer is being offered by university for students undertaking projects outside the university. Open courses are offered to students in third semester. The credit for the open course is transferable.

e. **Lateral and vertical mobility within and across programmes, courses and disciplines.**

**Vertical mobility** is an integral part of the curriculum. Schools open up new areas of academic, professional and research options before the students in the form of PG,M.Phil., Ph.D, and Post-Doctoral programmes in the discipline.

**Limited lateral mobility** is available to PG students in the form of elective courses, where the students can select electives suited to their specific talents.

**Interdisciplinary lateral mobility** is offered in many Centres of the University for performing research effectively. Students with professional degrees are allowed to join the Ph.D programmes in select areas.

### 1.2.3 Does the university have an explicit policy and strategy for attracting international students?

Yes. The university has an explicit policy and strategy for attracting international students. The University Centre for International Cooperation (UCIC) is exclusively for co-ordinating the enrolment of international students with the support of the Indian Council of Cultural Relations (ICCR). International students are being admitted to all programmes subject to Government and University rules. Some of the Schools/Centres have MoUs with overseas Universities and institutions for joint programmes and collaborative research.

The university has come up with a new 'regulation for admission of international students to various University departments and Colleges' with effect from 2016 to ease the admission process and to make international admissions hassle free. The main feature of this new regulation is the constitution of an International Students Admission Committee (ISAC) to make international admissions a single window process. All the academic programmes are open to international students and the University has reserved 20% additional seats in Schools/Centres of the University and 10% additional seats in Colleges.

**1.2.4    Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the impediments.**

Yes. International students are being admitted to all programmes subject to Government and University rules. Some of the Schools/Centres have MoUs with overseas universities and institutions for joint programmes and collaborative research. The International and Inter University Centre for Nanoscience and Nanotechnology could attract students from countries across the globe for project work leading to bachelors, masters and PhD programmes. The MA (International Relations) programme offered by the University could attract international students from countries like France, USA, Japan, China Vietnam, Ghana, Kazakhstan, Namibia, etc.

The curriculum of academic programmes offered by the Schools maintains global standards and is designed keeping in mind the international requirements. For instance, the Master of Tourism and Travel Management (MTTM) programme of School of Tourism Studies is designed to meet international needs and it offers courses in foreign languages like French and German, Computerized Reservation Systems, International Fare Calculation and Ticketing, Logistics and Cargo Management, Airport Management, Foreign Exchange Management etc. which is intended to equip students with the requirements of a multicultural global workplace.

University has taken up measures to increase the enrolment of international students providing better access and accommodation facilities. The present major constraint is the limited accommodation facilities available for International Students.

**1.2.5    Does the university facilitate dual degree and twinning programmes? If yes, give details.**

Yes. The university facilitates twinning programme in some of its Schools/Centres. For instance, the M.Tech programme of School of Chemical Sciences offers twinning programme in its last two semesters with universities in USA, France, Germany, Japan and China. The M.S and Integrated M Sc-Ph.D programme offered by International Inter University Centre for Nanoscience and Nanotechnology ensure twinning in its last two semesters with universities and institutes abroad.

At present the university statutes do not give provision for dual degree programmes.

**1.2.6    Does the university offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?**

Yes. The university offers self-financing programmes through its constituent colleges which are specially designed to meet the requirements of the engineering, pedagogy and medical sectors. These constituent colleges follow

separate admission norms, fee structure and appointment practices as stipulated by the respective national councils and government of Kerala.

| Sl. No. | Department/ Schools/ Colleges | Course/ Programmes | Subject |
|---|---|---|---|
| 1 | University College of Engineering | UG | B.Tech (Computer Science & Engineering) |
| | | | B.Tech (Electronics & Communication Engineering) |
| | | | B.Tech (Electrical & Electronics Engineering) |
| | | | B.Tech (Information Technology) |
| | | | B.Tech (Polymer Engineering) |
| | | PG | M.Tech (Applied Electronics) |
| | | Ph.D | Electronics |
| 2 | School of Technology and Applied Sciences | UG | B.Tech. Polymer Engineering |
| | | | B Sc. Computer Science |
| | | | B Sc. Electronics |
| | | | B Sc. Cyber Forensic |
| | | PG | MCA |
| | | | M Sc. Applied Electronics |
| | | | M Sc. Computer Science |
| | | | M Sc. Space Science and Technology |
| | | Ph.D | Electronics |
| | | | Physics |
| | | | Material Science |
| | | | Polymer Technology |
| 3 | School of Applied Life Sciences | PG | M Sc. Fishery Biology & Aquaculture |
| | | M.Phil | Fishery Biology & Aquaculture |
| 4 | School of Medical Education | UG | B Sc. Nursing |
| | | | B Sc. Medical Laboratory Technology |
| | | | Bachelor of Physiotherapy |
| | | | BSc Medical Radiological Technology |
| | | | B Pharm |
| | | | B Sc. Medical Microbiology |
| | | PG | M Pharm (A) Pharmaceutics |
| | | | M Pharm (B) Pharmacology |
| | | | Master of Hospital Administration |
| | | | Master of Public Health |
| | | | Master of Physiotherapy |

| | | | Master of Medical Documentation |
|---|---|---|---|
| | | | M Sc. Medical Microbiology |
| | | | M Sc. Medical Biochemistry |
| | | | M Sc. Medical Anatomy |
| | | | Master of Biomedical Instrumentation |
| | | Ph.D | Pharmacy |
| 5 | University College of Teacher Education | UG | B Ed |
| 6 | School of Communication & Journalism | PG | Master of Arts in Journalism and Mass Communication (MAJMC) |
| 7 | Department of Library & Information Science | UG | B L I Sc. |
| | | PG | M L I Sc. |
| | | | Organic Farming |
| | | | Counselling |
| | | | Management of Learning Disabilities |
| | | Diploma | Yogic Science |
| | | | Organic Farming |

School of Medical Education offers ten P.G. programmes and six UG programmes to meet the increasing demands of the health care sector and is the first of its kind in the state of Kerala. School of Technology and Applied Sciences offers job oriented Science and Technology programmes from UG to Ph.D level. University College of Engineering offers B.Tech. andM.Tech. programmes in the self-financing stream. Admission policies and teacher qualification in self-financing departments are at par with that of regular programmes while fee structure and pay scales differ.

**1.2.7** **Does the university provide the flexibility of bringing together the conventional face-to-face mode and the distance mode of education and allow students to choose and combine the courses they are interested in? If 'yes,' give operational details.**

Yes. The Off-campus programmes offered by the university involve conventional face-to-face mode and the distance mode of education. However, the university has temporarily dispensed with the Off-campus programmes since last year due to UGC directive.

**1.2.8    Has the university adopted the Choice Based Credit System (CBCS)? If yes, for how many programmes? What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?**

Yes. CBCS system is in place in the Schools of the university (CSS is the acronym adopted).The MGU-CSS is applicable to all academic programmes of the statutory Departments/Schools/Centres of the University with flexibility to introduce conventional and new generation programmes such as integrated graduate-postgraduate and postgraduate-research programmes. In all the programmes, there have always been core courses, elective courses and options for open courses for the students to choose from. This has been made possible as the faculty members are ready to offer specialised elective and open courses on diverse subjects. The CSS regulations have been revised from time to time in accordance with the current academic needs.

This system has been in force in the affiliated Arts and Science Colleges at the U.G. level from 2009 and P.G. level from 2012 onwards.

**1.2.9    What percentage of programmes offered by the university follow:**

- **Annual system**
- **Semester system**
- **Trimester system**

All programmes offered by the Schools follow the semester system while professional programmes offered by School of Medical Education follow the annual system as per the norms of the regulatory bodies.

**1.2.10  How does the university promote inter-disciplinary programmes? Name a few programmes and comment on their outcome.**

- The curricula for all the programmes in the university schools/centres are designed in the inter-disciplinary mode. In addition to the interdisciplinary content of the regular programmes, open courses offer opportunity for students to undergo multidisciplinary courses in various sister Schools. This has helped students to explore new areas of study and perform inter-disciplinary research.

  ✓ School of Behavioral Sciences offers interdisciplinary programmes in the disciplines of Psychology, Special Education, (mental retardation, visual impairment, hearing impairment and learning disability) Clinical Psychology, Research Methodology and Statistics, Medicine and Nursing.

  ✓ School of Biosciences is an interdisciplinary department of diverse sub-disciplines of biosciences.

- ✓ School of Chemical Sciences offers interdisciplinary programmes in various areas of Chemical Sciences where students specialise in Organic, Inorganic, Physical and Polymer Chemistry.

- ✓ School of Environmental Sciences offers interdisciplinary Post graduate programmes. A Post graduate diploma in Remote Sensing and GIS is offered in collaboration with ISRO. This course is offered by the School for students from all disciplines.

- ✓ The School of Indian Legal Thought offers a 5 year interdisciplinary BBA LL.B programme with thrust on various specializations and the syllabi cover both Management and Law. As the students are in a position to pursue higher studies in Law as well as Management, the programme has turned out to be successful.

- ✓ School of International Relations and Politics offers interdisciplinary programmes in MA Politics and International Relations, MA Politics and Human Rights, MA Politics (Public Policy and Governance), MPhil Politics and International Relations, Ph.D International Relations, Ph.D International Relations (Economics).

- ✓ School of Pure & Applied Physics offers interdisciplinary programmes in Nanoscience and Nanotechnology and Astronomy & Astrophysics.

- ✓ All the programmes offered by the School of Tourism Studies are inter-disciplinary in nature as knowledge emerging across different disciplines is used in interpreting the tourism phenomena in different geographical, social, cultural, economic and managerial settings.

- ✓ School of Letters offers MA programmes in English and Malayalam, which are essentially interdisciplinary in nature. The MPhil programmes in Malayalam, English and Theatre Arts too identify areas of common concern for the various disciplines. Moreover researches in areas of music, fine arts and Theatre arts too employ an essentially interdisciplinary methodology.

- ✓ The International and Inter University Centre for Nanoscience and Technology offers interdisciplinary programmes at Masters and Ph.D levels consisting of courses relating to various areas of Nanoscience and Nanotechnology cutting across various disciplines like Physics, Chemistry, Biology, Nano-biotechnology, Polymer Science, Material Science etc.

- ✓ The Advanced Centre of Environmental Studies and Sustainable Development (ACESSD) involves in interdisciplinary scientific

research including Chemistry, Environmental Science, Forestry, Human Ecology, Social Sciences and Life Sciences.

* The inter disciplinary initiatives of the university were strengthened in recent times by the establishment of one School (School of Tourism Studies), one International Inter University Centre (International and Inter University Centre for Nanoscience and Technology), seven inter University Centres and ten inter School Centres which facilitate teaching and innovative research. These institutions are examples of convergence of interdisciplinary knowledge and research. Advanced Centre for Environmental Studies and Sustainable Development, Inter University Centre for Biomedical Research, Inter University Centre for Disability Studies, Inter University Centre for Social Sciences Research and Extension etc. are envisaged to consolidate the strengths in various specialised areas of academic interest.

The important outcome and achievements of interdisciplinary research are listed below.

i. Interdisciplinary research projects sanctioned by various national agencies and institutions including the UGC, FIST, DRS, ISRO, COSIT, CSIR, DAAD, DIT, DRDO, KSCSTE, ICMR, BARC, MOEF, ICCR, ICSSR, ICHR, KSHEC, IED, IIFT etc.

ii. Academic collaboration with research institutions of international reputation such as the Max Planck Institute, Germany, Brown University, USA, University of Strasbourg, University of Nancy, University of Paris XII, University of South Brittany   University of Nantes of  France, California Institute of Technology, USA, University of Toronto, Canada, Catholic University Leuven, Belgium, Jinan National University, China, Heidelberg University, Germany, and the Institute of Political Studies, Rennes, France, University of Wisconsin-Parkside, Duke University, Plymouth State University of USA, Technical University of Denmark and Ben-Gurion University, Israel.

iii. Students and faculty members are able to undertake major challenges on problems of interdisciplinary nature. This enables the University for the effective utilization of interdisciplinary resources.

iv. Identification of research areas are of innovative nature.

## 1.3    Curriculum Enrichment

**1.3.1    How often is the curriculum of the university reviewed and upgraded for making it socially relevant and/or job oriented/ knowledge intensive and meeting the emerging needs of students and other stakeholders?**

The Credit and Semester System (CSS) followed by the University gives academic autonomy to Schools. For all the programmes, revision of contents of individual courses is being done once in two years on an average. The Board of Studies of the Schools review and update the curriculum periodically. Regular assessment of the contents of individual courses is done by the Faculty Council. Workshops are conducted before major curriculum revisions and due weightage is given to feedback collected from various stakeholders.

**1.3.2 During the last four years, how many new programmes at UG and PG levels were introduced? Give details.**

- **Inter-disciplinary:**

    **UG: Two**

1. Double Degree BBA.LLB (Hons.) - School of Indian Legal Thought (2011).
2. BSc Cyber Forensic - School of Technology and Applied Sciences.

**PG: Two**

1. M.Phil in Disability studies – School of Behavioural Sciences (offered through Inter University Centre for Disability Studies) in the year 2011
2. M.Sc Space Science and Technology - School of Technology and Applied Sciences

- **Programmes in emerging areas**

| Academic Year | Name of the Programme | Name of the School/Centre |
|---|---|---|
| 2010-11 | i)   Master of Tourism and Travel Management (MTTM)<br>ii)  MS Nanoscience and Nanotechnology<br>iii) MPhil Nanoscience and Nanotechnology | School of Tourism Studies<br><br>International & Inter University Centre for Nanoscience and Nanotechnology |
| 2011-12 | M. A Economics | KN. Raj Centre for Planning and Centre-State Relations |
| 2012-13 | M.Tech in Computer Science with specialization in Communication and Network Technology | School of Computer Sciences |
| 2012-13 | LLM in three branches Viz. Law of Human Rights, Criminal Law & Administrative law. | School of Indian Legal Thought |

| 2012-13 | M.Tech in Polymer Science and Technology | School of Chemical Sciences |
|---------|------------------------------------------|------------------------------|
| 2012-13 | M.P.Ed | School of Physical Education |
| 2013-14 | i)  Integrated M.Sc, Ph.D<br><br>ii)  M.Sc Programme in Plant Science and Technology | International and Inter University Centre for Nanoscience& Nanotechnology.<br>National Institute of Plant Science and Technology (NIPST) |
| 2015-16 | i)  M.Phil in Computer Science<br>ii)  Post Graduate Diploma in Indian Sign Language | School of Computer Sciences<br>School of Behavioural Sciences |
| 2015-16 | Ph.D | School of Tourism Studies |
| 2016-17 | LLM-one year in three branches- Criminal Law, Law of Crimes, and Environmental law | School of Indian Legal Thought |

## New Schools/ Centres in emerging areas

### Schools

| Sl.No. | Name of the School | Year of establishment |
|--------|--------------------|-----------------------|
| 1 | School of Tourism Studies | 2010 |

### International Inter University Centre

| 1 | International & Inter University Centre for Nanoscience and Nanotechnology | 2009(Course started in 2010) |
|---|---------------------------------------------------------------------------|-------------------------------|

### Inter University Centres

| Sl.No. | Name of Centre | Year of establishment |
|--------|----------------|-----------------------|
| 1 | Inter University Centre for Disability Studies(IUCDS ) | 2010 |
| 2 | Inter University Centre for Social Science Research and Extension (IUCSSRE) | 2010 |
| 3 | Inter University Centre for Biomedical Research and Super Specialty Hospital(IUCBR & SSH ) | 2010 |
| 4 | Inter University Instrumentation Centre (IUIC) | 2011 |
| 5 | Inter University Centre for Studies in Science of Music(IUCSSM) | 2012 |
| 6 | Inter University Centre for Organic Farming and Sustainable Agriculture (IUCOFSA) | 2016 |

**Inter School Centres**

| Sl.No. | Name of the Centre | Year of establishment |
|--------|--------------------|-----------------------|
| 1 | Centre for High Performance Computing (CHPC) | 2010 |
| 2 | University Centre for International Co-operation (UCIC) | 2011 |
| 3 | Institute of Contemporary Chinese studies (ICCS) | 2011 |
| 4 | KN Raj Study Centre for Planning and Centre-State Financial Relations | 2011 |
| 5 | Advanced Molecular Materials Research Centre (AMMRC) | 2012 |
| 6 | National Institute of Plant Science Technology (NIPST) | 2012 |
| 7 | Institute of Research in Learning Disability (IRLD) | 2014 |
| 8 | Centre for Yoga and Naturopathy (CYN) | 2015 |

**Other Centres**

| Sl.No. | Name of the Centre | Year of establishment |
|--------|--------------------|-----------------------|
| 1 | Business Innovation and Incubation Centre (BIIC) | 2016 (Sanctioned by Govt. on 28.03.2016) |

### 1.3.3 What are the strategies adopted for the revision of the existing programmes? What percentage of courses underwent a syllabus revision?

Feedbacks from the various stakeholders are considered in the revision of the existing programmes. Periodical revision of all programmes is done regularly to meet the demands of the academia and industry as detailed in 1.1.2 and 1.1.3.

The proposals for revising and up-dating the syllabi and introduction of new programmes are discussed in the Faculty Council and taken up by the Board of Studies of the School. Syllabus revision workshops are conducted before major revisions. The BOS assesses the requirements of the programme/course based on:

- Feedback from academia/industry/alumni/students regarding relevance and usefulness of the programme/course.

- Recent advancements in the subject area.

- Instructions of regulatory bodies and syllabi of national level competitive examinations.

The syllabi framed by the BOS are then scrutinized and approved by the Academic Council and implemented. During the assessment period, syllabi of all the programmes were revised or updated.

**1.3.4    What are the value-added courses offered by the university and how does the university ensure that all students have access to them?**

The University conducts various short term courses on socially relevant subjects.

➢ Department of Lifelong Learning and Extension offers

▪ Certificate Course in Counselling

▪ Certificate Course in Management of Learning Disabilities

▪ Certificate / Diploma Course in Yogic Science

▪ Certificate / Diploma Course in Organic Farming

➢ School of Physical Education and Sports Sciences offers

▪ Certificate Programmes in Leadership Training

▪ Fitness Management

▪ Officiating role in different Sports and Games.

➢ Inter University Centre for Organic Farming and Sustainable Agriculture conducts

▪ Organic Farming Training Programmes

All the above programmes are offered during holidays and after regular working hours to encourage participation of regular students.

The University had initiated steps to offer short term programmes in foreign languages, which is meant to help students to meet the linguistic and communication requirements of the global workplace.

**1.3.5    Has the university introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?**

Higher order skill development is given major emphasis in curriculum development in all the Schools/Centres especially in Schools which focus on technology oriented programmes.  For instance, School of Tourism Studies caters to the manpower requirements of service industries like aviation, hospitality and allied sectors.

Additional Skill Acquisition Programme (ASAP), a joint initiative of Departments of Higher Education and General Education, Government of Kerala which is set up as part of the State Skill Development Project to

enhance the employability of students is promoted by the University through its colleges.

- **School of Behavioural Sciences**

The School organized workshops on Psychological Testing, Cognitive Behaviour Therapy, Data analysis using SPSS software, Indian Sign language and Braille script during the period. This helped in enhancing the competency of students in various areas.

- **School of Environmental Sciences**

A certificate course in Remote Sensing and GIS is offered by the School in collaboration with ISRO as a part of its additional skill development initiative. Remote Sensing and GIS are major tools in many of the technology and environment related explorations.

- **School of International Relations and Politics**

School of International Relations and Politics has facilitated research in Intellectual Property Rights (IPR) and thereby a number of scholars have obtained Ph.Ds in these areas and many others are working in IPR.

- **School of Management and Business Studies**

'Finishing School Programme' offered by the School is in tune with the requirements outlined by National Skill Development Corporation (NSDC) at national level and Additional Skill Acquisition Programme designed by Government of Kerala.

- **School of Indian Legal Thought**

SILT conducts Moot Court and Mock Trial programmes in every semester. The School also organizes a National Level Moot Court competition every year.

- **School of Tourism Studies**

Higher order skill development is the outcome of the programmes offered by the School which ensures employability in the global Tourism and Hospitality Industry and is framed in line with the general guidelines formulated by NCHMCT and IITTM.

- **School of Pedagogical Sciences**

The PG Curriculum has a Course on ICT and Skill Development in the second Semester, which is outlined in the NCTE Guidelines. The Ph.D. Coursework Programme is designed along the framework prescribed by UGC and has components of higher order skill development in research methodology.

## 1.4 Feedback System

### 1.4.1 Does the university have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Yes. The university has a formal mechanism to collect feedback on curriculum from students. The general format of the feedback forms is provided by the IQAC of the university. Students' feedback on curriculum is regularly collected by the Schools. The Faculty Councils of the Schools and Boards of Studies take into consideration the specific inputs received in the form of feedback while revising the curricula. The feedback obtained is effectively used by the faculty members for self-appraisal and also for improving the teaching-learning process. Feedback on entire curriculum is collected from the outgoing batch of students. Some Schools have introduced an online system for collecting feedback.

### 1.4.2 Does the university elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods such as conducting webinars, workshops, online discussions, etc. and its impact.

Yes. The faculty members of the Schools and Centres maintain close association with pioneers in the subject area from academia and industry. They regularly attend national and international conferences/workshops/seminars and meetings of academic bodies of other universities/research bodies. The faculty members also interact with experts in the field who visit the department as external examiners/resource persons for various conferences, workshops and seminars. Some of the Schools utilized suggestions from visiting Erudite Professors/ Professors under Obama-Singh 21$^{st}$ Century Knowledge Initiative (OSI) programme. Schools and Centres also participate in webinars/e-seminars/e-conferences through the video conferencing facility. Feedbacks are also sought from experts including the alumni abroad through e-mail.

The experience obtained through these academic interactions is used in curriculum development to keep pace with recent advancements in the field of study.

The Faculty of university schools/centres have regular interface with their counterparts in international research institutions such as the Max Planck Institute, Germany, Brown University, USA, University of Nantes, University of Strasbourg, University of Nancy, University of Paris XII, University of South Brittany of France, California Institute of Technology, USA, University of Toronto, Canada, Catholic University Leuven, Belgium, Heidelberg University, Germany, Institute of Political Studies, Rennes, France, Jinan National University, China, University of Wisconsin-Parkside, Duke University, Plymouth State University of USA, Technical University of Denmark and Ben-Gurion University, Israel. Discussions are carried out through e-mail and Skype vis- a-vis the curriculum revision.

**1.4.3** **Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.**
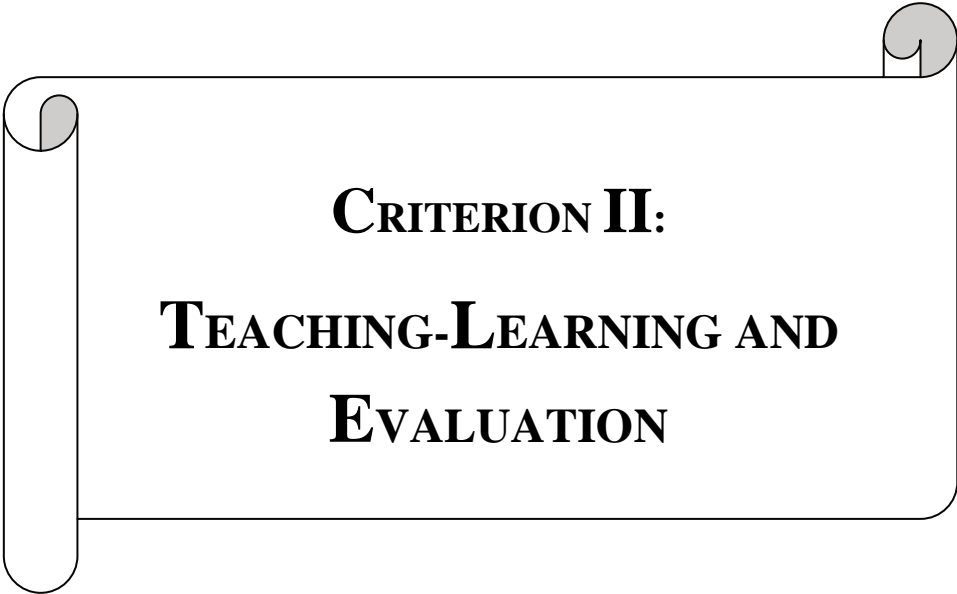
Members of the faculty from recognized affiliated institutions have adequate representation in all the academic bodies of the University. The feedbacks from affiliated institutions are formally presented to the University through these bodies. Regular meetings of the Principals of the affiliated institutions convened by the University also act as a forum for the presentation of feedback on curriculum and other matters from the Colleges. The office of the Director, College Development Council in the university also interacts regularly with the affiliated colleges and receives feedback. Also, prior to major syllabus revisions, workshops are conducted ensuring participation of faculty members from affiliated institutions offering the programme.

**1.4.4** **What are the quality sustenance and quality enhancement measures undertaken by the university in ensuring the effective development of the curricula?**

The quality sustenance and quality enhancement measures undertaken by the University in ensuring the effective development of curricula include:

- Academic interactions with pioneers in the subject area from academia and industry in curriculum development.

- The Schools update curriculum in line with contemporary developments in their respective subjects.

- Utilization of feedback on curriculum elicited from national and international faculty and various stakeholders.

- Due weightage is given to recent advances in various areas, instructions of regulatory bodies and syllabi of national level competitive examinations like UGC-CSIR, NET.

- Incorporating individual/group student projects as part of curriculum to ensure effective industry linkage in the learning process.

- The university has made syllabus revision workshops involving peers along with faculty members in the subject area to keep the programme updated in all respects.

- Introduction of course work and other stipulations as part of PhD regulations to ensure that the programme is as per the national norms.

- Research collaborations and sharing of research students/ exchange programmes with various leading research Institutions.

The IQAC of the university is instrumental in ensuring the quality of the services provided to its stakeholders.

# CRITERION II:

# TEACHING-LEARNING AND EVALUATION

# CRITERION II: TEACHING-LEARNING AND EVALUATION

## 2.1 Student Enrolment and Profile

### 2.1.1 How does the University ensure publicity and transparency in the admission process?

The University follows a systematic admission process which is transparent. All efforts are made to ensure that the notification reaches all the prospective applicants well in time. Prior to the admission process, an assessment of previous year's admission formalities is made by the Admission Monitoring Committee chaired by the Vice-Chancellor. Various issues like reservation of seats, guidelines of the regulatory bodies like UGC, AICTE, etc are discussed and guidelines for new prospectus are prepared. Admission to various programmes offered by the University is through Centralised Alottment Process (CAP) since 2010 where students can apply online for multiple programmes through a single application. Admission to University departments is through a national level multicity entrance test. Reservation policy of the state goverment is strictly followed in the admission process.

**Publicity**: University gives wide publicity to its admission process through national newspapers in Malayalam and English and through University Website (www.mgu.ac.in). The Public Relation Office of the University regularly gives caption news about the admission in newspapers under "University News Column".

The website provides detailed information on Schools, academic programmes, research programmes, specializations offered, eligibility criteria, number of seats available, reservation norms, fees structure, co-curricular activities, faculty profile and admission procedures.

The University charges nominal fees as application fee and concession is allowed for SC/ST candidates as per rules and regulations.

Separate admission regulations are made for international students and these are made available to foreign embassies through ICCR. Twenty percent of the total sanctioned strength is given additionally for international students. Applications from international students are processed separately by the University Centre for International Co-operation (UCIC).

**Transparency:** The Institution ensures transparency in its admission process through the following mechanisms:

· The admission schedule and criteria for selection are widely publicised through the university website and the print media.

• A separate admission processing cell called Centralised Alottment Process (CAP) provides a single window system for admission process.

• It is a completely transparent paperless, student-friendly online admission system where students can make payments online, choose and

correct their options, receive SMS alerts at every stage and  login to view the progress in admissions.

**2.1.2 Explain in detail the process of admission put in place by the university. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the university (please specify).**

**Admission Process:** Admission to majority of PG programmes of the Schools/Centers of the University is through a national level Common Admission Test (MGU-CAT) conducted every year  during April-May. Fifty percent of the seats are allotted to reserved communities.

**Receipt of Application:** Applications are received online through the University website with provision for paying the fees on-line where an application number will be automatically allotted. The student needs to submit only a single application for seeking admission to multiple programmes.

**Conducting Common Admission Test:** The test is conducted at various centers   depending on the number of applicants under direct supervision of University officials.

**Valuation & Publication of the Rank List:** The answer sheets are evaluated within one week   and the duly approved rank lists are uploaded on the University website. Category-wise merit lists are also prepared, prior to the commencement of counselling.

**Counselling:** Based on the rank list, counselling is organized by the CAP cell in which the candidate has to personally attend.  The list of selected candidates and vacancy positions are displayed during admissions. The admission process is completed in three rounds.

**Reservations of Seats :** The reservation policy of the Government of Kerala is strictly adhered to by the university, by renotifying vacant seats thrice in news papers. Spot admissions are given to eligible candidates.

For MBA programme, the admission is based on the score in the aptitude test conducted by various national agencies like AICTE (CMAT), Indian Institute of Management (CAT) and state agency like Admission Supervisory Committee (KMAT), and group discussion and interview. The ratio of weightage is 60:20:20 for test, group discussion and interview.

Admission to M.Tech. is based on GATE score / entrance test.

Admissions for M.Phil. and Ph.D.  programmes are based on separate test and interview. The following category of students are exempted from Ph.D. entrance test.

- M.Phil. and M.Tech. degree holders.
- Candidates who have passed the UGC-NET/ GATE/ICAR/ KSCSTE/CSIR/NBHM / ICSSR etc.

- Teachers of universities and colleges approved by the universities in Kerala and scientists in national level research laboratories, who have put in five years of continuous service, and foreign nationals who have been sponsored under a scholarship scheme by the Government of India for undergoing Ph.D. programme in India.

**International Students**: These students either come through Govt. of India Scholarship schemes of the ICCR or in general category as direct candidates. They are exempted from appearing in the entrance test. Admission is carried out by the UCIC through its International Students Admission Committee (ISAC) to 20% seats, additionally created for international students.

### 2.1.3 Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.

UG & PG admissions for merit quota in affiliated Colleges are done through the Centralised Allotment Process (CAP). Mahatma Gandhi University has the distinction of pioneering centralised admission in Kerala to facilitate admission to affiliated colleges and centres. Despite the existence of a broad spectrum of programmes under its anvil, it was learnt from prior experience that students often were not properly informed about these programmes with the result that they could not exercise a fair choice of programmes suited to their aptitude. Also, seats in many programmes which were instituted with huge capital investment often remained unfilled. It was with a view to eliminating such problems and streamlining the post graduation admission procedure that the centralised admission process (CAP) was conceptualized by the Mahatma Gandhi University and was later implemented from the academic year 2010.

The biggest advantage for students through CAP is that an applicant needs to submit only a single application for a multitude of programmes offered in different colleges, thereby minimizing the cost, time and effort. Moreover, it ensures that the seats earmarked for SC/ST/physically challenged candidates are exclusively allotted to them. Unfilled seats in these categories, if any, can also be allotted to other eligible categories as per the existing rules, thereby ensuring social justice.

Since the admission process is conducted online, a student can verify the admission procedure at every stage and thus a great amount of transparency is achieved which would not have been possible otherwise. In the case of colleges, a great amount of time needs to be expended not only by the administrative staff but also by the teachers for conducting and completing the admission procedure as per the conventional system. Introduction of CAP relieved the administrative staff of their admission related burden and provided teachers with more time for their academic activities. Moreover without any media publicity the colleges get opportunity to present all their merit/reservation seats for allotment, thereby saving valuable money in media notification. Since the admitted students under CAP remit their fees due, to the university through bank, the administrative work in the colleges with regard to fee remittance to the university has been

considerably reduced. The admission to autonomous colleges is monitored by the university as per the special regulations made for autonomous colleges. The entire admission process to various programmes is monitored by an Admission Monitoring Committee comprising of Vice-Chancellor, Pro-Vice Chancellor, Syndicate Members and Registrar.

**2.1.4 Does the University have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?**

Yes. The Admission Monitoring Committee reviews the admission process and student profile annually. The review has helped to streamline the admission process and ensure that the exercise is transparent.This has helped the university to ensure timely admission, thereby attracting meritorious students.

**2.1.5 What are the strategies adopted to increase/improve access for students belonging to the following categories:**

i. **SC/ST**
ii. **OBC**
iii. **Women**
iv. **Persons with varied disabilities**
v. **Economically weaker sections**
vi. **Outstanding achievers in sports and other extracurricular activities**

*i. SC/ST*

In the admission process the University offers mandatory reservation of seats to special categories as shown below:

| Category | Reserved seats (%) |
|---|---|
| Scheduled Castes | 15% |
| Scheduled Tribes | 7.5% |
| Total | 22.5% |

*ii. OBC*

| | |
|---|---|
| Ezhava/Thiyya/Billava | 8% |
| Muslim | 7% |
| Other Backward  Hindu | 3% |
| SIUC/Latin Catholic | 1% |
| Other Backward Christian | 1% |

For the unfilled seats under the SC/ST category, renotification is done upto a maximum of three times to ensure filling up of vacant seats.

*(iii) Women*

The admission statistics for the last 5 years reveals that women constitute an average of 62% for PG and 65% for research programmes. The increase in women enrolment is a positive social indicator reflecting favourably on women empowerment in the State.

*(iv) Persons with varied disabilities*

In addition to 3% reservation in admission, the following facilities are provided to this category of students to increase their access to higher education.

- Visually-impaired students are allowed scribes and extra time for writing the examinations.

- The unfilled seats under the Persons with Disability (PD) category is converted to seats for children with special needs.

- The University Library has Braille Centre with DAISY Software to aid the learning requirements of visually challenged students.

- Ramps and wheel chairs are provided in the campus.

- The University has initiated steps to ensure barrier free transportation in the campus by procuring an eco-friendly battery operated vehicle with wheel chair access.

- Physiotherapy unit

- Audiology and speech therapy unit

- Remedial coaching for students with learning disabilities

- Psychological counselling services

- ABILITY - A funded project initiated by the School of Social Sciences to make buildings barrier free for persons with varied disabilities.

**(v) Economically weaker sections**

The University has reserved 10% seats for students who belong to Economically Backward among Forward Communities (EBFC). The 20% seats reserved for OBC- Socially and Economically Backward Community-SEBC) is also on the basis of their economic status. The EBFC and SEBC categories are extensively supported with scholarship schemes from various state and central government bodies. Documentation support for availing educational loans from banks is another major facet.

*(vi) Outstanding achievers in sports and other extracurricular activities*

Sports/NSS/NCC/Cultural Quota

➢ 2 seats in each programme (interchangeable) are reserved for candidates with outstanding records in sports and games.

➢ 1 seat for each degree programme (interchangeable) is reserved for students who excel in Youth Festival recognized by Director of Public Instruction.

➢ Bonus marks are provided to applicants with NCC/NSS certificates for admission to all programmes.

• The university has instituted sports scholarship for 150 meritorious sports persons annually to recognise the achievement of the sportsmen/ women of the university. The university has also instituted sports merit cash award to the winners of All India Inter University Championships annually. The sports merit cash award was instituted by the School of Physical Education and Sports Sciences to encourage the university teams to perform well at Inter University Competitions.

**2.1.6 Number of students admitted for PG programmes in University Schools in the last four academic years**

| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General | 67 | 124 | 81 | 124 | 83 | 125 | 82 | 128 | 81 | 130 | 87 | 135 |
| OBC | 23 | 42 | 28 | 41 | 29 | 43 | 29 | 44 | 27 | 44 | 26 | 45 |
| SC | 18 | 32 | 21 | 32 | 22 | 32 | 22 | 28 | 25 | 26 | 23 | 36 |
| ST | 9 | 16 | 11 | 15 | 11 | 15 | 10 | 16 | 12 | 25 | 12 | 16 |
| Total | 117 | 214 | 141 | 212 | 145 | 215 | 143 | 216 | 145 | 225 | 148 | 232 |
| Total | 331 | | 353 | | 360 | | 359 | | 370 | | 380 | |

**2.1.7 Has the university conducted any analysis of demand ratio for the various programmes of the university schools and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease.**

| Sl. No. | Departments | No. of Seats | Demand Ratio | | | |
|---|---|---|---|---|---|---|
| | | | 2013 | 2014 | 2015 | 2016 |
| 1 | School of Behavioural Sciences | 22 | 2.68 | 4.09 | 6.64 | 9.09 |
| 2 | School of Bio Sciences | 35 | 22.34 | 25.06 | 25.63 | 24.68 |
| 3 | School of Chemical Sciences | 42 | 17.07 | 22.05 | 24.93 | 33.03 |
| 4 | School of Computer Sciences | 25 | 6.92 | 16.00 | 10.12 | 8.28 |
| 5 | School of Environmental Sciences | 20 | 23.70 | 35.90 | 37.60 | 16.8 |
| 6 | School of Gandhian Thought and Development Studies | 24 | 1.71 | 2.42 | 1.63 | 1.41 |
| 7 | School of Indian Legal Thought | 20 | 1.25 | 1.15 | 0.65 | 1.30 |
| 8 | School of International Relations and Politics | 25 | 7.07 | 11.80 | 11.87 | 4.64 |
| 9 | School of Letters | 20 | 25.6 | 25.4 | 36.15 | 39.1 |
| 10 | School of Management and Business Studies | 60 | 6.65 | 7.82 | 2.00 | 2.01 |
| 11 | School of Pedagogical Sciences | 50 | 8.60 | 1.04 | 1.20 | 0.82 |
| 12 | School of Pure and Applied Physics | 20 | 40.10 | 49.70 | 50.90 | 50.95 |
| 13 | School of Social Sciences | 15 | 6.67 | 9.93 | 8.73 | 5.53 |
| 14 | School of Tourism Studies | 20 | 5.20 | 6.95 | 6.30 | 5.15 |
| 15 | Dr. K.N. Raj Center for Planning and Center-State Financial Relations | 12 | 13.58 | 17.50 | 15.08 | 11 |
| 16 | International and Inter-university Center for Nanoscience and Nanotechnology | 12 | 2.67 | 2.33 | 2.67 | - |

**PG programmes (MA, M.Sc., M Tech, MBA, MTTM)**

**Year-wise demand ratio in University Schools/Centres**

| Year | No. of applications received | No. of students | Demand Ratio |
|---|---|---|---|
| 2010-11 | 4194 | 380 | 11:1 |
| 2011-12 | 4346 | 380 | 11:1 |
| 2012-13 | 4565 | 380 | 12:1 |
| 2013-14 | 5448 | 380 | 14:1 |
| 2014-15 | 5194 | 380 | 14:1 |
| 2015-16 | 5218 | 380 | 14:1 |

**Year-wise applicants for M.Phil, M.Tech and Ph.D Programmmes**

| Year | M. Phil | | | M. Tech. | | | Ph. D | | |
|---|---|---|---|---|---|---|---|---|---|
| | Applied | Admitted | Demand ratio | Applied | Admitted | Demand ratio | Applied | Admitted | Demand ratio |
| 2010-11 | 585 | 145 | 4.03 | - | - | - | 330 | 26 | 12.69 |
| 2011-12 | 456 | 143 | 3.18 | - | - | - | 406 | 35 | 11.60 |
| 2012-13 | 523 | 140 | 3.74 | 153 | 28 | 5.5 | 553 | 25 | 22.12 |
| 2013-14 | 542 | 144 | 3.76 | 158 | 28 | 5.6 | 590 | 35 | 16.86 |
| 2014-15 | 565 | 145 | 3.90 | 27 | 17 | 1.6 | 446 | 40 | 11.15 |
| 2015-16 | 583 | 144 | 4.05 | 21 | 15 | 1.4 | 464 | 33 | 14.06 |

**Demand ratio for affiliated colleges***

| Year | PG | | Demand ratio | UG | | Demand ratio |
|---|---|---|---|---|---|---|
| | No. of applicants | No. of seats | | No. of applicants | No. of seats | |
| 2013 | 161273 | 8094 | 20:1 | 575769 | 38638 | 15:1 |
| 2014 | 183028 | 7654 | 24:1 | NA | 40122 | 19:1 |
| 2015 | 124578 | 6042 | 21:1 | 762263 | 42699 | 19:1 |
| 2016 | 109882 | 5805 | 19:1 | 809745 | 32425 | 25:1 |

*Baed on online CAP based allotment*

Demand for conventional UG programmes increased due to the decreased demand for engineering courses.

**2.1.8 Were any programmes discontinued/staggered by the university in the last four years? If yes, please specify the reasons.**

Yes.

i)    Integrated M.Sc-Ph.D Pogramme in Chemistry and Nanoscience have been discontinued due to scarcity of research supervisors at the Ph.D level.

ii)   M.PEd. was discontinued from 2011-15 due to lack of permanent faculty.

iii)  M.Sc Nursing due to decision taken by the regulatory body.

## 2.2    Catering to Student Diversity.

**2.2.1 Does the university organize orientation/induction programme for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.**

Yes. During the first week of the starting of a course, Schools organize orientation programmes for freshers which usually last for 1-3 days. The induction programme familiarizes the students with the following:

- The vision and mission of the institution

- Syllabus, Schemes & CSS system

- Timings, discipline

- Anti-ragging awareness

- Criteria for internal assessment

- Facilities available in the campus

- Co-curricular activities available

- Clubs, forums and other such activities

- Goal setting

- Attitude building

- Career planning

- Time management

- Life skills

- Research scope in the field and further studies option

Special sessions are carried out for International students regarding Visa

issues, police verification, C-form filing and on local cultural practices.

At the end of the orientation programmes, feedbacks are collected from students. These feedbacks are analysed and their views and opinions are considered for the revision of syllabus and introducing new programmes.

A student profile is prepared by the faculty advisors after the orientation programmes. It helps to make an analytical study about their curricular and extracurricular strength, weakness and socio economic background. Also, this is used as a valid document for student progression analysis.

### 2.2.2 Does the University have a mechanism through which the differential requirements of the student population are analyzed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

Yes. Detailed information is provided to students about the courses and the list of specializations provided by each school through the university website. However, their specific doubts are cleared during the counselling session. Based on the counselling, the School admission committee undertakes a study and it helps to identify slow and advanced learners. This helps the faculty to plan their tutorial methods and schedule, to bring out better performance. The faculty advisors offer bridge/remedial programmes to the needy. The services of the newly established Training and Placement Cell are also utilized for this purpose.

### 2.2.3 Does the University offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, School-wise/faculty-wise?

Yes. Based on the feedback and performance in the examinations, faculty members identify the additional course requirement for slow learners and fast learners. Bridge/remedial and add-on courses are offered to slow and fast learners. These programmes are generally conducted outside the office hours or on holidays. The university has utilized the funding from UGC for the conduct of remedial courses for SC/ST and minority students.

**Bridge Course**

Organic Chemistry (IIUCNN)

**Remedial Programmes**

  i.    Research Methodology (all Schools and Centers)

 ii.    Quantitative Methods for Management (SMBS)

iii.    Operations Research (SMBS)

 iv.    Derivatives (SMBS)

  v.    Operations Management (SMBS)

vi.   Financial Accounting (SMBS)

vii.   Organic Chemistry (IIUCNN)

viii.   Java Programming (SCS)

ix.   French Language (STS)

**Add on programmes**

i.   Business Data Analytics (SMBS)

ii.   Financial Data Analytics using EXCEL and Tally (SMBS)

iii.   Research Analysis using SPSS (SMBS)

iv.   Soft Skill Development (all Schools and Centers)

v.   NET Coaching offered by University Employment, Information & Guidance Bureau

vi.   Indian Sign Language (SBS)

vii.   Basic Concepts of Statistical Inference (SBS)

viii.   Evening Course on Learning Disabilities (SBS)

ix.   Short-term Add-on courses on different softwares and scientific and computational tools as part of the  Spoken Tutorial Project(an initiative of NMEICT, MHRD, Govt. of India) (SCS)

x.   C & C++   Programming (SCS)

xi.   Java  Programming (SCS)

xii.   Latex and SciLab (SCS)

xiii.   Mathematica & MATLAB (SCS)

xiv.   MOOC Programmes in Schools/Centres (IIUCNN,SES)

**2.2.4   Has the university conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?**

Yes. The Departmental Faculty Council analyses the academic progress of students from socially and economically disadvantaged sections of the society, and students with disability and makes appropriate recommendations. Slow learners are identified by the faculty advisors from the student profile which helps to make an analytical study about their curricular strength and weakness. Remedial teaching is arranged accordingly.

The School of Tourism Studies has conducted an Access Audit in the university campus using the comprehensive 'Accessibility Audit Checklist' prepared in line with the guidelines issued by the Ministry of Social Justice and Empowerment (MOSJE)  to identify the state of accessibility and barrier

free environment and premises for persons with disability and elderly persons. On the basis of this comprehensive study, the state of barrier free transport and barrier free built environment were analysed and corrective measures were taken. Accordingly, the university has initiated steps to procure an eco-friendly battery operated vehicle with wheel chair access along with preferential parking facilities to ensure barrier free transportation in the campus.

School of Social Sciences conducted a study to make university infrastructure disabled-friendly through a project titled ABILITY. Ramps and other facilities are provided in the Schools and hostels. For the visually impaired, care is taken to arrange examinations in separate class rooms and scribes are permitted for writing their examinations.

As per U.O No. 4308/P&D -1/3/2016/Admn dated 01/08/2016, the University has issued an order formulating a comprehensive policy for addressing disability issues. The main components of the order are as follows:

- To engage the service of a barrier free design expert and architect to audit the disabled-friendliness of all physical segments of the university.

- To ensure disabled-friendly features like ramp (of a gradient not greater than 18-20 degrees), lifts (wide enough for wheel chair, and with Braille control switch panel and audition), special assistive fixtures and fitting (like handrails and grab bars alongside the side walk of steps and staircases), and disabled - friendly washrooms in all future construction projects.

- To allow a grace period of three months for M.Phil and six months for Ph.D. students who are physically challenged in the submission of dissertations.

- To ensure at least one terminal in the computer workstation (of all departments, centres) with special assistive technologies, preferably open source, for physically challenged students.

- To ensure the websites of Mahatma Gandhi University and its statutory teaching departments and the affiliating colleges incorporate features friendly to the visually challenged (including colour contrast, variable font size and audition).

- To create a special fund to handle all income and expenditure relating to addressing disability issues of Mahatma Gandhi University including constituent colleges. Besides central and state funding and UGC special assistance, funds are also received from MP/MLA development plan assistance for constituencies, and rules permitting, from the private sector companies (who may fulfil it as part of corporate social responsibility).

- To highlight the aspect of disabled-friendliness in all notifications for admission and appointment released by the university with the statement "MGU is proactive to the needs of the physically challenged" is inserted.

School of Behavioral Sciences conducts training programmes regularly for students with learning disabilities and also for their parents as well as teachers. School of Behavioural Sciences has conducted several studies during the period on education, training, rehabilitation, quality of life and other aspects of life of the marginalized and disadvantaged sections of the society including differently abled. Some studies conducted are shown below:

a. Achievement motivation and self esteem of PG students of M. G. University (2013).

b. Gender difference and cognitive function among PG students (2013).

c. Learning problems among high school students with mathematical difficulties and the efficacy of remedial teaching module in mathematics (2013).

d. Awareness and attitude of Tribals of Attappadi towards mental retardation (2013).

e. Role of family in the education of tribal students (2013).

f. Personality of young adult women staying in slums (2014).

g. Personality profile in relation to optimistic and pessimistic life orientation among M G U students (2016).

Most of the students admitted to various programmes are from socially and economically disadvantaged sections. University strictly adheres to reservation policies of the government and facilitates various scholarships offered by central and state government agencies. University has instituted research scholarships for those research scholars who are in receipt of no other scholarships. In the statutory schools, university is charging only a nominal fee for the masters and Ph.D. programmes. The academic ambience and the student support mechanism for the disadvantaged sections have helped students to successfully complete the programmes. Most of the students go for higher studies such as M.Phil./M.Tech./Ph.D. in India or abroad.

University is promoting INSPIRE and KSCSTE fellowships for research. Special attention is given to students coming from rural areas to improve their communication skills. Compulsory library hours are included in most of the schools to improve the reading habit and cultivate an aptitude for research among students.

### 2.2.5 How does the university identify and respond to the learning needs of advanced learners?

- The Departmental Council identifies the advanced learners based on student profile prepared at the beginning of the programme.

- The Credit Semester System (CSS) followed in the Schools gives the advanced students an opportunity to choose appropriate elective courses which can satisfy their intellectual needs.

- The Schools offer students a wide range of specializations to choose from according to their aptitude.

- The university has facilitated starting of add-on courses in its colleges with UGC support. The office of the Director, College Development Council has an active role in starting such skill oriented programmes.

- The campus wide network with optical fibre cable gives free internet access and amply structured Wi-Fi connectivity. Advanced learners can use this facility to meet their special academic requirements.

- The university library and school libraries have several advanced books, CD ROMs and journals which satisfy the needs of advanced learners.

- The university extends the facilities for special coaching to attend UGC/CSIR/GATE and other competitive examinations.

- The Erudite Lecture series involving 60 scholars of international repute including 7 Nobel laureates and the Scholar–in-residence programmes organized in the University provided opportunity to advanced learners to interact with the scholars across the globe.

- Students are encouraged to participate in subject oriented competitions including technical fest and present research papers in seminars, workshops organized at national and international levels. Publications in high impact journals are also encouraged.

- The schools motivate the students to apply for various scholarship programmes like INSPIRE, ASPIRE, PURSE, UGC-BSR, Rajiv Gandhi National Fellowship, Moulana Azad Fellowship, Kothari Fellowship, Commonwealth Fellowship etc.

- University has introduced grace mark and attendance relaxation for those who have engaged in start-up projects in approved incubators.

- University has started a Business Innovation and Incubation Center (BIIC) which encourages the advanced learners to nurture their entrepreneurial qualities.

- The inclusive ambience of the university gives advanced learners the opportunity to interact with international students and thereby widen their exposure through a multicultural experience.

- Challenging topics are given for individual and group assignments.

- The students from various Schools/Centres have opportunity to undertake project work in different parts of the country/abroad.

- They are encouraged to involve in the activities of NGOs, publishing firms, training groups, resource outsourcing groups etc.

## 2.3. Teaching-Learning Process

### 2.3.1 How does the university plan and organise the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)?

The Credit and Semester System (CSS) of Mahatma Gandhi University aims at flexibility in curriculum development, objectivity and critical approach in examination patterns, use of continuous evaluation for assessment in all educational programmes in the university campus. The CSS is also meant to provide meaningful common criteria as per the national pattern to transfer credits when students move from one institution to another within or outside the country.

CSS seeks to ensure a uniform pattern of course design, course teaching, evaluation system, academic calendar and examination time-table for all MA., M Sc., MEd., LLM, MTM, MBA., MPEd, M Tech, integrated BSc-MSc, M Phil., integrated M Sc-Ph.D and course-work of the conventional PhD programmes. CSS also ensures that all its autonomous Schools/Centre/ Institutes enjoy academic flexibility in the conduct of diverse academic programmes.

The university has a common academic calendar to plan the processes of teaching-learning of theory, practical, and project/dissertation work as per guidelines of UGC. Each school makes amendments to the common academic calendar in accordance with its specific requirements. The academic calendar reflects all academic activities including the conduct of examinations, schedule for project works, field visits, industry visits, educational tour and co-curricular activities. The academic calender ensures the completion of the semester in the stipulated time frame of ninty working days.

Before the commencement of the semester, the Faculty Council of the department concerned decides the courses that would be offered during a particular semester. This enables the teacher to prepare the teaching plan much ahead of the beginning of each semester. The faculty members prepare the course outlines, reading materials, schedules for each course, theory and practicals. The University follows the stipulations of UGC on teaching hours/credits. Field/industry visits and other related activities are also scheduled in addition to the conduct of internal and external examinations.

The final result in each course other than Ph.D is determined on the basis of continuous assessment and the performance in the end semester examination, which is in the ratio of 50:50 for both theory and practical courses. The scheme of internal evaluation for each of the courses includes seminars, assignments and internal tests in the ratio of 25:25:50. For practicals, the components are seminars, lab skill, records and viva-voce. Evaluation of the post graduate courses for odd semester examinations is done by the faculty

members themselves while double evaluation is followed for even semester examinations by internal and external evaluators.

The IQAC of the university initiate, plan and supervise various activities that are required to increase the quality of the education imparted in the institution. The role of IQAC in maintaining quality standards in teaching, learning and evaluation is crucial and many of its recommendations in this direction have been implemented by the university.

**2.3.2    Does the university provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?**

Yes. The syllabi of UG and PG programmes of colleges are provided in the university website. Students can select their electives according to their choice. Course outlines with schedules and time table are provided to students at the commencement of the academic session.  Based on the feedback obtained from faculty, students and other stakeholders, the review of the course outline and schedule is done by the Faculty Council and appropriate measures are taken.

**2.3.3    Does the university face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.**

No.  Usually the contents of the syllabi for various courses are completed within the stipulated time. However in certain unavoidable circumstances due to unexpected holidays, or during natural calamities which are beyond the control of the university, the actual teaching days may be lost causing  delays. Nevertheless, the teachers engage in additional classes to complete the course on time.

**2.3.4    How is learning made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.**

The University constantly takes efforts to make its learning student-centric. Despite differences in teaching methodology adopted by various schools/centres, depending on the nature of the programmes offered, the teaching learning process in every academic programme is student-centric. The approaches adopted at the university to make learning student-centric include:

➢ Formal/informal interaction between the faculty and the students

➢ Assignments/ seminars/ debates/ brainstorming sessions

➢ Case study, field trips, group projects

- ➢ Tutorials
- ➢ Flipped class room
- ➢ Online interactive learning
- ➢ Interaction of students with external experts/visiting faculty
- ➢ Freedom to select courses/electives within their programmes

**2.3.5 What is the university's policy on inviting experts/people of eminence to deliver lectures and/or organize seminars for students?**

The University strongly believes that the conduct of special lectures, seminars, workshops, invited talks and symposia by involving the external experts help faculty and students to enhance their capacities. Irrespective of the Schools/Centres to which they are affiliated, the students can attend these programmes conducted in the University. This facilitates exchange of ideas and provides exposure to teaching and research in other institutions of eminence.

Some of the major programmes include,

- • Erudite programme: Under the programme, sixty eminent academics, including seven Nobel Laureates delivered lectures.

- • Diplomatic Lecture Series is organized in association with the Ministry of External Affairs, Govt. of India.

- • Industry-Institute interaction is held many a time involving alumni.

- • A Scholar-in-Residence Programme funded by the state Government, in which eminent scholars stay on the campus and interact with students.

- • Memorial lectures are held to commemorate the contributions of distinguished faculty who have served in different Schools.

- • Schools regularly invite prominent scholars from both the academic institutions and industries of repute for delivering lectures. The lists of activities organized by each School are given in the respective School profile.

- • Schools/Centres regularly conduct national and international conferences and workshops in which leading experts are invited to deliver lectures. They also interact with the faculty members and students leading to active collaboration and networking.

**2.3.6 Does the university formally encourage blended learning by using e-learning resources?**

Yes. The University encourages blended teaching and learning through effective use of e-learning with conventional learning resources. Major initiatives taken in this direction are:

- • ICT enabled teaching-learning with free internet access has been made

available for students and teachers.

- Open educational resources and study materials are provided through e-mails, Google groups and Whatsapp.

- The University organizes orientation programmes and hands-on training to familiarize teachers and students with modern gadgets software etc.

- Digital online teaching-learning interactive platform-Edmodo introduced in the School of Tourism Studies, facilitates online discussions, assignments and tests. Similarly, other multi-modal, multimedia e-learning platforms are also used in various Schools.

- MOOC programmes are offered by International and Inter-university Centre for Nanoscience and Nanotechnology and the School of Environmental Sciences.

- Students are encouraged to participate in Webinars organized by leading international organizations. They are advised to make use of e-learning resources, particularly by NPTEL, Coursera and other leading universities.

- School of Behavioural Sciences utilizes software in Rorschack Interpretative Assistance programme and Statistical Package for Social Sciences for developing skills among students.

**2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?**

At Mahatma Gandhi University, the teaching-learning process is carried out with the maximum use of the technologies for improving the quality of teaching. The facilities like virtual laboratories, e-learning, open educational resources and mobile education are used for the benefit of students.

- Official email id is allotted to all staff members. Faculty members are trained in open source learning through awareness programmes.

- The teachers exchange learning materials through e-mails, Google groups, online teaching-learning platforms and Whatsapp.

- Students are also taught to use the best scientific software and databases available on the web.

- Free MOOC program in collaboration with IIRS, ISRO, Hyderabad is given to the students in School of Environmental Sciences.

- Modelling and simulation packages are used by many faculty members to make reasonable predictions.

- World class travel simulation softwares are utilized in the School of

Tourism Studies.

- The access of e-journals through KOHA, J-gate Plus, Sciencedirect, UGC-INFONET and SciFinder are available to faculty and students.

- Faculty utilizes all available e-Learning resources from various international Universities for effective teaching .

- Online submission of assignments and online monitoring system is adopted by some of the faculty members. On line tests are another important mode of evaluation of the students.

- DAISY, the Software for the visually impaired is available in the University Library for improving the learning capabilities of blind students.

**2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the university's educational processes?**

Yes. The free software based e-gateway provided by the University Library gives access to various important journals. This facility is extensively used by the faculty and students to update their knowledge. Faculty members and staff of each school and library, provide regular update and communication regarding promotion of Open Access resources (including journals, databases etc.) for the benefit of students. Orientation/training programmes on open source software are organized for faculty and students. The schools, University Library, Centre for High Performance Computing and University Web Centre also provide internet and Wi-Fi for e-learning. Software for checking plagiarism is available in the University Library which is utilized during preparation of M.Phil/Ph.D theses and papers for publication in journals.

**2.3.9 What steps has the university taken to convert traditional classrooms into 24x7 learning places?**

- Wi-Fi facilities in the schools, Computer Centre, Web Centre, library and hostels, provide students access to open and subscribed e-learning resources at any time of the day.

- Students are given online assignment/tests/discussions/seminars/ surveys/projects, so that they can work during off hours also.

- Digital online teaching-learning interactive platform - Edmodo in the School of Tourism Studies facilitates online discussions, assignments and tests anytime from anywhere.

- The laboratory and computer facilities are accessible to all students beyond the office hours and holidays.

- Students are encouraged to participate in webinars using video and web conferencing facility.

- Flipped class room concept is introduced effectively.

**2.3.10  Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.**

Yes. Faculty members act as mentors/advisors for the students. As per CSS regulations, there is a Faculty Advisor to each batch of students. The students can approach them any time for academic, personal and psycho-social advice. Counselling facility is offered by the faculty at the School level to the students during different stages of the course to enlighten the students about career progression and placements. If counselling is necessary, services of the Clinical Psychologist in the School of Behavioural Sciences are arranged. The number of such cases is less than 5%.

**2.3.11  Were any innovative teaching approaches/methods/practices adopted/put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?**

The university has been promoting innovations in teaching in an effective way. Different Schools have adopted strategies to enable a better learning atmosphere.

The University also gives prominence to ICT enabled teaching and encourages students and teachers alike to make extensive use of online resources available for effective teaching.

Some of the innovative practices adopted by various schools are as follows:

- In School of Social Sciences, archeology being a major component of the masters and research programmes, an archeological museum has been set up which gives the opportunity for the students to participate in the process of excavation, exploration and the sorting of the remnants and in the process of preservation.

- School of Behavioural Sciences has ventured outside the classroom where students under the guidance of teachers specialize in dealing with the problems of differently abled children and their rehabilitation.

- Certificate and Diploma course in Organic Farming offered by the Department of Life Long Learning and Extension gives its students the practical knowledge of organic farming through field works using virgin soil seen naturally only in forests. This is indigenously prepared in the

practical classes using innovative technology.

- Demonstrative cum interactive method of teaching is employed in School of Environmental Sciences with operating models like rain water harvesting system, 'Self-Contained PV-Powered Domestic Toilet and Wastewater Treatment System' from California Institute of Technology, USA and bio-gas plant for waste management which provides students the first hand knowledge about the working of these models. Dr. R. Satheesh Centre for Remote Sensing and GIS of this school offers programmes using ICT tools which include Edusat based online outreach courses on geospatial tools and applications in collaboration with Indian Institute of Remote Sensing (IIRS), Dehradun mainly through the Amrita Virtual Interactive e-learning World (A-View) internet online platform.

- The flipped classroom is an important teaching method where the students prepare their notes before hand and come prepared to the class. They give lectures as the faculty member, seated along with the other students, listens and serves as a mentor and offers concluding remarks.This is being practiced in School of Chemical Sciences, IIUCNN and SIRP.

- To meet the global industry's requirements, School of Tourism Studies has incorporated the use of travel simulation software, and online interactive platforms like Orell and Edmodo to enrich the quality of teaching and learning.

- School of Pure and Applied Physics has developed an innovative method for simulating biomolecular activities using computer aided techniques for protein drug interaction.

- Project Simulation Method or Problem based Learning is an innovative teaching strategy introduced at the Inter University Centre for Disability Studies aimed at producing professionals who can solve problems using their imagination and critical analytical skills by pairing it with the most advanced theories on pedagogical practices.

- The School of International Relations offered platform for collaborative seminar in public policy and governance as well as various outreach programmes for Human Rights.

- K.N Raj Centre provided facilities for learning programmes to strengthen studies in areas like planning, budget and fiscal management.

- In addition to the above innovative methods, other features  like inter-School open courses, brainstorming sessions, focused group discussions/ seminars, tutorials, case study analysis, journal club, panel discussions, webinars and video conferencing facilities for real time interaction with experts/scientists are made use of.

**Improvement in learning**

The practices mentioned above enabled the students to develop knowledge, skill and aptitude. Technology based learning also helped students to acquire required skills.

**The methods used to evaluate the impact of such practices**

The performance of the students in seminars, group discussions, summer schools, outreach programmes, field study/project works and national level tests are considered as yardsticks to evaluate the impact. The impact of the innovative teaching-learning approaches is assessed through examination outcomes, placements etc. Positive feedback from the stakeholders is another indicator of the improvement in learning and performance.

**Recognition for innovation in teaching**

Some of the teachers got awards and recognitions in professional bodies, for outstanding performance and contribution in teaching and research. Considering the outstanding overall performance, the university has initiated steps to recognize those outstanding academics by awarding and publically recognizing them through issuance of Certificate of Merit.

**2.3.12 How does the university create a culture of instilling and nurturing creativity and scientific temper among the learners?**

The university has made several attempts at instilling creativity and scientific temper among the learners.

**Post Graduate Level**

➢ Peer-to-peer interaction

➢ Participating in management and technology meets

➢ Involvement of students in individual/ group research projects

➢ Special lectures and motivational talks by eminent speakers

➢ Involvement of the students in co-curricular, extracurricular and extension activities

➢ Guidance and counselling to the students

➢ Individual and group assignments

➢ Flipped Classroom

➢ Field visits and study tours

➢ Participation/ organizing of seminars and conferences.

➢ Summer schools and outreach programmes.

**Ph.D Level**

➢ Peer-to-peer interaction

> Weekly group meetings by Ph.D advisors

> Research Forum

> Journal Club

> Research article based teaching

> Encouraging young learners to present their findings in conferences

> Publish their findings in journals

> Promoting patenting

> Business Innovation and Incubation Centre (BIIC)

**2.3.13 Does the university consider student projects mandatory in the learning programme? If yes, for how many programmes have they been (percentage of total) made mandatory?**

Yes. The University considers the project work mandatory in all the P.G, M.Phil., and M.Tech. programmes. As per the scheme, project work and viva-voce, along with project presentation are mandatory for all the students pursuing P.G., M. Phil., and M.Tech. programmes in various Schools/Centres of the University. Accordingly some of the brilliant master and M Phil students come out with a high impact publication during their project phase.

- **Number of projects executed within the University:**

  Approximately 1600 student projects were undertaken during the assessment period.

- **Name of external institutions associated with the university for student project work:**

> Centre for Development of Advanced Computing (CDAC), Trivandrum

> Keltron, Trivandrum

> Centre for Development of Imaging Technology (CDIT), Trivandrum

> Centre for Artificial Intelligence and Robotics(CAIR), Bangalore

> Indian Space Research Organization, Trivandrum

> Polus S/W Pvt. Ltd. Technopark, Trivandrum

> Suntech Solutions, Technopark, Trivandrum

> Hages Business Solutions, Technopark, Trivandrum

> School of Computational Biology, University of Kerala, Trivandrum

> School of Computer Science, University of Kerala, Trivandrum

> Cochin University of Science and Technology¸Kochi

> NEST Cyber Campus, Trivandrum

- Indian Institute of Science (IISc.), Bangalore
- Indian Institute of Science Education and Research  (IISER), Trivandrum
- National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum
- Rubber Research Institute of India(RRII), Kottayam
- National Chemical Laboratory (NCL), Pune
- Indian Institute of Technology (IIT), Kanpur
- Indian Institute of Chemical Technology (IICT), Hyderabad
- Central University, Hyderabad
- Jawaharlal Nehru Centre for Advanced Scientific Research (JNCSR), Bangalore
- Sree Chithra Thirunal Institute for Science & Technology (SCTIMST), Trivandrum
- Bhabha Atomic Research Centre (BARC),  Mumbai
- Tata Institute of Fundamental Research (TIFR), Mumbai
- National Centre for Antarctic and Ocean Research(NCAOR), Goa
- National Institute of Oceanography (NIO), Mumbai
- Sálim Ali Centre for Ornithology and Natural History (SACON), Coimbatore
- Centre for Water Resources Development and Management (CWRDM), Calicut
- Tropical Botanical Garden Research Institute (TBGRI), Trivandrum
- National Disaster Management Authority (NDMA), New Delhi
- National Centre for Earth Science Studies (NCESS), Trivandrum
- Centre for Molecular Biology (CCMB), Hyderabad
- Rajiv Gandhi Centre for Biotechnology (RGCBT), Trivandrum
- Indian Council of Agricultural Research (ICAR), New Delhi
- Regional Cancer Centre (RCC), Trivandrum
- Cashew Export Promotion Council, Kollam
- Raman Research Institute (RRI), Bangalore
- Institute for Plasma Research (IPR), Gujarat
- Saha Institute of Nuclear Physics (SINP), Kolkata

- Indian Institute of Geomagnetism ( IIGM), Mumbai
- Universiti Teknologi Mara, Malaysia
- Changwon National University, Korea
- Siberian Federal University, Russia
- Walter Sisulu University, South Africa
- Alamaty Institute of Power Engineering and Telecommunications, Kazakhistan
- Deakin University, Australia
- SABIC Innovative Plastics, USA
- University of Pretoria, South Africa
- Universite De Rouen, France
- University of Lorraine, France
- University of Lyon, France
- Kansas State University, Manhattan, Kansas, USA
- Vellore Institute of Technology, Vellore, Tamil Nadu
- Goodyear Tyre and Rubber Company, Ohio, USA
- King Mongkut's University of Technology, North Bangkok, Thailand
- University of Antioquia, Colombia
- MIREA, Moscow Technical University, Moscow, Russia
- Physikalische Chemie und Physik der Polymere, Leibniz-Institut fur Polymerforschung Dresden, Germany
- Qilu University of Technology, China
- National Taiwan Ocean University, Taiwan
- University of Aveiro 3810-193, Portugal
- MIREA ,Moscow Technical University, Moscow, Russia
- Center for Blood Research and Department of Pathology & Laboratory Medicine, University of British Columbia, Vancouver BC, Canada
- Centre for Development Studies,Thiruvananthapuram.
- Jawharlal Nehru  University, New Delhi.
- Kerala Institute of Local Administration (KILA), Thrissur.
- Kerala State Planning Board, Thiruvananthapuram.
- Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram.

> Institute for Sustainable Development and Governance (ISDG), Thiruvananthapuram.

> Jinan National University, China.

**Role of faculty in facilitating such projects:** Faculty members guide students in identifying and formulating the project proposal and linking them with reputed institutions. They constantly monitor the progress of the project work. Students usually undertake projects with research, industrial, social, economic, commercial, literary and educational organizations. Each student is supervised/guided by a faculty member having expertise in the area of study. In some of the interdisciplinary research programmes, the student is supervised by a faculty from the university and an expert from the host institution and this very often leads to a joint publication between the university and the partnering institution.

**2.3.14 Does the university have a well qualified pool of human resources to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?**

Yes. The University has well-qualified and distinguished pool of faculty members in different disciplines. There is a disparity between the number of teaching posts sanctioned and those which are filled. The University addresses this manpower issue by availing the services of Emeritus/Visiting Professors, Adjunct Faculties, Guest Lecturers and Contract Lecturers. At present twelve Emeritus/Visiting Professors are serving the University.

**2.3.15 How are the faculty enabled to prepare computer-aided teaching/ learning materials? What are the facilities available in the university for such efforts?**

- All teachers are provided with personal computers with unlimited internet connectivity.

- Schools/Centres are equipped with smart classrooms.

- Modern multimedia teaching aids like LCD projectors, smart boards etc are available.

- Virtual programmes, teaching-learning software, and video conferencing facilities are also available.

- The university encourages blended learning by using online teaching learning platforms and e-learning resources.

- Orientation programmes and hands-on training for familiarizing faculty members with the use of various software for teaching-learning are conducted regularly.

**2.3.16 Does the university have a mechanism for the evaluation of teachers by the students/alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?**

Yes. The university uses the feedback obtained from students and alumni in the prescribed format to evaluate the teachers. The feedback received from different groups of students and alumni are compiled by the Head of the concerned School/Centre and will be discussed in the Faculty Council for appropriate action. The feedback helps respective teachers to know and improve teaching methods and to develop the course content in succeeding years. Discussion with individual teacher is done by the Head of the Department for taking remedial measures.

**2.4. TEACHER QUALITY**

**2.4.1 How does the university plan and manage its human resources to meet the changing requirements of the curriculum?**

The University focuses on quality improvement by encouraging and enabling faculty to:

- Attend refresher, and orientation courses organized by the UGC-Academic Staff Colleges and other reputed institutes.

- Acquire higher qualifications like Ph.D, and Post-Doctoral research under Faculty Development Programmes (FDP) and to avail international fellowships.

- Avail visiting fellowship in reputed institutions and foreign universities.

- Attend academic and training programs in their respective discipline, as well as to organize national/ international workshops/ seminars/ conferences etc.

- Pursue inter-disciplinary approach in research and academic program designing.

- Undertake consultancy with industry/organizations which helps in better curriculum designing and to initiate research programs for students.

- Carry out quality research and publish papers in reputed journals and filing of patents.

- Avail research grants from national and international agencies.

- Supervise the students - research work at PG, doctoral and post-doctoral levels.

- Develop collaborative research programs with reputed national/ international institutions and organizations.

- The university is also able to attract post-doctoral fellows from different

parts of the country to take up the challenging task of research and in some cases teaching assignment in different schools and centres.

- Ph.D students also take part in supporting master level laboratory exercises and projects for the students which is mutually beneficial.

## 2.4.2 Furnish details of the faculty

| *Highest Qualification* | *Professors* | | *Associate Professors* | | *Assistant Professors* | | *Total* |
|---|---|---|---|---|---|---|---|
| | *M* | *F* | *M* | *F* | *M* | *F* | |
| *Permanent Teachers* | | | | | | | |
| D.Sc./D.Litt. | 1 | - | - | - | - | - | 1 |
| Ph.D. | 17 | 4 | 16 | 5 | 27 | 8 | 77 |
| M.Phil. | - | - | 1 | 2 | 2 | 3 | 8 |
| P.G. | - | - | - | - | 2 | 3 | 5 |
| *Temporary Teachers (Guest Faculty)* | | | | | | | |
| Ph.D. | - | - | - | - | 8 | 5 | 13 |
| M.Phil. | - | - | - | - | 8 | 4 | 12 |
| P.G. | - | - | - | - | 10 | 16 | 26 |

## 2.4.3 Does the university encourage diversity in its faculty recruitment? Provide the following details (school/school-wise).

Yes. The university follows the regulations of UGC and the state government policies in recruiting faculty to various Schools. Following is the breakup of recruitment for regular faculties:

| School/ School | Faculty from the same university (%) | Faculty from other universities within the state (%) | Faculty from universities outside the state (%) | Faculty from other countries (%) |
|---|---|---|---|---|
| School of Behavioural Sciences | 17 | 66 | 17 | 0 |
| School of Biosciences | 27 | 64 | 0 | 9 |
| School of Chemical Sciences | 10 | 60 | 20 | 10 |
| School of Computer Sciences | 0 | 50 | 50 | 0 |
| School of Environmental Sciences | 50 | 0 | 50 | 0 |
| School of Gandhian Thought and Development Studies | 25 | 50 | 25 | 0 |

| | | | |
|---|---|---|---|
| School of Indian Legal Thought | 17 | 83 | 0 | 0 |
| School of International Relations and Politics | 0 | 60 | 40 | 0 |
| School of Letters | 42 | 29 | 29 | 0 |
| Department of Life Long Learning & Extension | 0 | 100 | 0 | 0 |
| School of Management and Business Studies | 12 | 64 | 24 | 0 |
| School of Pedagogical Sciences | 0 | 89 | 11 | 0 |
| School of Physical Education and Sports Sciences | 0 | 75 | 25 | 0 |
| School of Pure and Applied Physics | 43 | 28 | 29 | 0 |
| School of Social Sciences | 0 | 50 | 50 | 0 |
| School of Tourism Studies | 40 | 20 | 40 | 0 |

**2.4.4 How does the university ensure those qualified faculties are appointed for new programmes/emerging areas of study (Bio-technology, Bio-informatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programmes during the last four years?**

In the event of recruitment for new programmes, advertisements are given in widely circulated dailies and in the university website. Applications are thoroughly scrutinized and open selections are made purely on merit-cum-reservation basis. In the last four years, three permanent faculty members were appointed. If the University has constraints in filling up the post, then qualified and experienced persons are appointed as guest faculty. 56 guest faculty members have been appointed in various schools since 2010. It is to be noted that Mahatma Gandhi University is the only university in the state of Kerala which has been awarded the DBT BUILDER Programme by Department of Biotechnology, Government of India, in which 3 Assistant Professors have been appointed.

Most of the faculty members in the university have strong motivation, self learning initiatives and national/international collaborations and experience

which lead to the development of competence to teach and initiate research in new areas like Nanotechnology, Material science, Forensic computing etc.

### 2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the university?

At present there are four Emeritus Professors and six Visiting Professors serving the University.

### 2.4.6 What policies/systems are in place to academically recharge and rejuvenate teachers? (*eg. providing research grants, study leave, nomination to national/international/conferences/seminars, in-service training, organizing national/international conferences etc.)?*

The policies/systems of the Mahatma Gandhi University for the academic recharge and rejuvenation of teachers are:

- Faculty Development Programme for University/College teachers.

- Deputing teachers to attend FDP and Staff Development Programmes (SDP) organized by different Universities with the help of UGC funding.

- Granting study leave and sabbatical leave to the faculty for higher studies/ research.

- Providing financial assistance to faculty to participate in national and international seminars and conferences to acquire latest developments in their area of research.

- Special casual leave (10 days/year), and duty leave (30days/year) to teachers for attending conferences/seminars and other academic activities in other universities.

- Encouraging and funding university schools to organize national and international conferences/seminars and workshops.

- Allowing University Schools to procure state of the art equipment for the establishment of new laboratories.

- Providing doctoral and post-doctoral scholarships for promotion of higher education and high quality research.

- Funding for procuring latest references/textbooks, journals and other e-resources for University library and School libraries.

- University has organized several training programmes and workshops for patent awareness.

- International, Inter-University and Inter School Centres augment the university in its effort to become potential Centres of Excellence in their areas of specialization.

- DST funded Inter University Instrumentation Centre provides faculties and students accessibility to sophisticated scientific devices.

- Academia Convergence Complex has been set up by the university to strengthen interdisciplinary and multidisciplinary research programmes by sharing human resources, sophisticated scientific devices and laboratories of all the Inter-University and Inter-School Centres.

**2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?**

| 2011 |
|---|
| • Carl Trygger Post-doctoral Research Fellowship (2011): Uppsala University, Sweden  (**Dr. S. Anas**, School of Chemical Sciences) |
| **2012** |
| • Fellow of the Royal Society of London, FRSC, 2012 (**Prof. Sabu Thomas**, School of Chemical Sciences)<br>• Research Award from UGC for a research on the Cultural implications of the transformations of boat races in Kuttanad, Kerala (**Dr. Aju K.N**, School of Letters) |
| **2013** |
| • Bronze Medal of Chemical Research Society of India, 2013 (**Prof. Sabu Thomas**, School of Chemical Sciences)<br>• Materials Research Society of India Award (2013). (**Prof. Sabu Thomas**, School of Chemical Sciences)<br>• Professorship at IIT, Madras (**Dr. M. S. John**, School of Gandhian Thought and Development Studies)<br>• Best Teacher Educator Award of Council of Teacher Educators (CTE, 2013), (**Dr. Celine Pereira**, School of Pedagogical Sciences) |
| **2014** |
| • Society for Educational and Scientific Research. (SESR)  Nanotech Scientist Award- 2014 (**Prof. Sabu Thomas**, School of Chemical Sciences)<br>• Research Award from UGC for a project on the Construct of the Nation in Post independent Malayalam Cinema(**Dr. Saji Mathew,** School of Letters) |
| **2015** |
| • Honorary doctorate (D.Sc.) from the University of South Brittany, Lorient, France (2015) (**Prof. Sabu Thomas**,  School of Chemical Sciences)<br>• Nanoscience Research Leader Award 2015 by Cognizure Publishers, hostess of the International Journal - Science Letters (**Prof. Suresh Mathew**, School of Chemical Sciences) |

- Gandhian Service Award 2015 (**Dr. George Joseph,** School of Indian Legal Thought)

| **2016** |
| :--- |
| - Rudolph A Marcus Award 2016 in Chemical Sciences by Lognor, Publishers of Science Advances Today (**Prof. Suresh Mathew**, School of Chemical Sciences). |
| - Second prize in the Evonik Industries Chemistry Research Proposal competition ECRP 2016, Germany (**Dr. G. Anilkumar**, School of Chemical Sciences). |
| - **Dr. APJ Abdul Kalam Award** for Scientific Excellence – 2016 (**Prof. Sabu Thomas**, School of Chemical Sciences). |
| - The **Loyalty Award** "International Materials Technology Conference Exhibition" **May 2016 Loyalty Award Club (Membership Number - IMTCE-LC-017 ) (Prof. Sabu Thomas**, School of Chemical Sciences) |

### 2.4.8 How many faculty underwent staff development programmes during the last four years (add any other programme if necessary)?

For enriching the teaching-learning process and promotion of excellence in teaching and research, the University encourages teachers to undergo training and development programmes. The details of staff who have undergone Staff Development Programs during the last six years are given in Table.

| *Academic Staff Development Programme* | *2010-11* | *2011-12* | *2012-13* | *2013-14* | *2014-15* | *2015-16* |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Refresher courses | 4 | 3 | 4 | 3 | 3 | 3 |
| Orientation programmes | 2 | 2 | 3 | 2 | 2 | 1 |
| HRD programmes | 2 | 1 | 2 | 1 | 2 | 1 |
| Staff training conducted by other institutions | 4 | 3 | 4 | 4 | 5 | 3 |
| Staff training conducted by the university | 1 | 1 | 1 | 1 | 1 | 1 |
| Summer/Winter schools, workshops etc. | 14 | 16 | 15 | 17 | 16 | 15 |

**2.4.9  What percentage of the faculty have:**

➢ **been invited as resource persons in Workshops / Seminars / Conferences recognized by National / International professional bodies?**

About 85% of the faculty have been invited as resource persons in workshops/seminars/conferences.

➢ **participated in external Workshops / Seminars / Conferences recognized by National / International professional bodies?**

Almost 100% of the faculty have participated in workshops/seminars/

conferences recognized by National/ International professional bodies.

➢ **presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies?**

Allmost 100% of the faculties have presented papers in workshops/ seminars/conferences conducted or recognized by professional agencies.

➢ **teaching experience in other Universities/National institutions and other institutions?**

About 80% of the faculty have taught in other Universities, national institutions and industry.

➢ **Industrial engagement?**

About 30% of the faculty have worked in industries or have exposure to industrial scale operations.

➢ **international experience in teaching?**

About 20% of the faculty have international experience in teaching.

**2.4.10  How often does the university organize academic development programmes (*e.g.*: curriculum development, teaching-learning methods, examination reforms, content/knowledge management etc.) for its faculty aimed at enriching the teaching-learning process?**

The university, through its Schools and IQAC regularly conducts meetings and programs for updating curriculum content, upgrading the teaching techniques, adopting new technologies for teaching, thus enabling the students to benefit. University encourages faculty members to attend orientation/ refresher courses/staff training/summer/winter workshops. The university reviews the curriculum, examination system practices, teaching-learning methods and takes necessary steps for their improvement. Examination reforms are a constant exercise in the university, as per the needs and changing

academic scenario. Periodic meetings are conducted by the CSS to discuss the reforms required and they are implemented, upon the approval of the Academic Council. An International Faculty Developmet Programme was organized in collaboration with North Carolina State University in 2014 at the campus. A faculty Development programme for University faculty was conducted by the University from 30th July to 12th August 2015.

**2.4.11 Does the university have a mechanism to encourage**

- **Mobility of faculty between universities for teaching?**

- **Faculty exchange programmes with national and international bodies?**

**If yes, how have these schemes helped in enriching the quality of the faculty?**

Exposure of faculty to other national and international bodies has been highly beneficial. The University encourages the faculty to take up teaching and research assignments in other universities, including foreign universities both for short and long periods as visiting fellows. Similarly, the university regularly invites experts, visiting faculty and resource persons from other universities and research institutes in India and abroad.

Collaborations have been established with such institutions and the university has signed many MoUs with national and international institutions. Through this, the faculty members of Mahatma Gandhi University visited these universities and delivered lectures and interacted with the leading researchers. Through international collaborative projects, researchers also get the opportunity to carry out joint advanced research and to gain expertise in their respective areas of research and teaching. This experience has also been beneficial to improve the overall academic quality in the university.

University has several chairs, and distinguished Professors and diplomats from India and abroad are invited to receive Chair Professorship. The Chair Professors/ diplomats interact with the faculty members and students on areas of mutual interest. Joint research publications and patents with academics from other institutions are ample testimony to the effectiveness of collaborative programmes.

## 2.5 Evaluation Process and Reforms

### 2.5.1 How does the University ensure that all the stakeholders are aware of the evaluation processes that are in place?

The Mahatma Gandhi University ensures transparency and accountability in evaluation of students in various programmes through various strategies. This is applicable to both internal and external components. Internal evaluation is continuous and teachers provide adequate and timely feedback to students. Their marks/ grades are intimated and sufficient remedial measures are suggested for improvement.

All Schools in the University conduct induction programmes for freshers. During the induction programme, the students are given an idea about the structure of the programme and evaluation processes involved. The University has adopted progressive evaluation strategies at the University School level. It has been conducting courses with academic flexibility on a credit based system.

Internal examination uses a large variety of evaluation strategies, such as test papers, surprise tests, seminars, projects, practical, and industrial visits. Guidelines showing components of internal and external assessments are displayed in the University website. Mark lists of internal examinations are put up on the notice board. The system of employing external examiners for setting of question papers and valuation during alternate semesters is another feature.

As per the PG regulations of the university, the performance of a student in a course is assessed (evaluation) in two stages – Continuous Assessment (CA with 50% weightage) and End Semester Assessment (ESA with 50% weightage).The faculty in charge of the course  informs  the continuous assessment strategies, modes, schedule, weightage etc. of a course in the syllabus and publishes it in the website for information to registered students.

The schedule of the ESA, finalized by the respective Faculty Councils is published on the notice board  for information to all concerned. The Heads of the respective schools consolidate the continuous assessment scores of different courses of a programme for a given semester.  Different modes of grievance redressal mechanism are functional at faculty, school and university levels.

As per the PG regulations of the university, a double blind valuation scheme (one internal and the other external) is in place for the end semester assessment. The schools finalize the grades of the individual courses considering the performance of the students in CA and ESA. The final results are forwarded to the office of the Controller through the CSS for final approval and publication. Assessments of the course work of  Ph.D/M.Phil students are also done in a transparent manner and they are published in the notice board.

**2.5.2 What are the important examination reforms initiated by the University and to what extent have they been implemented in the University Schools and affiliated colleges? Cite a few examples which have positively impacted the examination management system.**

The university has successfully implemented CBCSS for the various programmes.Use of ICT in managing the finalization of examination results has been introduced saving a lot of labour, time and paper. The University publishes examination calendar every year highlighting deadlines for all examination related matters.

The University has also introduced fast track mode for issuing of degree certificates by which the students can have the same within a period of 30 days from the date of application, once the result is published.

There is a proposal for having an open book examination and each school has been asked to suggest areas where this can be implemented. Other than this, several modes of internal evaluation are being experimented in various Schools and Centers of the University which include objective question exams, commentaries, evaluating movies/ documentaries etc. For the PhD programme, new proposal has been made for the rapid evaluation of thesis and conduct of the viva voce examination by Skype for fastening the process which is under the consideration of academic bodies.

The performance of the students in the seminars and assignments is judged based on the criteria prepared by the concerned faculty and approved by the Faculty Council. Assignments and seminars are conducted by the Schools concerned in a manner that helps the students to develop a clear perspective and a critical appraisal of the issues around them. For example, in the School of Environmental Sciences assignments on field problems related to societal needs (like solving drought in an area, mitigating landslides, mapping an area to find out resources, surveying of an area) are given to students as assignments and group projects which are evaluated. Such activities provide students an opportunity to identify a research problem and to come out with exciting results.

In the School of Chemical Sciences,teachers apply new teaching strategies like flipped class rooms for internal evaluation and better dissemination of knowledge. In School of Letters, apart from regular seminars, students are asked to develop and perform drama and other art forms as part of  their evaluation process. In the School of International Relations and Politics, film reviews are regularly done as part of specialized courses.

In the School of Communication and Journalism, students prepare news reports and make their own visual presentation. They are recorded on video camera and are screened before the whole class to be evaluated by the peer group. The students also  prepare news reports which are designed, edited and finalized using different editing software.

**2.5.3  What is the average time taken by the University for Declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the University for the Publication of examination results (e.g. website, SMS, email, etc):**

The University has been very prompt in the conduct of examinations and timely publication of results. All Schools in the University are being provided with the academic autonomy facilitating immediate declaration of results. Results are published within 60 days of the last exam of the particular semester. Normally there is no delay in the publication of results as each School starts the valuation process within 10 days after an examination. The results for the affiliated colleges are published through the website (www.mguniversity.edu. –Examinations).

**2.5.4. How does the University ensure transparency in the evaluation process? What are the rigorous features introduced by the University to ensure confidentiality?**

The university ensures full transparency in the evaluation process. Confidentiality and transparency are maintained throughout the pre examination, examination process and post examination processes.The paper setters are nominated by the Vice-Chancellor from the panel suggested by examination committee. The answer books are checked by qualified experts appointed by the Vice- Chancellor. To ensure transparency, students are allowed to see the evaluated answer books and can record their grievances. Projects work is evaluated by external and internal examiners as per the provisions of the university. The faculty members supervise the project work and give proper feedback from time to time.

A grievance cell is constituted by the CSS to address the grievance of the students at the School level as well as at the University level.

**2.5.5 Does the University have an integrated examination platform for the following processes?: Pre – examination processes and Post Examiation processes**

**Pre – examination processes:**Mahatma Gandhi University follows an integrated examination process. Pre-examination process involves notification of examination date, registration for exams and issue of hall tickets to students online. Also the examination section generates student attendance list.

Invigilators for conduct of examinations and expert members as squads for surprise visits in the examination centres are appointed by the university. Information of question paper setters is strictly confidential and dealt by the Controller of Examinations. The list of external examiners in double valuation scheme is handled by Chairman of Pass Board with the approval of the Vice-Chancellor in a confidential manner.

**Examination processes** All examination materials are counted, listed and accounted for. Actual conduct of examination is done by concerned institutions in their premises following the examination manual. The paper setters are nominated by the university from the panel suggested by examination committee. The answer books are checked by qualified experts appointed by the university. False number system is being followed at UG/PG levels in colleges during the evaluation to ensure confidentiality.

**Post – examination processes**

Attendance sheets are generated for each examination and the same is forwarded to the Controller of Examination. All answer sheets are sealed in assigned covers in the examination hall. The Chief Superintendent/HOD has the safe custody of papers. As stated earlier, the scripts are evaluated and minutes of the Pass Board (with tabulated mark list) are transferred to the Controller of Examination for

processing, results publication and certification. Students are allowed to  see their evaluated answer books to ensure transparency.

### 2.5.6  Has the University introduced any reforms in its Ph.D evaluation process?:

Mahatma Gandhi University has introduced reforms since July 2010  for its Ph.D programmes.  The university strictly follows the UGC regulations for evaluating Ph.D thesis. The new regulations contain details regarding the admission process, number of candidates to be guided by a supervisor at any given time, constitution and conduct of doctoral committee, course work and evaluation of thesis.

The Ph.D Regulations 2010 contain several provisions relating to evaluation of Ph.D thesis which is followed by the University. They include the following

- The maximum time given for valuation of Ph.D thesis is 45 days.

- On non receipt of evaluation report from the examiner concerned reminders are sent to the examiner after 30 days and a further reminder is sent after 45 days in addition to contacting the person concerned over phone/ e-mail.

- On non receipt of report from the examiner after 60 days from the date of assigning valuation, orders are issued by the Vice Chancellor to cancel the appointment and directions are issued to the examiner concerned to return the thesis. The thesis is then forwarded to a fresh examiner whose name is marked next in the panel of examiners by the Vice Chancellor.

- Monthly updates regarding submission of synopses/thesis along with the subject and date of submission; conduct of open defence, public viva-voce along with details like date of submission of thesis, date of viva- voce and remarks, if any, are submitted to the Vice Chancellor and the  Director of Research.

- Declaration is sought from those who are appointed as adjudicators seeking their willingness to act as Chairperson and to conduct open defence/ public viva voce. If the examiner does not give consent for the above, fresh consent is sought from the next selected person in the panel of examiners.

- After the valuation of the thesis the first among the three examiners in the order of preference is appointed as Chairperson by the Vice Chancellor and the examiner concerned is requested to give acceptance for the same within 15 days of receiving the nomination letter. The date of viva voce is within 30 days of receipt of acceptance by the Chairperson. The copies of the evaluation reports are also sent to the Chairperson. In case the first examiner does not respond the next in the order of preference is appointed as chairperson.

- The university has dispensed with the practice of getting consolidated report from the Chairperson after completion of Ph.D valuation.

- The panel of examiners for adjudication of thesis consists of 10 to 12 experts of national or international standing known for their integrity and judgment and having no less than 10 years of teaching/research in the subject concerned.

- 50% of the experts in the panel are form outside the state.

- The invitation for Ph.D Open Defence and public Viva Voce can be sent by ordinary post instead of under certificate of posting and registered/speed post.

### 2.5.7 Has the University created any provision for including the name of the college in the degree certificate?

Mahatma Gandhi University has ten autonomous colleges which were started in the academic year 2014-15. University Law's 3rd Amendment Act 2014, by the Government of Kerala stipulates that the name of the autonomous college shall be mentioned in the certificate conferring the degree/diploma/title certificate, if the college requests for the same. The first batch of the students are yet to passout from the autonomous colleges.

### 2.5.8 What is the mechanism for redressal of grievances with reference to examinations?

Complaints with regard to examinations and results are adequately addressed and wherever necessary re- examinations and revaluations are conducted.

- In case of grievances regarding conduct of class test, semester examination and valuation methodology, students can approach the concerned teacher for grievance redressal.

- Further appeals can be made at the School/Centre level where a grievance redressal cell headed by the Director of the School is in place.

- A third level of appeal is the University level Grievance Redressal Cell which is the final authority for examination related grievance redressal.

- As regards external examinations, the student can apply for re-valuation as well as scrutiny of answer books, in the case of UG programmes. Recently, the University has introduced a scheme whereby the student can access photocopies of his/her answer books.

**2.5.9** **What efforts have been made by the University to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.**

The Office of the Controller of Examinations of the university is at present headed by the Controller of Examination. Mahatma Gandhi University conducts examinations for the different programmes offered through its schools, centres, self financing institutions run by the university, affiliated aided colleges and affiliated unaided colleges during two sessions every year.

The website of university provides a single window online facility for every candidate of the University for pre-examinations enrollment, registration to University examinations and getting the scores in the examinations. Colleges can submit details of candidates for examination registration and download hall tickets online through this portal.

The examination manual has been issued which contains clearly defined duties and responsibilities of staff at the office of the Controller of Examinations. This has resulted in the smooth functioning of the office.Evaluation of answer scripts of most of the programmes offered by the University is done by way of centralized valuation camps ensuring coding before evaluation process.

One of the significant measures which benefitted the students' community is the issue of degree certificates under fast track mode by which the students can have the same within a maximum period of 21 working days from the date of application.

## 2.6. Student Performance and Learning Outcomes

### 2.6.1 Has the University articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

The Mahatma Gandhi University has a clear vision and mission for achieving its academic goals. Each individual school has framed its own vision and mission regarding the graduate attributes expected to achieve in tune with that of the university.

The UGC emphasizes the importance of knowledge, development of skill, technology application, communication and presentation ability promoting the development of research culture and ethics. The university too, in its mission, speaks of these attributes to be achieved. Various academic programmes are planned and designed to achieve the attributes set by the regulatory bodies as well as the university.

The Mahatma Gandhi University advocates promotion of graduate attributes in acquiring conceptual, original and up-to-date knowledge in his/her discipline with the best practical orientation. With good communication skills and fine ethical values, excellent social responsibilities and environment friendly enterprises, the graduates are expected to become the torch bearers of wisdom.

The above is facilitated by the lectures that are combined with presentations, case studies, group discussions, class tests and projects. Monitoring of these attributes is done at the faculty and at school level. Strong practical orientation is achieved through  practical classes, laboratory work and projects in – School, Industry and   advanced institutions. Again monitoring of achievements and their final outcome is done at the School level.

There is adequate emphasis on development of skills required to perform effectively in the industry, research and higher educational fields after completion of the academic programme. Hands on experience is provided whenever and wherever possible to promote  a better understanding of real life situations and reciprocate effectively.

A Language Laboratory and a  Career Counselling and Placement Cell functions in the University to enhance the communication skill of students. The University also gives emphasis on promotion of business incubators and start-up ventures with the objective to kindle the entrepreneurial spirit among students, and provide customized support to pioneering business ideas with high growth potential. These initiatives support job creation, university – industry  collaboration, and generate  revenues  for  local  business  and governments.

Classroom learning adopts blended learning methods to facilitate effective learning.. Learning is made student-centric through interactive discussions, class room presentations and weekly seminars. Faculty uses lectures, presentations, case studies and laboratory exercises to improve student learning. Power point presentations, discussions in the classroom, preparing assignments, projects, flip classrooms, field visits, surveys and presentation by the students have been used to support classroom teaching. Students are encouraged to develop abstract and quantitative reasoning abilities. Thus efforts are made to ensure holistic development of the student.

**2.6.2    Does the University have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?**

Yes,  Mahatma Gandhi University has clearly stated learning outcomes for each of its academic programmes.  The learning outcomes expected of each programme are clearly stated in the curriculum of the respective academic programme. A well framed course outline with aim, objectives and teaching learning activities are provided to the students before the commencement of the programme.

The Faculty members explain to the students,  the expected learning outcomes of the course, the teaching-learning methodologies, mode of examinations, conduct of student projects, societal responsibilities, career prospects etc. during the induction programme conducted at the beginning of  the course.

Planning and implementation of the lessons are done semester wise by the

faculty members keeping in view of the learning outcomes. The basic objective of the teaching learning process is to enable the students to achieve the stipulated level of knowledge acquisition and skill development as required in the syllabus.

Besides the programme outcome, the curriculum also states the learning outcome expected of each individual as specified in the aims and objectives section.

The students and staff are made aware of the institutional objective through its official publications like the annual report, news letters, official website etc. Each School takes special care to have its own specific learning outcome catering to the needs of research institutes and employment market.

### 2.6.3 How are the University's teaching, learning and assessment strategies structured to facilitate the achievement of the intended learning outcomes?

The University's teaching, learning and assessment strategies are structured in view of the larger mandate of the university. The courses are taught through an effective blending of conventional and modern  instructional strategies and resources  that make use of all ICT resources, tools etc.

Respective Schools ensure that the programme and course objectives are met through a pre-planned academic schedule involving a host of curricular and co-curricular activities. Modes of assessment involving continuous and end semester assessments are meticulously designed to appropriately test the learning outcome expected of the course and programme.

Schools update their programme curriculum regularly to keep pace with the recent development and advances in the field of study and to reflect the changing needs and demands of the society, market and industry. To equip the existing faculty members to cope with the ever-evolving curriculum, ample support, guidance, opportunities and encouragement are provided to them for updating their skill set and knowledge base. This is accomplished through faculty development programmes.

Students are made aware of the programme objectives. For instance, they have to realise that, core courses are mandatory for securing a degree. They are also made aware of the benefits of the elective courses.  Students are encouraged to develop abstract and quantitative reasoning abilities. Enrichment programmes and capacity building programmes offered by various schools have  added value to the existing programmes. To ensure holistic development, teaching-learning process is made student-centric through interactive discussions, class room presentations and weekly seminars.New innovations in teaching – learning and evaluation process like flipped class rooms, surprise tests, tests with open books, online examinations and assignments etc are also incorporated to ensure achievement of the intended learning outcomes.

The teaching, learning and assessment strategies are structured right from framing the curriculum and preparing the annual plan by the schools and boards of studies. The students are updated with the information relating to time table and the academic programme during the induction programme. Learners are assessed through the informal interaction at the end of each teaching session and doubts of the learners are cleared. Internal assessment scheme, home assignments, seminar presentations, student project reports and internal examinations as well as semester examinations are the assessment strategies structured to facilitate the achievement of the intended learning outcomes. A fool- proof internship placement system is in place through its industry linkages and it has resulted in achieving the intended goals through professional placement.

The University also has structured committees like guidance cell, placement cell, counseling cell, eco club, women cell etc attached to several schools to help the students to orient themselves in relation to specific aims.

### 2.6.4 How does the University collect and analyse data on student learning outcomes and use it to overcome the barriers to learning?

The internal and external evaluation processes are a good indicator to evaluate a student's output. The results of each semester are critically examined by the pass board course-wise as well as student-wise. Necessary changes in easing and enhancing the learning process is undertaken on the basis of student feedback. The learning outcomes are collected through the regular informal interaction in the classes, periodical tests, internal assessment, home assignments, seminar presentations, student project reports and internal examination as well as end-semester examinations.

Teachers discuss in staff meetings, the difficulties faced by the students related to language and communication skills, technology awareness, socio-cultural issues etc. These are discussed and addressed in the classrooms for the benefit of all students. In addition, the feedback taken from the students are utilized in making the necessary modifications in institutional functioning.

Slow learners are identified and counseled individually in case of specific difficulties. Staff members themselves work out the strategies suitable to overcome their barriers. The university has provision of remedial coaching for the backward students, where, areas of difficulty as per their requirement are addressed. Satisfactory and high level learners are also motivated and provided guidance to perform better. Scholarships provided by the Government,UGC and other funding agencies as well as the university definitely motivate the learners.

**2.6.5 What are the new technologies deployed by the University in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?**

The Mahatma Gandhi University encourages the use of e-learning resources along with the traditional learning resources for effective teaching and research. The university has well established central computer facility. Every teacher has been provided either a laptop or desktop to carry out his/her work. It enables the faculty members to prepare computer aided learning materials. Faculty members encourage students to use web resources for preparing study materials and proper information is supplemented to them. The Schools and hostels have round the clock internet connection.

With the help of LCD and smart classroom facility, effective teaching and learning takes place in the campus. Some of the effective technologies used by the university include:

- Smart class rooms
- Campus-wide Wi-Fi enabled high-speed internet connectivity
- 24x7 online access of course contents and other learning resources through the Open Learning Content Management System
- Access of Massive Open Online Courses (MOOCs) resources from Udacity, Coursera, etc.
- Access to digital resources like e-books, e-magazines, e-journals etc
- Access to online Educational Video and Audio Resources
- Access to more than 10000 online e-journals
- Access to other web resources like online encyclopedia, online digital libraries, portals & gateway, institutional repositories, web directories, etc.
- Access to virtual laboratories and tools
- Access to blogs, social networks, online discussion forums
- Edmodo, an interactive teaching learning platform

All these modern learning resources, tools and services have turned the conventional classrooms into 24x7 learning place.

# CRITERION III:
# RESEARCH, CONSULTANCY
# AND EXTENSION

# CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

**3.1 Promotion of Research**

**3.1.1 Does the university have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.**

Yes. There is a University Research Committee consisting of the following members.

| Sl.No | Designation |
|-------|-------------|
| 1. | Vice- Chancellor, Chairman |
| 2. | Pro-Vice Chancellor |
| 3. | Registrar |
| 4. | Member Syndicate |
| 5. | Director of Research |
| 6. | Director, College Development Council |
| 7. | Member-1* |
| 8. | Member-2* |
| 9. | Member-3* |
| 10. | Member-4* |
| 11. | Member-5* |
| 12. | Member-6* |
| 13. | Member-7* |

*Eminent Academicas Nominated by VC

Important reccomendations of the Research Committee are the following:

1. Implementation of UGC regulations
2. Award of Ph.D degree
3. Recognition of Research Centres.
4. Recognition of Research Guides
5. Renewal and Extension of Ph.D registration

In addition, the University Syndicate has a Standing Committee for policy decisions with respect to research & development. The committe consists of a Convenor and members of the Syndicate.

### 3.1.2 What is the policy of the university to promote research in its affiliated / constituent colleges?

At Present the University has approved Research Centres (for affiliated colleges and other institutions).

Affiliated Colleges as Research Centres: Number of affiliated colleges as research Centres: **40**

Institutes recognized as Research Centres: Number of Institutes (State/National) as research Centres: **46**

The University has a vibrant Directorate of College Development Council (DCDC) which coordinates the research needs of affiliated colleges. Directorate of College Development Council acts as the Coordinator for all affiliated colleges with the UGC (SWRO at Bangalore). The activities carried out by DCDC are listed below.

| Sl No | Activities | Academic years | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
| 1 | Minor Research Projects Forwarded to UGC | 60 | 78 | 295 | 425 | 373 | 77 |
| 2 | Major Research Projects Forwarded to UGC | 3 | 10 | 28 | 12 | 4 | Nil |
| 3 | Seminar Proposals forwarded to UGC | 43 | 86 | 204 | 241 | 188 | 195 |
| 4 | UGC Sponsored Seminars Certified | 48 | 63 | 85 | 61 | 122 | 84 |
| 5 | Other Seminars Certified | 12 | 15 | 2 | 4 | 1 | 2 |
| 6 | Proposals for Developmental Assistance to Colleges Forwarded to UGC | 27 | Nil | 55 | 74 | 119 | Nil |
| 7 | Proposals for Colleges with Potential for Excellence Forwarded to UGC | 5 | Nil | Nil | Nil | 2 | 9 |
| 8 | Faculty Development programme (FDP – formerly called FIP)- No of Applicants | 26 | 32 | During 12th Plan period a total number of 214 applications have been forwarded to SWRO - UGC | | | |
| 9 | Short term Programmes | | | Nil | Nil | Nil | Inter- disciplinary prog conducted for two weeks from 30th July to 12th August 2015; for the University Teachers |

**3.1.3** **What are the proactive mechanisms adopted by the university to facilitate the smooth implementation of research schemes/projects?**

a) **Advancing funds for sanctioned projects**: Funds are advanced subject to availability of funds.

b) **Providing seed money**:

An amount of Rs 100000/- has been earmarked in the University budget as project seed money.

c) **Simplification of procedures related to sanctions / purchases to be made by the investigators:**

The Principal Investigator is given complete autonomy to utilize the project amount as per the project sanction order. A seperate bank account is opened (with prior sanction of University authorities) for operations of all externally funded projects. No prior sanction is needed for purchase of equipments which is the responsibility of the Principal Investigator of the project and is done according to rules and regulations of the Kerala State Store Purchase Manual. The administrative section provides the DSIR and Excise Exemption Certificates to the Principal Investigator on submission of application with all required details. The certificate is provided within a period of one week on submission of documents. Purchase of consumables is done from vendors who have entered into rate contract with the University.

d) **Autonomy to the principal investigator/co-ordinator for utilizing overhead charges:**

Normally the overhead charges are deducted prior to transfer of funds to the project account maintained by the Principal Investigator. However, under certain conditions upto 80% of overhead charges are released to the project account.

e) **Timely release of grants:**

The project funds are normally released to the project account maintained by the Principal Investigators within a period of two weeks after the receipt of funds, in the Mahatma Gandhi University fund.

f) **Timely auditing:**

The University has an approved panel of five Chartered Accountants. The Principal Investigator of the projects are authorised to get yearly auditing of UC & SE of their projects by any one of the approved Chartered Accountants.

g) **Submission of utilization certificate to the funding authorities**

The final auditing at the time of submission of completion report is done by the Local Fund Auditor.

### 3.1.4 How is interdisciplinary research promoted?

#### a) Between/among different Departments /Schools of the university:

The schools and centres of the university collaborate very actively on joint research programmes. Joint research projects have been submitted to funding agencies on a collaborative mode between schools and centres. Student are also superviased jointly by facuty members of different schools and centres.

Recently, a new concept of convergence of different disciplines is promoted and an exclusive building called Convergence Academia Complex (CAC) is under construction at an estimate of Rs. 29 Crores. CAC will house all the Inter University and Inter School Centres having diversified programmes in order to promote interdisciplinary research.

#### b) Collaboration with national/Institutes/Industries:

Several schools have collbration with national institute and industries. Here are the details.

| Sl No. | Programme | Collaborative institute |
|---|---|---|
| **School of Behavioural Sciences** | | |
| | GFATM Project - SAKSHAM (The Global Fund to Fight AIDS, Tuberculosis and Malaria, Round 7, HIV/AIDS Counselling Programme), 2009-14 | WHO programme funded through Tata Institute of Social Sciences (TISS), Mumbai |
| **School of Biosciences** | | |
| | DBT builder programme with IIUCNN | DBT |
| | Molecular mechanism of antidiabetic activity of Costuspictus (No. 025/IBRS/KBC/2013 Dated. 11.11.2013) | Kerala Biotechnology Commission-KSCSTE- Industry Partner-Arjuna Natural Extracts. |
| | Health promoting capabilities of potential probiotic strains isolated from infant gut microflora | ICMR ( Collaborative project with Dr. Sabu Thomas, Scientist E11 as CO- PI, Rajiv Gandhi Centre for Biotechnology) |
| **School of Chemical Sciences** | | |
| | Respond project from ISRO 2016-2019 | ISRO |
| | Development of high performance rubber nano composites for tyre engineering 2007-2011 | DST-Apollo Tyres |

| | |
|---|---|
| Tuning the properties of stimuli sensitive copolymers- A step towards purification of water<br><br>2009-2012 | SERC,DST |
| High performance polymer blend from epoxy resin and PTT for aerospace application<br><br>2009-20012 | DRDO |
| Carbon nanotube filled natural rubber nanocomposites<br><br>2010-2013 | UGC-DAE |
| **School of Environmental Sciences** | |
| National Vegetation Carbon Pool – Kerala Region<br><br>2011-2013 | IIRS, ISRO |
| Nation wide Environmental Gamma Radiation Monitoring Using TLDs (A National Mission programme)<br><br>2014-2016 | BRNS |
| Investigation of the spatial distribution<br><br>of uranium and associated water quality parameters in five central districts of Kerala<br><br>2015 onwards | BRNS |
| **School of International Relations and Politics** | |
| Paddy Culture in Kuttanad, Kerala: Folk Traditions, Rituals and Festivals<br><br>2012-14 | Indira Gandhi International Centre for the Arts, New Delhi. |
| MGNREGS Assessment Evaluation Study- Eranakulam District.<br><br>2013-15 | State Institute of Rural Development, Govt of Kerala. |
| MGNREGS Assessment Evaluation Study- Pathanamthitta District. 2013-15 | State Institute of Rural Development, Govt of Kerala. |
| MGNREGS Assessment Evaluation Study- Kollam District. 2013-15 | State Institute of Rural Development, Govt of Kerala. |
| **School of Pure And Applied Physics** | |
| National pooled funds utilized for the promotion of teaching & research in Astronomy & Astrophysics | MoU with (IUCAA, Pune) |
| National pooled funds utilized for science development for the Square Kilometer | MoU with Square Kilometer Array India |

|  | Array | Consortium |
|---|---|---|
| **School of Social Sciences** | | |
|  | Rehabilitation Plantation: Socio Economic sustainability', (2005) | Project Sponsored by Rehabilitation Plantation Corporation, Punalur |
|  | Evaluation of Ecodevelopment Programme at Periyar Tiger Reserve), (From March, 2009 April, 2011) | Periyar Foundation, Periyar Thekkady. |
| **School of Tourism Studies** | | |
|  | "Social Media as an influencer among foreign tourists visiting India" 2014-16 | Indian Institute of Tourism and Travel Management and Ministry of Tourism, Govt. of India |
|  | Discover Kottayam 2014-16 | District Tourism Promotion Council (DTPC), Kottayam |
| **International and Inter University Centre for Nanoscience and Nanotechnology** | | |
|  | Dept of Materials Engineering, Indian Institue of Science (IISc), Banglore | |
|  | Appollo Tyres, MRF tyres | |
|  | Rubber Research Institute of India, Kottayam, Kerala, India - 686 009 | |
|  | NIIST, Trivandrum, Kerala, India - 695 012 | |
|  | Central Power Research Institute, Bangalore, India - 56094 | |
|  | Vikram Sarabhai Space Research Centre, Trivandrum, India | |
|  | Rubber Technology Centre, Indian Institute of Technology, Kharagpur, India | |
|  | COMPTECH, Indian Institute of Technology, Chennai | |
|  | Polymer Chemistry Division, National Chemical Laboratory, Pune, India | |
|  | Sree Chitra Thirunal Institute of Medical Sciences and Technology, Trivandrum, Kerala, India | |
|  | Central Institute of Plastic Engineering and Technology, Guindy, Madras, India | |
|  | of Polymer Science & Rubber Technology, Cochin University of Science & Technology, Cochin - 22, Kerala, India | |
|  | Indian institute of Chemical Technology, Hyderabad, India | |
|  | Laboratory of Condensed Matter Physics, Department of Physics, University of Rajasthan, Jaipur, India | |
|  | Reliance Industries Limited, Maker Chambers IV, 3rd Floor, 222, Nariman Point, Bombay | |
|  | Elastomers Technical Services, Madurai, India | |
|  | High Polymer Engineering Division, Department of Chemical Engineering, Indian Institute of Technology, Madras, India | |

| | Department of Chemistry, Karnatak University, Dharwar, Karnataka, India |
|---|---|
| | Department of Civil Engineering, Indian Institute of Technology, New Delhi, India |
| | Common Facility Service Centre, Industrial Estate, Changanacherry, Kottayam, Kerala, India |
| | Department of Physics, University of Mysore, Mysore |

**Inter University Centre for Biomedical Research & Super Specialty Hospital**

| IUCBR and Bangur Institute of Neurology, Kolkata | Bangur Institute of Neurology, Kolkata |
|---|---|
| IUCBR and Manovikas Kendra, Kolkata | Manovikas Kendra, Kolkata |

**Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)**

| **Small scale water filtration unit using clay.** | IIT, Jodhpur. |
|---|---|

**Inter University Centre For Disability Studies**

| Empowerment of Persons with Disabilities (PWDs) through Community Integration" | " Santhigiri Rehabilitation Institute, Vazhithala P.O,  Thodupuzha- 685583 |
|---|---|
| "Skill development training programme to the persons with disabilities" | Theeradesa Raksha Social Welfare Society (TRSWS), Reg. No. 566/2001, Sidco building, Beach Road, West Hill P.O, Calicut- 673005. |

**Advanced Molecular Materials Research Centre (AMMRC)**

| Propellant Burn rate modifiers 2016-18 | ISRO |
|---|---|

**KN. Raj Centre for Planning and Centre-State Relations (KNRC)**

| Conducting Training programmes 2016-17 | Collaboration with Gulati Institute of Finance and Taxation, Trivandrum; |
|---|---|
| Participation in training programmes 2015-16 | Institute for Studies in Industrial Development, New Delhi |

**c) Collaboration with international institutes / industries:**

| School of Chemical Sciences (SCS) | | | |
|---|---|---|---|
| 1 | Hierarchical bio composites from Isora fibres and unsaturated polyester | 2014-2016 | DST-Austria |
| **School of Biosciences** | | | |
| 2 | Dr. J.G.Ray received Prometeo Sabios Fellowship of Ecuador Government to conduct collaborative studies at Ecuador with professors in their university. | | Fellowship of Ecuador Government |
| **School of Environmental Sciences** | | | |
| 3 | Long-Term Monitoring of Kongsfjorden System of Arctic region for climate change studies | 2015-2016 | ESSO-NCAOR, MoES |
| 4 | Long Term Environmental Monitoring of Fjord Ecosystems, Ny-Ålesund (Arctic) | 2016-2017 | ESSO-NCAOR, MoES |
| 5 | Development of Self-contained, PV powered domestic toilet and waste water treatment system. | 2014-2015 | California Institute of Technology, USA |
| 6 | Microbial Fuel Cells | 2014 | University of West of England (UWE), Bristol, UK |
| 7 | An Interdisciplinary and Community Oriented Innovative Approach | 2012-2015 | UGC / Obama-Singh 21st century knowledge initiative/ with Brown University, Duke University and Plymouth State University |
| 8 | Pulse radiolysis of biomolecules | 2010-2012 | Indo-French ARCUS Project |
| **School of International Relations and Politics** | | | |
| 9 | Academic Exchanges | 2010 | Jinan National Uinversity China |
| | | | Institute of Political |

| | | | Studies, Renne, France. |
|---|---|---|---|
| | | | Institute of Political Studies, Bourdeau France. |

**School of Tourism Studies**

| 10 | Project for Mango Languages | 2011 – 12 | Mango Languages, USA |
|---|---|---|---|

**International and Inter University Centre for Nanoscience and Nanotechnology**

| 11 | Nano biomaterials water purification | 2016-17 | Researcher Links scheme offered within the Newton Fund, the British Council & Royal Society of Chemistry, London |
|---|---|---|---|
| 12 | Cross-linked polyethylene Nano composite for cable insulating application | 2016-17 | University of Mara, Malaysia |
| 13 | The Centre has collaboration with following industries.<br>1. General Cables, USA, (completed)<br>2. Surface Treat, Czech Republic, (Running) | | |

**Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)**

| 14 | Nanofiber structures for efficient enzyme immobilization in membrane applications. | 2016-2019 | Network project between Department of Energy Conversion and Storage, Technical University of Denmark (DTU) |
|---|---|---|---|
| 15 | Advanced membrane processes for water treatment | 2016 | Ben-Gurion University,Israel |

| Advanced Molecular Materials Research Centre (AMMRC) | | | |
|---|---|---|---|
| 16 | "Study of fundamental Chemical and Physical properties of magnetic ionic liquid nanofluids". collaboration with Department of Physics, Rzeszow University of Technology, Poland | 2015-17 | DST, Govt. of India & (funding agency in Poland) |

**3.1.5 Give details of workshops/ training programmes/ sensitization programmes conducted by the university to promote a research culture on campus.**
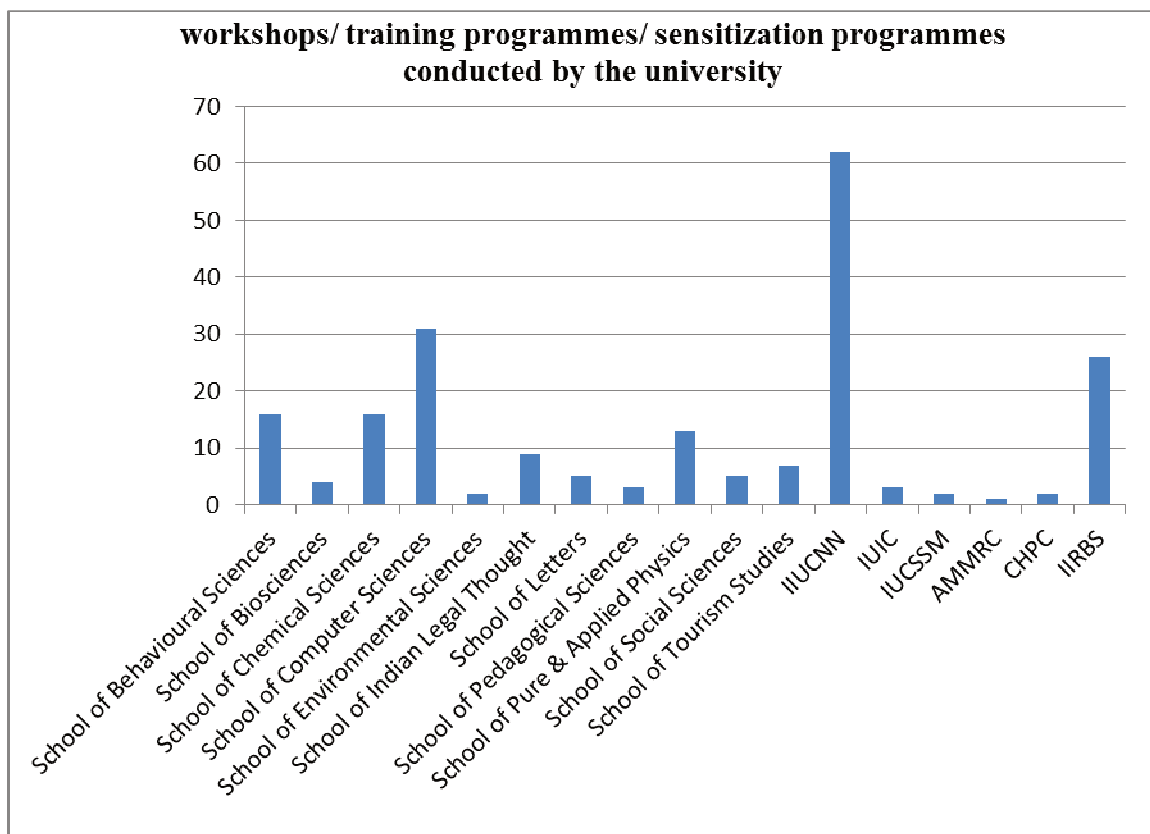


| Name of School/ Department | Details of workshops/training programmes conducted |
|---|---|
| **School of Behavioural** | 1. International Workshop on Building up Research, 11-13, August, 2013.  Convenor -Ms.Rincymol Mathew) |

| Sciences | 2. Symposium on Enhancing Quality of Research. 25.6.2015 (Convenor – Dr. P. S.Sukumaran) |
| --- | --- |
|  | 3. Workshop on Research Methodology and Statistics. 16-18, September 2016 (Convenor - Dr. P. T. Baburaj) . Organized through IUCDS. |
|  | 4. Two Weeks Orientation Workshop on Braille (English & Malayalam) for General School Teachers in Collaboration with Regional Centre of National Institute for the Visually handicapped, Chennai. 25.09.2015 to 10.10.2015 (Convenor – Dr. K. M. Mustaffa) |
|  | 5. Workshop on Rorschack- Psychological testing. 28-29, September 2015 (Convenor – Dr. Rajeevkumar N.) |
|  | 6. Workshop on Learning Disability. 15.02.2016 (IUCDS ) (Convenor – Dr. P. T. Baburaj) |
|  | 7. Workshop on Cognitive Behaviour Therapy. 22-24, March 2013. (Convenor – Dr. Rajeevkumar N.) |
|  | 8. Empowering Teachers in Mentoring and Student Counselling. 29-31, March 2016. (Dr. rajeevkumar N). |
|  | 9. National Seminar on Management of Learning Disabilities. 22.03.2011. (Convenor – Mr. Rajesh E.) |
|  | 10. Workshop on Learning Disability. 28-29, June2016 (Convenor – Dr. P. T. Baburaj) |
|  | 11. Workshop on Curriculum Revision. 28-29 April 2016. (Convenor – Dr. P. S. Sukumaran) |
|  | 12. Workshop on BEd Special education Curriculum Revision 0n 23.04.2015 (Convener Dr. P. S. Sukumaran) |
|  | 13. Workshop on M.Ed Special education Curriculum Revision 0n 24.06.2015 (Convener Dr. P. S. Sukumaran) |
|  | 14. Seminar on National Trust Act, 1999 and Legal Guardian ship for the parents of individuals with Autism Cerebral palsy mental retardation and multiple |

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| | disabilities, 15.12.2014(Convener Dr. P. S. Sukumaran) |
| | 15. Orientation Course in Indian Sign Language, 11<sup>th</sup> – 13<sup>th</sup> November 2015(Convener Dr. Muhammad Mustaffa) |
| | 16. Refresher Course on Braille 26.8.2015 – 10.09.2015(Convener Dr. Muhammad Mustaffa) |
| **School of Biosciences** | 1. Hands on workshop on DNA Barcoding of microbes.on 30.3.2014. Convener, **Dr.Jisha.M.S** |
| | 2. Workshop on "**Molecular Phylogenetics in Microbiology**"26.9.2012-28.9.2012Convener Dr.Jisha.M.S |
| | 3. One day Workshop for Teachers of affiliated Colleges in connection with PG Biotechnology Syllabus Revision -2015. |
| | 4. National Training cum workshop on molecular docking and drug designing 23-25 March 2015 organized by School of Biosciences, Mahatma Gandhi University and BioDiscovery Group Life Sciences,, conducted on 23-25 March 2015. Convenor **Dr.Prakashkumar B** |
| **School of Chemical Sciences** | 1. National work shop on "Fundamentals and applications Material science" organized in association with SRIBS(KSCSTE) on march 4-6 held at Kottayam |
| | 2. National Workshop on "NMR Spectroscopy", 10<sup>th</sup> - 13<sup>th</sup> September 2014 |
| | 3. Workshop on High Performance Liquid Chromatography (HPLC), 4<sup>th</sup>& 5<sup>th</sup> November 2013. |
| | 4. Workshop on "Computational Chemistry", May 28<sup>th</sup> - 31<sup>st</sup>, 2012 |
| | 5. Workshop on "Basic Principles and applications of Computational Chemistry", May 23<sup>rd</sup> - 27<sup>th</sup>, 2011 at IIRBS |
| | 6. DST-PURSE sponsored Workshop on Frontiers of |

Spectroscopy and Microscopy, Kottayam, September 10-12, 2012 (participation)

7. National Workshop on Advances in Instrumental Techniques for Nanomaterial characterization on 7-8 March, 2014 at Kottayam (Participation)

8. The School has hosted the interactive session on **Indian Space Mission** with Dr. K. Radhakrishnan, former Chairman, ISRO

9. Invited lecture **Journey to Mars** by Dr. K. N. Ninan, Former Deputy Director, VSSC, Thruvananthapuram

10. National Colloquium on Recent Trends in Organic and Bioorganic Chemistry on 24th October, 2013 at Calicut University, Calicut, India –KSCSTE –G. Anil Kumar and Prof. E. Purushothaman (Course Coordinators)

11. National Colloquium on Recent Trends in Organic and Bioorganic Chemistry on 18-20 July, 2014 at Kottayam, India-- KSCSTE –G. Anil Kumar (Course Coordinator)

12. Workshop on Quantum Mechanics for M Sc Chemistry students and faculty on 20-21 June 2015 at Kottayam-- KSCSTE –G. Anil Kumar (Course Coordinator)

13. Workshop on Group Theory for M Sc Chemistry students and faculty on 30 Oct-1 Nov 2015 at Kottayam -- KSCSTE –G. Anil Kumar (Course Coordinator)

14. Workshop on Stereochemistry for M Sc Chemistry students and faculty on 8-10 January 2016 at Kottayam -- KSCSTE –G. Anil Kumar (Course Coordinator)

15. National Colloquium in Organic and Bioorganic Chemistry held at Kottayam on 29-31 July 2016 -- KSCSTE –G. Anil Kumar (Course Coordinator)

16. National Colloquium on Catalysis: Emerging Trends-held at Kottayam on 30 Sept-2 Oct 2016-- KSCSTE – G. Anil Kumar (Course Coordinator)

| School of Computer Sciences | **1. Interface –Annual Technical Meet ,**  a National level IT Fest organized by the School in association with Computer Science Students' Association of the School, Every December. |
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| | 2. Workshop on **"Tour Making",** Mr.Aravind Paranjpye, Officer for Science Popularization,IUCAA, Pune, October 18-19, 2010. |
| | 3. Workshop on **"FOSS and BOSS",** Smt. Saleena H, Senior Technical Officer, CDAC, Trivandrum, December 17, 2010. |
| | 5. Workshop on **"e-Astronomy and Statistics",** organized bySchool of Pure and Applied Physics in association with School of Computer Sciences, Mahatma Gandhi University, Kottayam, Kerala, January 17-19, 2011. |
| | 6.  Workshop on **"MCA Syllabus Revision",** Mahatma Gandhi University, 24-25 March 2011. |
| | 7. Workshop on **"Computer Networking Leading to CCNA Certification",** March 16, 2011. |
| | 8. **Workshop on "Teaching Learning Process",** by Prof. (Dr.) R. Vijayakumar, HOD, School of Computer Sciences, Mahatma Gandhi University, Kottayam, Kerala,  2011. |
| | 12. Workshop on " Open source software " was organized by the School during 2012 , inaugurated by Dr. Iqbal , former Vice-chancellor of Kerala University. |
| | 13. National level technical talk on "NP Complete Problems and High Performance Computing" as part of Interface2012 in Dec, 2012. |
| | 14. A one day ISTE e-Workshop on "Creative Teaching" at School of Computer Sciences,  October 2013. |
| | 17 . Spoken Tutorial project(an initiative of NMEICT, MHRD, Govt. of India) in the University, a training session at School of  Computer Science and |

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| | Engineering/Computer Applications/IT institutions under M G University on 27.08.2014, at the seminar hall of School of Computer Sciences. **Mr. Swapnil More**, Training Coordinator, Spoken Tutorial (MHRD, NMEICT) IIT Bombay. |
| | 21. A workshop on 'Training A-view System' by A-View team of Amrita University under the initiative of NMEICT, Ministry of Human Resource Development, Govt. of India, on 23$^{rd}$ February 2015. |
| | 22. A workshop on 'Scilab' by the Spoken Tutorial Project, through "Talk To A Teacher" project of IIT Bombay on 25/3/2015, funded by National Mission on Education through ICT, MHRD, Govt. of India. |
| | 23. One day workshop on i. 'Principles and Practices of a Good Professional and Personal Life' and ii. 'How to face an Interview' on 19/08/2015. |
| | 25. Two-day National Workshop on "**India's First Cloud Computing Championship – IFC3 INDIA" in collaboration with Neuromancers, IIT Bhubaneswar and Infero, Scitech Council IIT Hyderabad** from 9.02.16 to 10.02.16. Our School served as a zonal centre. |
| | 26. 3 day workshop on "Network Simulator 2" (19.11.15 to 21.11.15) for faculty members as well as M Sc/M Tech and Research students of the School. |
| | 29. A workshop on **"Cloud Solutions and Implementation"** for faculty and technical staff of the School on 28.06.2016 by Mr. Saneesh Kaniyath, Sr. Technical Consultant, Smartsoft, Cochin. |
| | 30. Three day **National level workshop on "Data Analytics and Machine Learning Using R"** June 15-18, 2016 as part of Capacity Building and Knowledge Upgradation for faculty members and M Sc/M Tech/M Phil and Research students of the |

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| | School , in collaboration with **Scientific Computing Solutions, Chennai**. |
| | 31.  Three day **National level workshop on "Data Analytics and Machine Learning Using R"** June 15-18, 2016 |
| **School of Environmental Sciences** | 1.  OSI workshop on "Membrane technology" in collaboration with Duke University, August 2015. |
| | 2.  Nineteenth National Symposium on Environment (NSE-19) , December 11-13, 2014 at School of Environmental Sciences, MG University. |
| **School of Indian Legal Thought** | 1.  A National Seminar on Access to health Care in Modern Era :Changing Dimensions, was organised by the School on 13-15th March,2016[7] National Moot Court has been successfully organized. |
| | 2.  Dr. Ambadkar Memorial Lecture on 29th& 30th March 2012 on the topic **Access to Health Care in India: Implications of Patent Laws has been delivered by** Dr.**N.S. Gopalakrishnan** (Prof. HRD Chair on IPR and Director, Inter University Centre for IPR Studies, CUSAT. |
| | 3.  8th National Moot Court  competition has been successfully organized during 14-16th Feb,2013. |
| | 4.  9th National Moot Court has been conducted during February 20th and 22nd of February 2014. |
| | 5.  Dr. Ambadkar Memorial Lecture on 8th March 2014 on the topic of **Constitutional Dharma and Contemporary Challenges** has been delivered by R. Venkatramani (Senior Advocate of Supreme Court of India & Member of Law Commission of India). |
| | 6.  Legal literacy mission in various schools and colleges in Kottayam district |
| | 7.  Dr. Ambadkar Memorial Lecture on 29th February 2015 on the topic of**Judicial Activism and Judicial Restraint**  has been delivered by Hon. Dr. Justice B.S. Chauhan (Chairman Cauvery Water Dispute Tribunal and Former Judge of Supreme Court of India) on 29th |

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| | February 2015 on the topic of Judicial Activism and Judicial Restraint. |
| | 8. Dr. Ambadkar Memorial Lecture on on 30th March 2016on the topic of **New Constitution Challenges** was delivered by Prof Dr Sivakumar,Prof Indian law Institute,New Delhi on 30th March ,2016. |
| | 9. Hon'ble Justice V.Eswariah, Chairperson, National Commission for Backward Classes and Former Chief Justice High Court of Andhra Pradesh delivered a lecture on "Free Press and Independent Judiciary" on 18.12.2015 |
| **School of Letters** | 1. Workshop on Malayalam Computing in August 2015. |
| | 2. Workshop on Poetry, drama, and story in September 2012 |
| | 3. Workshop on Knowledge text translation in collaboration with CIIL, Mysore from 13-16 February 2013 |
| | 4. Workshop on reading ancient Malayalam scripts (*vattezhuthu, kolezhuthu, grandhaksharam etc.*) in 2014 |
| | 5. Translator's Orientation Programme from 13 to 16 February 2013. |
| **School of Pedagogical Sciences** | 1. Three day Workshop on Research Methodology from 12th to 14th August 2013 |
| | 2. One day Lecture on Research Methodology by Professor (Dr.) M. A. Sudhir, Gandhigram Rural University, on 7th December 2014 |
| | 3. One day Lecture on Research Methodology by Professor (Dr.) M. A. Sudhir, Gandhigram Rural University, in March 2016 |
| **School of Pure & Applied Physics** | 1. National Workshop on Mathematics for (Astro) Physics, M G University Kottayam, Sept 27 -Oct 01 2011 MGU & IRC, Kochi |
| | 2. National workshop on Materials characterisation by diffraction Methods, M G University Kottayam, |

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| | February 24-25, 2010 |
| | 3. Workshop on Developments in Crystallography, SPAP, 16 - 17, December 2014. |
| | 4. Inculcate Science Propagation Program by Govt. of Kerala, 27 Sep 2014 |
| | 5. Lecture 5: Frontier Lecture Series 27th Sept 2011 'The Relation Between Mathematics & Physics' by Prof. N. Mukunda (IISc & Vice President Indian Academy of Sciences) |
| | 6. Workshop on Fourier Transforms in (Astro)Physics Feb 13 -15 2013 |
| | 7. September 28 2015 Prof Dileep Karanth, University of Toledo, Erudite Lecture on Pseudopotential studies of nanowires and nanorings |
| | 8. Lecture on "Radio Astronomy" by Jagadheep Pandiyan Indian Institute of Space Science & Technology, Thiruvananthapuram 20 November 2015 |
| | 9. "Radio Astronomy Data & Its Analysis" Lecture by Rabi Akkiba Angiras, Member SKAIC Science Working Group 11 Jan 2016]\ |
| | 10. Einstein Lecture Series -Lectures by Prof Bala Iyer, Council Chair, IndIGO Consortium, ICTS TIFR 2nd Feb 2016 |
| | 11. Lecture by Prof John Philip, Head, SMARTS, IGCAR Kalpakkam, on 'Light and the Nano World' 25th Feb 2016 |
| | 12. Infosys Science Foundation Lecture by Prof G Ravindra Kumar, Winner Infosys Prize in Physics on "Extreme Light Extreme States" 29 March 2016 |
| | 13. Lecture by Dr A M Vinodkumar Calicut University on "Fusion : Quest for Super Heavy Elements" 6th April 2016 |
| **School of Social Sciences** | 1. Co-ordinated three University level (2010,2011&2012) and two state level ACQUIRE UG Scholarship programme funded by Govt. Of Kerala (2010,2011). |
| | 2. Co-ordinated two state level PG Workshops |

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| | (AQUIRE) funded by Govt. Of Kerala(2011-12). |
| | 3. Three Scholar in Residence Programmes funded by the Higher Education Council. (Gayathri Spivak, Romila Thapar(2013) and Partha Chatterjee,2013). |
| | 4. Five day Social Science Methodologies Workshop delivered by Prof. Ahmed Nissar, 2015. |
| | 5. Five day workshop on Assistive Technologies for Visually Impaired Students doing Social Sciences at ABILITY Station of SSS |
| **School of Tourism Studies** | 1. One day Workshop on "Zotero" – Library Management Software organized by Kerala Library Association, Kottayam region and School of Tourism Studies in August 2014 |
| | 2. One day workshop on "Mendeley" – Library Management Software organized by Kerala Library Association, Kottayam region and School of Tourism Studies on 28th April 2016 |
| | 3. Two day National Level Workshop on "Contemporary Research Methods and Software Packages" organized by School of Tourism Studies on 25th and 26th May 2016 |
| | 4. One day seminar on "How to avoid Academic Plagiarism" organized by Kerala Library Association, Kottayam region and School of Tourism Studies on 30TH May 2016 |
| | 5. A workshop on 'Discover Kottayam' (tourism product branding) along with DTPC – Kottayam. |
| | 6. One day seminar on Literary Tourism with DarshanaAcademy and DPC, Kottayam. |
| | 7. Two day National Level Workshop on **Research Methodology** and SPSS software in May 2016 |
| **Name of the Centre** | **Details of programme conducted** |
| | **International, Inter University & Inter School Centers** |

| IIUCNN | 1. National Workshop on Hybrids of Nanotubes, Graphene and Dendrimers, Nanotechnology Platforms, April 2013. |
|---|---|
| | 2. National Workshop on Advances in Nanoscience and Nanotechnology, March 23, 2013 |
| | 3. National Workshop on Advances in Hybrid Materials, March 2013. |
| | 4. Workshop on HRTEM Imaging, Mahatma Gandhi University, 2012 |
| | 5. National Workshop on "Synthesis, Characterization and Applications of Nanomaterials"-NWNM- 2010 held during 12-14 January 2010 |
| | Sensitization Programmes |
| | 1. Dr. Habeeb Muhammed MA, (Germany)."Hierarchical Gold-Copper Chalcogenide Core Shell Nanoparticle Clusters with Selectable NIR Metal/Semiconductor Plasmon Resonances".31.10.2016 |
| | 2. Dr. Shiju Raveendra University of Amsterdam, Netherlands."Heterogenous catalysis and its Applications".20.10.2016 |
| | 3. Prof.Dr. Clement Sanchez(University of Pierre and Maria Currie, France Applications of Hydridmaterials03.10.206 |
| | 4. Dr. Vivek K Srivastava and Dr. Ganesh C. Basak ,Reliance industries, Vododara, GujaratRecent trends in rubber technology01.10.2016 |
| | 5. Prof. Dr. Wim Dehaen,University of Leuven, Belgium."Hyper branched Polymers based on Isatin and Electron Rich Arenes: Synthesis and Applications".25.07.2016 |
| | 6. Camille Thevenot,University of de Lorraine in Nancy,France,A piezoelectric polymer material P(VDF-TrFE): elaboration, characterization and applications16.07.2016 |
| | 7. Dr.Kajal Ghosal,AssistantProfessor, Dr. B C Roy |

| | College of Pharmacy and AHS, Durgapur, India (currently affiliated to CEITEC,MU, Czech Republic)Electrospinning: Can polymeric films be plasticized without Plasticizers".14.07.2016 |
|---|---|
| | 8. Prof. Dr. Dinesh Kumar Kotnees, Patna"Preferentially fixing nanoclays in the phases of incompatible polymer blend using thermodynamic approach and its effect on physico mechanical properties"08.07.2016 |
| | 9. Dr Nishar Hameed,Swinburne University of Technology, Australia" Carbon Fibre – the Material of the Future".18.06.2016 |
| | 10. Dr. Sami Hage-Ali ,Associate professor with the micro- nanosystems group (MNS) at Institute Jean Lamour, France"Applications of silicone based elastomers to flexible radio frequency devices and sensors".18.06.2016 |
| | 11. Dr.Rosana Maria Assuncao Birth, Institute of the Federal University of Uberlandia, BrazilPhysico chemical properties of starch NR-blends10.06.2016 |
| | 12. Dr. Daniel Pasquini, Institute of the Federal University of Uberlandia, Brazil Nan crystals  from stanch and cellulose on 08.06.2016 |
| | 13. Prof. Dr. Zakiah Ahmad(Director,Institute for Infrastructure Engineering and Sustainable Management,Mara) from MalaysiaNew frontiers of material science in civil engineering31.05.20116 |
| | 14. Prof. Dr. JosesphArul of the University of Laval, Canada Preservation fresh fruits and vegetables01.04.2016 |
| | 15. Prof. Nathalle Gontard (Professor, INRA Research Director,Food & Packaging Scientist) from France,Next generation of  packaging to increase full system sustainability.28.03.2016 |
| | 16. Prof. Florian Mormann, MD, PhD,Department of Epileptology, University of Bonn, Germany"The Building Blocks of Memory-The Marilyn Monroe Neuron"19.02.2016 |

| | 17. Prof. Dr. Joanna Ewa Izdebska Warsaw University of Technology, Poland Printing On Polymers08.02.2016 |
| | 18. Prof  Francis Lewu, South AfricaCrop and medicinal species conservation, production and utilization20.01.2016 |
| | 19. Dr. Aji.P.Mathew,Professor, Luleå University of Technology, SE 97187, Luleå, Sweden,Nanocellulose Research12.01.2016 |
| | 20. Dr Apala Majumdar,Associate, Professor (Reader) and EPSRC Career Acceleration Fellow,, United Kingdom,Problems in nonlinear elasticity, colloidal systems and nanoparticles systems.08.12.2015 |
| | 21. Dr. K.I. Suresh, Polymers & Functional Materials Division, CSIR-Indian Institute of Chemical Technology, Hyderabad) on the topic"The Emulsion Polymerization :The Green Approach to Functional Polymers"01.12.2015 |
| | 22. Dr. Venkata Gopal Reddy Chada Chief Manager-Technology), Asian Paints,Paints and Colours14.09.2015 |
| | 23. Dr. Gregor Filipič from Slovenia ,Plasma for controllable surface modifications and nanosynthesis,24.08.2015 |
| | 24. Dr.Vinayan B P,Helmholtz Institute Ulm, Karlsruhe Institute of Technology, Germany Development of suitable electrolyte for metal sulfur battery, fabrication of high capacity and long cyclic stability sulfur electrode materials and different electrochemical phenomenon within this system.09 .07.2015 |
| | 25. Dr. Jacob John,Impact of Globalization on National and Internationals Affairs.22.06.2015 |
| | 26. Prof .Vijaya Mohanan Pillai Director, CSIR-CECRI , Central Electrochemical Research Institute, Karaikudi-630003, Tamil Nadu, India ,Nanomaterials for Energy Applications 30.04.2015 |
| | 27. Dr. Praveen G. L (University of Kerala) on the topic "Nanocomposites for Biomedical |

| | Applications"29.04.2015 |
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| | 28. Volker Ribitsch (University of Graz. Austria) 21.04.2015 |
| | 29. Mohamed Mehdi CHEHIMI Research Director at French CNRS,Leader of the Surface & Interface research team,Université Paris, France 06.03.2015 |
| | 30. Dr. Maciej Jaroszewski(Head of High Voltage Laboratory,Wroclaw University of Technology, Poland),Impedence Spectroscopy30.01.2015 |
| | 31. Prof. Suryasarathi Bose,(IISC, Bangalore)26.01.2015 |
| | 32. Prof. Benjamin S Hsiao (Department of Chemistry, Stoney Brook University, New York)"Breakthrough Water Purification Technologies based on Nanofibrous Membranes"20.01.2015 |
| | 33. "Prof. (emerit.) Dr. Werner Mormann, Universität Siegen" Ionic liquids and cellulose – a perfect green combination11.12.2014 |
| | 34. AASHISH ROY( Postdoctoral Fellow, Department of Materials EngineeringIndian Institute of Science) Conducting polymers for Sensor applications19.11.2014 |
| | 35. Prof. Renata Dantas, University of Campinas, Sao Paulo, Brazil"Ozonation for water and waste water purification"1.10.2014 |
| | 36. Prof. P.M.G.Nambissan, Saha Institute of Nuclear Physics Kolkata" The Indian legacy of the evolution of science"17.09.2014 |
| | 37. Dr.Rajesh A. Shenoi, University of British Columbia, Vancouver BC, Canada"Designing multifunctional dendritic polymers for macromolecular therapeutics"22.08.2014 |
| | 38. Dr. Suresh.S. Pillai of Environmental Nanotechnology Division, Institute of Technology, Sligo, Ireland,"Nano materials for Environmental Application"13.08.2014 |
| | 39. Dr.T.Sidhu, University of Ontario Institute of |

| | Technology,Canada,Research Opportunities at University of Ontario Institute of Technology, Canada"31.07.2014 |
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| | 40. Dr. Ali Kareem al-lami, Misan University, Iraq "Preparation and Mesomorphic characterization of supramolecular hydrogen bonding dimer liquid crystals"24.07.2014 |
| | 41. Dr. Salim Albukhaty Transfection of NSCs Neural Stem Cells by BDNF gene using Nano Carrier System"22.07.2014 |
| | 42. Dr.Bharath Rajaram –Application Scientist –TA USA Recent Trend in Rheological Characterization using Rheometer & DMA18.07.2014 |
| | 43. Dr. Burkhard Fechner, Coherent GmbH on"Recent trends in Excimer lasers in PLD and Nano applications"15.07.2014 |
| | 44. Dr. Chaitanya Lekshmi Indira,  Associate Professor, Department of Chemistry, CMR Institute of Technology, Bangalore,"Nanoscale Heterostructures: Material Design & Functional Property Understanding for Nanoelectronic Applications"20.06.2014 |
| | 45. Dr. Maya Padivattathu Multiscale Material Modelling- Approach and Application07.04.2014 |
| | 46. Dr. Abjith Saha , UGC- DAE Kolkata Centre27.03.2014 |
| | 47. Prof. Tamio EndoMie University, Japan"Fabrication of La(Ba,Sr)MnO3/ZnO Heterostructures and Electrical Junction/Switching Characteristics"25.03.2014 |
| | 48. Dr. A. V. Ravikumar,Indian Institute of Plasma Research"Applications of Accelerators"14.03.2014 |
| | 49. Dr. Chan Chin Han,University Technology MARA, Malasia"Natural Rubber based polymer blends: Thermal and Mechanical properties and morphologies."28.02.2014 |
| | 50. Dr. Tamilselvan, Institute of Chemistry,Division of Surface and Interface Science, University of Graz,, |

Austria,"Advanced polysaccarides Composites"25.02.2014

51. Dr. Arup Chandra, Apollo Tyres 22.02.2014

52. Dr. Suresh. G. Adwani, Associate Director, Center for Composite Materials, University of Delaware, USA,Multi-scale Modeling and Simulation of Composite Manufacturing Processes"28.01.2014

53. G S Murthy (GM, Forevision Instruments, Hyderabad) Talk on AFM 21.01.2014

54. Mr. Shyam Panamoottil,,Centre for Advanced Composite Materials (CACM), Auckland, New Zealand"Multiscale modelling to predict the failure behaviour of flax-fibre composites from fibre, matrix and interface properties"27.12.2013

55. Dr.Nguyen Van Son "Dispersion of nanoparticles in solution"01.08.2013

56. A K Sinh, Anton Paar, India "Rheology and its applications"25.06.2013

57. Prof. (Dr) C M. Narayan,Professor of Chemical Engineering, National Institute of Technology, Durgapur,India"Biodiesel Synthesis from Micro-Algae oil"22.06.2013

58. Dr. Shams Khwaja,Adjunct Professor of Law, Constituitional Law Lab, USA"Discovering a Road Map for Nanotechnology law and Regulation for India"20.06.2013

59. Dr. Ramesh,"NMR of Carbon Skeleton"17.06.2013

60. Dr.Achutha Prabhu "Irreversible aggregation of patchy colloidal particles:A computer simulation study"19.06.2013

61. Dr. Rajan Babu The Ohio State University U S A)"Asymmetric Catalyzed Reactions of Alkenes and Small Ring Compounds"18.05.2013

62. Dr. Aji P Mathew,Division of wood and Bionanocomposites, Lulea university, Sweden Bionanocomposites 06.07.2012

| IUIC | 1. National Workshop on Frontiers of Spectroscopy and Microscopy-2012 |
|------|-----------------------------------------------------------------------|
|      | 2. National Workshop on Mass Spectrometry-2013 |
|      | 3. National Workshop on Mass Spectrometry and Raman Microscopy,NWMR-2015 |
| IUCSSM | 1. International ensemble on science of Music was organized during 23-27 September 2015 at Kottayam |
|        | 2. Arranged an invited talk by G.S. Paul on the topic"Mathematical analysis of Swaras in Octave" on 30-03-2016 |
| AMMRC | 1. National workshop on Fundamentals and applications of Material Science in collaboration with KSCSTE, Trivandrum in March 2016 |
| CHPC | 1. Conducted Computer Training Programme in Linux to teaching and nonteaching staff of the University. The training includes, Ubuntu OS, Writer, Calc and Internet. |
|      | 2. 13 batches with 30 participants each were provided training in computers. |
| IIRBS | 1. Workshop on Maingroup and Organometallic Chemistry on October 24 – 26,2016 |
|       | 2. One day International Symposium on Concurrent methodologies in Organic Synthesis - in  honour of Prof. Ei-ichi Negishi(2010 Chemistry Nobel Laureate, Purdue University , USA) on 13th February 2016 |
|       | 3. National Workshop on "NMR Spectroscopy", 10th - 13th September 2014. |
|       | 4. Lecture series on "Liquid Chromatography", 9th - 18th December 2013. |
|       | 5. Workshop on High Performance Liquid Chromatography (HPLC), 4th & 5th November 2013. |
|       | 6. Lecture on "High Performance Liquid chromatography (HPLC),4th - 12th November 2013. |
|       | 7. Workshop on High Performance Liquid Chromatography (HPLC), 30th April – 2nd May |

|  | 2013. |
|  | 8. Workshop on "Nuclear Magnetic Resonance: Theory and Application", 24th - 26th January 2013. |
|  | 9. Lecture on "Boron based organic chemistry",7th - 19th January 2013. |
|  | 10. Lecture on "Boron and Gadolinium Neutron Capture Therapy for cancer treatment",16th-17th December 2012. |
|  | 11. Lecture on "Organometalic and Bio-inorganic Chemistry",10th-14th December 2012 |
|  | 12. Lecture on "Structural Topology Optimization with applications in structural engineering and biomechanics",12th December 2012. |
|  | 13. Symposium on "Thoughts on Traditional and Genome based Human History" 6th November, 2012. |
|  | 14. Advanced Materials Characterization Techniques, May 21st - 25th,2012 |
|  | 15. Seminar on Research and Development in Chemical Process Development, 22nd Sept.,2012 |
|  | 16. Application of Magnetic Resonance Spectroscopy in scientific research.,10th Sept.2012 |
|  | 17. Seminar on Metal Mediated Organic Synthesis, 4th Sept.2012 |
|  | 18. Patenting research findings, 10th August.,2012 |
|  | 19. Seminar – A review on Renewable Energy Technologies, 17th July., 2012 |
|  | 20. Talk - Organic Chemistry and Pharmaceutical Industry, 24th April, 2012 |
|  | 21. Seminar on Application of two dimensional NMR in the structural elucidation of biomolecule |
|  | 22. Summer Workshop on Computational chemistry, May 28th - 31st, 2012 |
|  | 23. Workshop on Advanced Materials Characterization Techniques, 21st - 25th May, 2012 |

| | 24. Science Academies' Lecture Workshop on Quantum Mechanics, Molecular- Resonance Spectroscopy and Hands-on Experience in Spectroscopy,March 1 – 3, 2012 |
|---|---|
| | 25. English Language Skill Workshop,December 22 – 23, 2011 |
| | 26. Seminar on Genetic Structure of Indian Jewish Diaspora, October 27 – 28, 2011 |

**3.1.6 How does the university facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the university?**

Erudite Programmes sponsored by Government of Kerala have been a main mode by which the University was able to attaract a large number of Nobel laureates and other eminent academics to the University which has resulted in large number of collaborative research in the field of Nanoscience & Nanotechnology, Environmental Sciences, Chemistry, Physics, Biosciences, International Relations and Poltics etc.  Their visit to the university and intractions with the students, reaserch scholars and faculty have tremendously enriched their research potential.

**Details of Nobel Laureates who have visited the University:**

| Sl. No | Particulars of the Scholar | Programme Dates |
|---|---|---|
| 1. | P. Roger Y Tsein<br>Nobel Laureate,<br>University of California, USA | 4$^{th}$-6$^{th}$ January 2010 |
| 2. | Prof. Ferid Murad<br>Nobel Laureate University of Texas, Health Science Centre at Houston, USA | Sep. 6-9, 2010 |
| 3. | Prof. Robert Huber<br>Nobel Laureate,<br>Max- Plank Institute of Biochemistry, Munich,  Germany | Oct. 18-23, 2010 |
| 4. | Prof. John Deisen Hofer<br>Nobel Laureate, University of Texas South Western Medical Centre, USA | Dec. 5-10, 2010 |
| 5. | Prof. Harold Kroto<br>Nobel Laureate, Florida State University, Tallahassee Florida, USA | Jan. 3-18. 2011 |
| 6. | Prof. Anthony J Legget,<br>University of Illinois ,<br>Urbana-Champaiga,USA | Jan. 26-Feb. 1, 2011 |
| 7. | Prof.Ei-ichi Negishi<br>Nobel Laureate,Purdue University,USA | Feb. 13.2016 |

**Details of Other Erudite Scholars:**

| Sl. No | Particulars of the Scholar | Programme Dates |
|---|---|---|
| 1 | Prof. Michael R Hoffman<br>California Institute of Technology, Pasadena, USA | Feb. 8-22, 2010 |
| 2 | Prof. U.R. Anantha Moorthy<br>Former Vice Chancellor, M.G. University. | Feb. 15-Mar. 14, 2010 |
| 3 | Prof.(Dr.) C. N. R Rao | Apr. 26-28, 2010 |

| | Jawaharlal NehruCentre for Scientific Research, Bangalore | |
|---|---|---|
| 4 | Prof. Gayathri Chakraborthy Spivak Columbia University, USA | Mar. 31-Apr. 6, 2010 |
| 5 | Prof. M. S. Valiathan Former Vice Chancellor, Manipal Academy of Higher Education, Manipal, Karnataka | Aug. 15-29, 2010 |
| 6 | Prof. Prasad Polavarappu Department of Chemistry, Vanderbilt University, Nashville, USA | Nov. 21-Dec. 1, 2010 |
| 7 | Prof. Rene Mullar Louis Pasteur University, Strasbourg, France | Oct. 24-Nov. 1, 2010 |
| 8 | Sri. Kumar Sahini Film Director | Oct. 31-Nov. 10, 2010 |
| 9 | Dr.Henry B Kagan Institute de Chimie Moleculaire et des Materiaux d' Orsay, Universite, Paris-Sud,France | Aug. 15-24, 2010 |
| 10 | Prof. J. Belloni University of Parris, France | Sep. 18-Oct. 2, 2010 |
| 11 | Dr. Ashish Mahabal Senior Scientist, California Institute of Technology, USA | Jan. 1-Feb. 3, 2011 |
| 12 | Prof. Wongyoung Choi Pohang University of Science and Technology, Korea | Feb. 5-12, 2011 |
| 13 | Prof. (Dr.) Mark. R. Wiesner Centre for Environmental Implications of Nano Technology (CEINT) Duke University, USA | Feb. 19-26, 2011 |

| 14 | Prof. (Dr.) Tiaha Joo<br>Department of Chemistry,<br>Pohang University of Science and Technology, Korea | Feb. 12-19, 2011 |
|----|----|----|
| 15 | Prof. (Dr.) Yves Grohans<br>LIMATB (Material Engineering) Laboratory Centre de Recherche,<br>rute St  Maude Universite de Bretagne Sud, Lorient 56100, France | Mar. 4-12, 2011 |
| 16 | Prof. Uros Cvelber<br>Jozef Stefan Institute,<br>Ljublijana, Slovenia (EU) | Mar. 16-22, 2011 |
| 17 | Prof. Jurgen Piontek<br>Leibniz Institute of Polymer Research<br>Department Polymer Reactions and Blends Hohe Str.6<br>01069 DRESDEN<br>Germany | Mar. 7-15, 2011 |
| 18 | Prof. Miran Mozetic<br>Head of Department of Surface Engineering, Jozef Stefan Institute, Jamova cesta 39<br>1000 Ljublijana, Slovenia | Feb. 21-25, 2011 |
| 19 | Prof. Jia Haitao<br>Jinan University, China | Dec. 1, 2010-Jan.31, 2011 |
| 20 | Dr. B. V. R. Tata<br>Light Scattering Studies Section, Condensed Matter Physics Division, Material Science Group<br>Indira Gandhi Centre for Atomic Research, Kalpakkam- 603102, India | Mar. 1-4, 2011 |
| 21 | Prof. Raghavendra Gandagkar<br>Centre for Ecological Sciences,<br> Indian Institute of Science, Bangalore | Dec. 31, 2010-Jan. 7, 2011 |

| 22 | Prof. May Britt Hagg<br><br>Norweigian University of Science and Technology, NTNU,<br><br>Department of Chemical Engineering, Head of Memfo R&D Group | Apr. 3-9, 2011 |
|----|------|------|
| 23 | Prof. Andrea Schafer<br><br>Chair of Environmental Engineering School of Engineering Institute for Infrastructure and Environment, University of Edinburgh<br><br>William Rankine Building,<br><br>The King's Buildings<br><br>Edinburgh EH9 3JL, United Kingdom | Oct. 19-28, 2011 |
| 24 | Prof. Yozhizumi Kajii<br><br>Tokyo Metropolitan University, Japan | Nov. 6-14, 2011 |
| 25 | Prof. Mechmet A Oturan<br><br>Head, Laboratory of Earth and Environmental Science Marne la-Vallee Paris East University, France | Feb. 13-18, 2012 |
| 26 | Prof Kristopher Mc Neil<br><br>Institute of Biogeochemistry and Pollutant Dynamics, Swiss Federal Institute of Technology (ETH),<br><br>Zurich, Switzerland | Jan. 16-21, 2011 |
| 27 | Dr. Madjid Mohseni<br><br>Scientific Director, RES'EUA Water NET Strategic Network,<br><br>University of Columbia, Cananda | Feb. 5-11, 2012 |
| 28 | Prof. R. Ramraj<br><br>Director<br><br>Centre for Photoelectrochemistry,<br><br>School of Chemistry,<br><br>Madurai Kamaraj University | Apr. 16-23, 2011 |
| 29 | Dr. Suresh .S. Narine<br><br>Trent University, Canada | Jan. 8-18, 2012 |

| 30 | Prof. (Dr.) Santiago Esplugas<br>Director,<br>CEQAP,<br>Chemical Engineering Department,<br>University of Barcelona, Spain | Apr. 9-14, 2012 |
|----|----|----|
| 31 | Prof. Uday Shankar, Phillips Health Care, | September 25th 2015- to 27th 2015. |
| 32 | Dr. Pushpito Ghosh<br>Director,<br>Central Salt & Marine Chemicals, Research Institute (CSIR), Gijubhai, Badheka Marg,<br> Bhavanagar-364002, Gujarat | Jul. 7-Aug. 3, 2012 |
| 33 | Prof. Detlef Bahnemann<br>Institut fuer Technische Chemie Leibniz Universitat Hannover, Callinstrasse 3,D-30167, Hannover | Oct. 5-10, 2012 |
| 34 | Prof.AjayK.Sood<br>Department of Physics<br>IISC, Bangalore-560012,India | July 21-22, 2011 |
| 35 | Dr.Rameshwar Adhikari<br>Central department of Chemistry, Tribhuvan University, Kathmandu, Nepal | August 9-18, 2011 |
| 36 | Dr.Vijayamohanan K Pillai<br>Central Electrochemical Research Institute, Karaikudi-630006, Tamil Nadu | September 19-22, 2011 |
| 37 | Dr.Baldev Raj<br>Indira Gandhi Centre for Atomic Research Kalpakkam 603102, Tamil Nadu, India | October 28, 2011 |
| 38 | Dr.Dominique Durand<br>Polymers, Colloids, Interfaces<br>UMR CNRS- University of Marine 6120, France | November 2-13, 2011 |
| 39 | Prof.(Dr.) C.N. R Rao<br>Indian Institute of Sciences | January 13-14,2012 |

| | Bangalore-560012,India | |
|---|---|---|
| 40 | Prof.SreckoValic<br>Ruder Boskovic Institute<br>Bijenickacesta 54<br>HR-10000 Zagreb Croatia | January 18-27,2012 |
| 41 | Prof.Abderrahim Boudenne<br>Universite Paris –Est Creteil, CERTES, France | January27-Feb 4, 2012 |
| 42 | Prof. Manfred Stamm<br>Leibniz Institute of Polymer Research Dresden 01069 Dresden, Germany | February13-21, 2012 |
| 43 | Prof. B.A. Wolf<br>Institute of Physical Chemistry, Johannes Gutenberg- University of Mainz, Welder Weg13, Germany | Feb 27-March 11,2012 |
| 44 | Dr.Ashish K Lele<br>National Chemical laboratory, Pune 411008 | September21-27, 2012 |
| 45 | Prof. Suresh Valiyaveetil<br>Department of Chemistry<br>National University of Singapore<br>3 Science Drive 3<br>Singapore | October 15- 25, 2012 |
| 46 | Prof. Christophe Sinturel<br>Centre De  Researchesur la MatiereDivisee UMR 6619 CNRS, France | December 6-14, 2012 |
| 47 | Meena Alexander, expatriate writer and Indian English poet | July, 2013 |
| 48 | Helen Dwyer, Irish poet | September, 2014 |
| 49 | Prof.(Dr.) C.N. R. Rao<br>Indian Institute of Sciences<br>Bangalore-560012,India | January 18-21, 2012 |
| 50 | Prof. Samuel Oluwatobi Oluwafemi | November 12th 2015 – |

| | Dept. of Applied Chemistry, University of Johannesburg, Doornfontein Campus P.O Box 17011, Doornfontein 2028 | November 28th 2015. |
|----|----|----|
| 51 | Prof.JuergenPionteck Leibniz InstitutfürPolymerforschung,Dresden e.V. Abt. FunktionaleNanokomposite und Blends Hohe Str. 6 D-01069 Dresden | November 09th - 18th November 2015 |
| 52 | Prof. James B Kinchen, University of Wisconsin-Parkside, USA | September 25th 2015- to 27th 2015. |
| 53 | Prof. Dileep Karanath, University of Toledo, USA | September 25th 2015- to 27th 2015. |
| 54 | Prof. Steven W Hook, Kent Sate University, USA | February- March 2013 |
| 55 | Prof. TV Paul, McGill University, Canada | 30 December 2015-5 January 2016 |
| 56 | Ambassador R L Bhatia,MEA, GOI | Februay 2016. |

**List of Visiting Professors/Adjunct Faculties:**

| 1. | Meena Alexander, expatriate writer and Indian English poet , July, 2013 |
|----|----|
| 2. | Helen Dwyer, Irish poet, September, 2014 |
| 3. | Sri. Venu Rajamony IFS, senior diplomat in the Ministry of External Affairs, 27-28 February 2015 |
| 4. | Mr. Mani Shankar Aiyar, former Union Minister and Member of Rajya Sabha, 11 September 2013. |
| 5. | Prof. Alain Berthod, Institute des Sciences Analytiques, Universite de Lyon – France |
| 6. | Prof. Anil J Elias, (Dept.Of Chemistry - IIT Delhi) - Awarded " INSA teachers awards 2012 " by Indian National Science Academy for excellence in teaching science & inspiring students. |
| 7. | Prof. Bakthan Singaram, Dept of Chemistry and Biochemistry - University of California, California |

| 8. | Prof. H. B. Khagan, Universite Paris-Sud, Orsay, France |
|---|---|
| 9. | Prof. Narayan S Hosmane, Dept. Of chemistry & Biochemistry - Northern IIIionis University, USA |
| 10. | Prof. Vijay A. Singh, National Co-ordinator, Science Olympiads, Homi Bhabha Centre for Science Education, Mumbai |
| 11. | Prof. K. K. Balasubramanian, Professor, IIT Madras |
| 12. | Prof. I. N. N. Namboothiri, Professor,IIT Mumbai |
| 13. | Prof. P. J. Sebastian, Senior Scientist,Energy Reasearch Centre-UNAM, Mexico |
| 14. | Prof. M. S. Gopinathan, Professor,IISER, Trivandrum |
| 15. | Prof. Prasad L Polvarappu, Professor of chemistry - Vanderbilt University, Nashville |
| 16. | Dr. Thomas J Colacot, Research & Development Manager, Homogeneous catalysis - New Jersey, USA) awarded the RSC's Applied Catalysis Award – 2012 |
| 17. | Prof. Hassan Y. AboulEinen, National Research Centre, Cairo, Egypt1-2-2014 |
| 18. | Prof. S. Chandrasekharan, IISc, Bangalore |
| 19. | Prof.Sankaran Subramanian, Rtd. Professor, IIT Madras |
| 20. | Prof.Radha V. Jayaram, ICT, Mumbai |
| 21. | Prof. Syed Akheel Ahmed, Dean, faculty of science and technology - University of Mysore, Mysore |
| 22. | Prof.  K. G. Suresh, Dept. of Physics - IIT Mumbai |
| 23. | Prof. Renato Falcao Dantas, University of Campinas – UNICAMP, Brazil |
| 24. | Dr. Despo Fatta Kassinos, Department of Civil and Environmental Engineering, Nireas International Water Research Centre, University of Cyprus, Nicosia-Cyprus |
| 25. | Dr. Urška Lavrenčič Štangar, University of Nova Gorica, Nova Gorica, Slovenia |
| 26. | Prof. Yoram Oran, Department of Desalination and Water Treatment, Zuckerberg Institute for Water Research, Blaustein Institutes for Desert research, Ben-Gurion University of the Negev, Israel |

| 27. | Dr. S. Prabhakar, National Centre for Mass Spectrometry, CSIR-IICT, Hyderabad |
|---|---|
| 28. | Dr. Murali Chilakapati, Advanced Centre for Treatment, Research & Education in Cancer (ACTREC), Kharghar, Mumbai |
| 29. | Dr. M. Vairamani, SRM University, Tamil Nadu |
| 30. | Dr. R. Srinivas, National Centre for Mass Spectrometry, CSIR-IICT, Hyderabad |
| 31. | Prof. Athula Attygalle, Stevens Institute of Technology, USA |
| 32. | Dr.Marc J-F Suter, Eawag, Switzerland |
| 33. | Dr. Laurent Debrauwer, Universitè de Toulouse, France |
| 34. | Prof. Olivier Laprevote, Paris Descartes University, France |
| 35. | Prof. Gawel of Department of Physics, Rzeszow University of Technology, Poland, October 2015 |
| 36. | Prof. Jia Haitao, Director, Institute for Chindian Studies, Jinan University, China served Visiting Scholar at ICCS for 2 weeks during January 2016. |
| 37. | Dr. Srikanth, Peking University, China during November 2015 |

**3.1.7 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization**.

| Financial Year | Research Projects (Rs in Lakhs) | | Scholarships/ Fellowships (Rs in Lakhs) | |
|---|---|---|---|---|
| | Income | Expenditure | Income | Expenditure |
| 2010-11 | 549.50 | 1339.24 | 332.90 | 143.21 |
| 2011-12 | 799.84 | 657.89 | 522.06 | 269.46 |
| 2012-13 | 468.71 | 810.59 | 298.46 | 413.38 |
| 2013-14 | 649.28 | 580.93 | 335.65 | 383.32 |
| 2014-15 | 468.64 | 638.48 | 97.78 | 106.52 |
| 2015-16 | 482.37 | 224.16 | 54.01 | 89.21 |

**3.1.8 In its budget, does the university earmark funds for promoting research in its affiliated colleges? If yes, provide details.**

There is no provision for funds being allocated to affiliated colleges for research in the University budget. However, the University Library has established its Centres in different colleges under its jurisdiction through

which all online journals are available for reference. In addition, all the research facilities in the Statutory Departments and the Inter University/Inter School Centres are available for the smooth research activity of all affiliated research Centres. In addition, collaborative research work among University Statutory departments and the Inter University/Inter School Centres are also promoted in which the guides from affiliated centres and faculty from statutory Departments are the co-guides so as to enable students to have access to facilities in the University Campus.Proposals for joint research projects between University Schools/Centres and affiliated collegesare submitted to funding agencies.

**3.1.9 Does the university encourage research by awarding Post Doctoral Fellowships/Research Associateships? If yes, provide details like number of students registered, funding by the university and other sources.**

Yes.

Post Doctoral Fellowships from  University Post-Doctoral Fellowship  and other funding agencies:

| Sl. No | Name of fellow | Funding Agency & Name of Fellowship | Beneficiary Department |
|--------|----------------|-------------------------------------|------------------------|
| 1. | Dr. Ameer Hassan | UGC- Dr. S. Radhakrishnan Post-Doctoral Fellowship. In Humanities and Social Sciences including Languages | School of Behavioural Sciences |
| 2. | Dr. Aju.K.Asok | Post-Doctoral Fellowship offered by Kerala State Council on Science Technology and Environment,Thiruvanathapuram, Kerala | School of Biosciences |
| 3. | Dr. Amith | Post-Doctoral Fellowship offered by Kerala State Council on Science Technology and Environment,Thiruvanathapuram, Kerala | |
| 4. | Dr.Sharrel Rebello | Post-Doctoral fellowship From DST,SERB | |
| 5. | Dr Bindu Panampalli | DST Fast Track Young Scientist Fellowship | School of Chemical Sciences |
| 6. | Dr. Sooraj MP | University Post-Doctoral Fellowship | |

| 7. | Dr. Proshenjith Saha | UGC Dr. D.S. Kothari Post-Doctoral Fellowship | |
|---|---|---|---|
| 8. | Dr. S. Manna | | |
| 9. | Dr. Sravanthi L. | | |
| 10. | Dr. Asha Krishnan | | |
| 11. | Dr. Dhanya .K.R | University Post-Doctoral Fellowship | |
| 12. | Dr. Jiya Jose | UGC Dr. D.S. Kothari Post-Doctoral Fellowship | International & Inter University Centre for Nano Science and Nano Technology |
| 13. | Dr.Renji R.Reghu | | |
| 14. | Dr. Praveen. G | | |
| 15. | Dr. Obey Koshy | | |
| 16. | Dr. Aparna Thankappan | | |
| 17. | Dr. Angulekshmi N | | |
| 18. | Dr. Kajal Ghosh | | |
| 19. | Dr. Jayalakshmi | | |
| 20. | Dr. Hanna J Maria | | |
| 21. | Dr. Sreekanth V | | |
| 22. | Dr. Giable George | | |
| 23. | Dr. Mahesh V | | |
| 24. | Dr. Smitha Shashi | | |
| 25. | Dr. Sanal P S | Post-Doctoral fellowship From DST,SERB | |
| 26. | Dr. Ajithkumar M P | Post-Doctoral Fellowship offered by Kerala State Council on Science Technology and Environment,Thiruvanathapuram,Kerala | |
| 27. | Dr. Ranjini Radhakrishnan | UGC Dr.D.S. Kothari Post-Doctoral Fellowship | School of Pure and Applied Physics |
| 28. | Dr. Anoop Chandran | | |
| 29. | Dr.Gejo | | |
| 30. | Dr. Nisha Velappan Nair | UGC- Dr. S. Radhakrishnan Post-Doctoral Fellowship. In Humanities and Social Sciences including Languages | School of Gandhian Thought and Development Studies |

| 31. | Dr. Anju Lis Kurian | UGC Post-Doctoral Fellowship | School of International Relations and Politics |
|---|---|---|---|
| 32. | Dr. Alex Mathew | Post-Doctoral Fellowship from ICHR | School of Social Sciences |
| 33. | Dr. Harsha HT | UGC- Post-Doctoral Fellowship | ACESSD |
| 34. | Dr. Baburaj | Post-Doctoral fellowship From DST-PURSE | IUIC |
| 35. | Dr. Krishnaraj K.U | Post-Doctoral fellowship From DST-PURSE | |
| 36. | Dr. Jinu John | Post-Doctoral fellowship From DST-PURSE | |

**3.1.10 What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the university monitor the output of these scholars?**

**Sabbatical Leave**

| Sl. No | Name | School/Centre | Period |
|---|---|---|---|
| 1 | Dr Razeena Padmam | Behavioural Sciences | 20.08.2012- 31.07.2013 |
| 2 | Dr M S John | Gandhian Thoughts and Developmental Studies | 11.02.2013- 10.02.2014 |
| 3 | Dr. K. Sreeranganadhan | Management and Business studies | 20.08.2012- 31.07.2013 |

**Research Awards**

| Sl.No | Name | School/Centre | Period | From |
|---|---|---|---|---|
| 1 | Dr Saji Mathew | School of Letters | 2 years | 22.01.2014 |
| 2 | Dr. Aju K N | School of Letters | 3 Years | 01-03-2012 |
| 3 | Dr. Raju Francis | School of Chemical Sciences | 2 years | 15.02.2012 |

**Post Doctoral Fellowship**

| Sl.No | Name | School/Centre | Period | From |
|---|---|---|---|---|
| 1 | Dr. Anas | School of Chemical Sciences | 2 years | 01.04.2011 |

**Arctic Expedition**

| Sl.No | Name | School/Centre | Period |
|---|---|---|---|
| 1 | Dr. Mahesh Mohan | School of Environmental Sciences | 29.07.2013 to 08.09.2013 |
| | | | 20.06.2015 to 28.07.2015 |
| | | | 29.09.2016 to 31.10.2016 |

**3.1.11 Provide details of national and international conferences organized by the university highlighting the names of eminent scientists/scholars who participated in these events.**
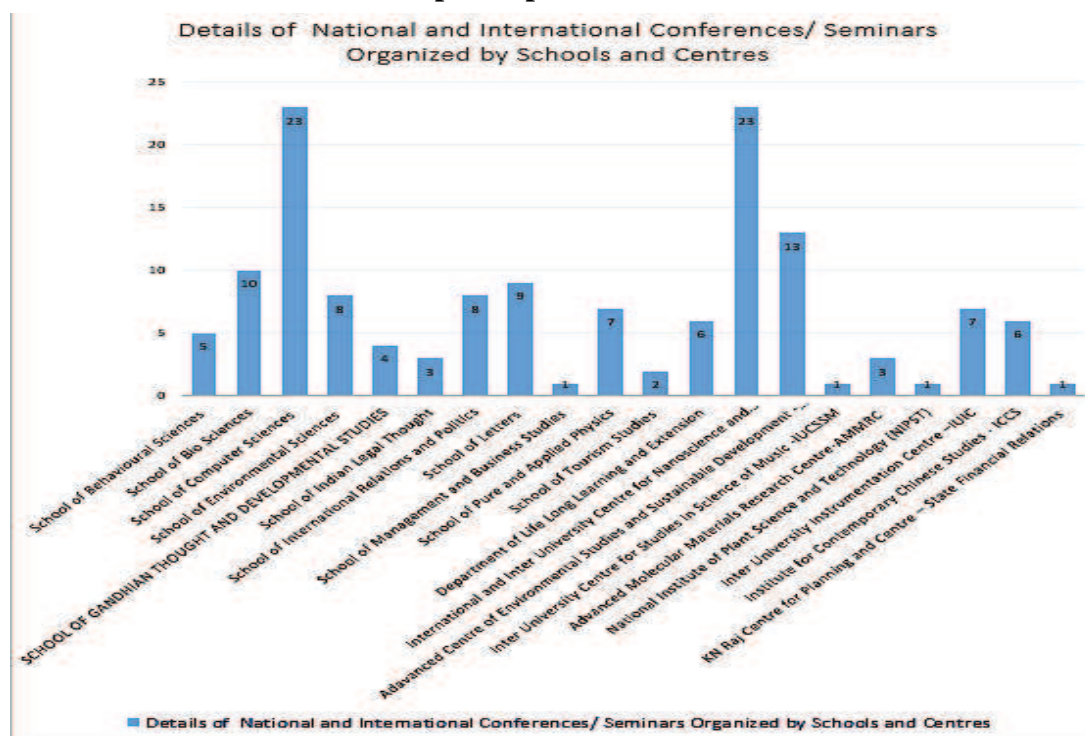
| Sl. No | Seminar/Conferences | Funding agency | Outstanding Participants |
|---|---|---|---|
| **School of Behavioural Sciences** | | | |
| 1. | International Conference on Research Methodology and Scientific Writing. 20-22, December, 2013. (Convenor – Mr. Rajesh) | Confederation of Epidemiological Associations | Dr. Indrajith Banerjee Dr. Padam Simkada Dr. Brijesh Sathian Dr Gamini Premadasa Dr Nishida Chandrasekharan |
| 2. | National Conference on Models of Best Practice in Empowerment of Persons with Disabilities. 16-17, October 2015. (Convenor – Dr. P. T. Baburaj) | National Institute for the Empowerment of Persons with Multiple Disabilities, Chennai. | Dr. Himanshu Das Dr. Rajesh Ramachandran Dr. Jayaraj N. Dr. Neeraja Dr. Dr. K. Balabhaskar |
| 3. | National Seminar on Management of Learning Disabilities. 22.03.2011. (Convenor – Mr. Rajesh E.) | M G University | Dr. Sany Varghese Dr. V. V. Joseph |
| 4. | Seminar on National Trust Act, 1999 and Legal Guardian ship for the parents of individuals with Autism Cerebral palsy mental retardation and multiple disabilities, 15.12.2014(Convener Dr. P. S. Sukumaran) | M G University | Sri.Ajithkumar,IAS Sri.Sureshkumar Sri.P..B.George Sri.Mohandas |
| 5. | National Conference on Models of Best Practice in Empowerment of Persons with Disabilities. !6-17, October 2015. (Convenor – Dr. P. T. Baburaj) | National Institute for the Empowerment of Persons with Multiple Disabilities, Chennai. | Dr. Himanshu Das Dr. Rajesh Ramachandran Dr. Jayaraj N. Dr. Neeraja Dr. Dr. K. Balabhaskar |
| 6. | One day Seminar on "Inclusion Matters: Access and Empowerment of People with all Disabilities". 03.12.2015 (IUCDS). (Convenor – Dr. P. T. Baburaj) | M G University | Mr. Anish Mohan Mr. Mathew Kanamala |

| | | | |
|---|---|---|---|
| **School of Bio Sciences** | | | |
| 7. | Two day seminar on **"Prevention & management of lifestyle diseases"** jointly organized with School of Biosciences & Department of student services (DSS) of M.G.University on 17 th & 18th March, 2016 | DSS –M.G University | Dr Thomas Varghese Oncology Surgeon, Lakeshore Hospital Dr Vidhyadharan DMO, Kottayam Medical College |
| 8. | One day seminar **"Cyber Space & Social Responsibility"** jointly organized with School of Biosciences & PTA School of Biosciences on 28th December 2015 | PTA School of Biosciences | Sri Ajith. DYSP, Kottayam Dr Sunil Cyber Forensic Lab Thiruvananthapuram |
| 9. | Seminar on **"Social Responsibility in Animal Birth Control"** jointly organized with School of Biosciences &Indian Veterinary Association-Kerala in connection with World Spay Day on18th February 2016 | M.G.University | Dr K J Kishore Kumar Vet. Surgeon, Animal Birth Control Division Vet. Public Health Centre, Cochin |
| 10. | Seminar on recent trends in medical molecular biology 03/07/2015. | M.G University | Dr.Uma Shankar and Dr.Keith Davis. Department of Anatomy and cell biology. Indiana University School of medicine |
| 11. | Seminar on **Recent Trends in Medical Molecular Biology** 03/07/2015 Delivered Talk By **Uma Shankar and Dr.Keith** | M.G University | |
| 12. | State level seminar on "Stem Cell Therapy and Cancer" jointly organized by Post Graduate Department of Biotechnology SASSNDP YOGAM College Konni and School of Biosciences M.G University on 14th February 2014.CO-CONVENOR | M.G University | |

| | Dr.Keerthi.T.R | | |
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| 13. | Institutional level two day seminar on **"Prevention & management of lifestyle diseases"** jointly organized with School of Biosciences & Department of student services (DSS) of M.G.University on 17 th & 18<sup>th</sup> March, 2016.Convenor- **Dr.M.S.Latha** | M.G University | |
| 14. | Seminar on **"Cyber Space & Social Responsibility"** jointly organized with School of Biosciences & PTA School of Biosciences on 28<sup>th</sup> December 2015 | M.G University | |
| 15. | Seminar on **"Social responsibility in animal birth control"** jointly organized with School of Biosciences &Indian Veterinary Association-Kerala in connection with World Spay Day on18th February 2016 | M.G University | |
| **School of Computer Sciences** | | | |
| 16. | National Conference on **"Computing and Communication"** (NCCC 2011) May 26-27, 2011 | M.G.University | Prof. (Dr.) S.K. Sinha, CEDT, Indian Institute of Science, Bangalore<br><br>Prof. (Dr.) Paulose Jacob, , Cochin university of Science and Technology, Kerala |
| 17. | Computing Paradigms and Bio-informatics (CPBI 2012) January, 2012 | M.G.University | Mr. Mahesh C., FISAT, Angamaly.<br><br>Prof. (Dr.) Achuth Sankar S. Nair, University of Kerala |
| 18. | National E-conference organized by Amal Jyothi College of Engineering and Technology from 28.01.2016to 30.01.2016. | KSCSTE in association with ISTE Kerala Section | Dr.Mukta Atrey,IIT Mumbai |
| 19. | National Seminar on **Computing and Communication** at School of Computer Sciences, December 2013 | M.G.University | Dr. K.P. Soman, , Amrita Vishwa Vidyapeetham, Coimbatore<br><br>Sri. Krishnan Chittoor, S/W Developer, Microsoft India |

| 20. | Seminar on "**Systems Programming**" on 21.07.2014. | M.G.University | Dr Manjaiah, Professor, Dept. Of Studies and Research in Computer Science, Mangalore University |
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| 21. | "**Steps 2 Research**" at School of Computer Sciences during 19 th -20 th Sept 2014. | M.G.University | Prof Dr.Sabu Thomas,Director, IIUCNN,M.G.University |
| 22. | International Seminar on "**Talking Like Humans**" on 6th December, 2014. | M.G.University | Christy Alias, Ph.D Scholar, Trinity College, Dublin, Ireland |
| 23. | Seminar on "**Image Processing Technologies for Defence Applications**" by on 4.12.2015. | M.G.University | Dr. Lekshmi S, Scientist , National Physical and Oceanographic Laboratory (NPOL) |
| 24. | Seminar on **"Cyber Crimes",** Mr. E.S. Bijumon, DYSP, Cyber Cell, Trivandrum, December 17, 2010. | | |
| 25. | The national level seminar by Ms. Easwari PV, Senior consultant , Siemens Information Systems Limited, Bangalore, Dr. Achuth Sankar S Nair, Hon. Director, Centre for Bio-Informatics, Dr. K S M Panicker, Dean, FISAT in December 2011. | | |
| 26. | Seminar on **"Best Programming Practices",** January 20, 2011. | M.G.University | Dr. Ashish Mahabal, California Institute of Technology (Caltech) USA |
| 27. | National Conference on "Computing and Communication **(NCCC 2011)",** School of Computer Sciences, Mahatma Gandhi University, Kottayam, Kerala, May 26-27, 2011. | M.G.University | Prof. (Dr.) S.K. Sinha, CEDT, Indian Institute of Science, Bangalore. Prof. (Dr.) Achuth Sankar S. Nair, University of Kerala. |
| 28. | The national level seminar - December 2011. | M.G.University | Ms. Easwari PV, Information Systems Limited, Bangalore, |

| | | | D. Achuth Sankar S Nair, FISAT |
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| 29. | Conference on "Computing Paradigms and Bio-informatics" **(CPBI 2012),** January, 2012. | M.G.University | Prof. (Dr.) Achuth Sankar S. Nair, University of Kerala.  Mahesh C., FISAT, Angamaly. Dr. Radhakrishnan E K, Mahatma Gandhi University. |
| 30. | Seminar on "Computational Intelligence, Robotics and Autonomous Systems", January 3rd, 2012. | M.G.University | Dr. Prahlad Vadakkeppat, National University of Singapore |
| 31. | Seminar on "Research Topics for M Tech Dissertation" at School of Computer Sciences by Dr Madhu S Nair, Asst.Professor, Dept. of Computer Science, University of Kerala on 18.09.2014. | M.G.University | |
| 32. | National level technical talk on "NP Complete Problems and High Performance Computing" as part of Interface2012 in Dec, 2012. | M.G.University | Mr. Mahesh, FISAT, Cochin. |
| 33. | The National E-seminar "Steps2Research" at School of Computer Sciences (nodal centre) during 19-20 Sept 2014. | M.G.University | Prof.Dr.D.B. Phatak,IIT Bombay Prof.Dr. Kannan Moudgalya,IIT Bombay Mr.Vijayaraghavan(Former CEO Techno Park ,Member- State Planning Board Kerala Dr.Sahana Murthy, IIT Bombay |
| 34. | International Seminar on "Talking Like Humans" 6th December 2014. | M.G.University | Christy Alias, Ph.D Scholar, Trinity College, Dublin, Ireland. |

| 35. | Seminar on "Image Processing Technologies for Defence Applications" on 4.12.2015. | M.G.University | Dr. Lekshmi S, Scientist , NPOL |
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| 36. | Seminar on "Research Topics for M Tech Dissertation" at School of Computer Sciences by Dr Madhu S Nair, Asst.Professor, Dept. of Computer Science, University of Kerala on 18.09.2014. | M.G.University | |
| 37. | National Conference on Research in Emerging Areas (NACORE 2016), a National e-conference during 28.01.2016to 30.01.2016. | M.G.University | |
| 38. | Seminar on "Remoteness Function on Median Graphs", 2nd Dec 2016, by Dr. Ajitha R. S., Post Doctoral Fellow, University of Kerala. | M.G.University | |
| **School of Environmental Sciences** | | | |
| 39. | LAKE-2012, National Conference on Conservation and Management of Wetland Ecosystems conducted at School of Environmental Sciences, MG University, Kottayam during November 6-8, 2012. | DST, KSCSTE, MG University, Kerala state Biodiversity Board | Dr.T.V.Ramachandra, Indian Institute of Science, Bangalore; Dr. Subash Chandran, Indian Institute of Science, Bangalore; Dr Ligi Philip, Indian Institute of Technology,Madras , Dr.V.N.Rajasekaran Pillai, Executive Vice-President, KSCSTE, Thiruvananthapuram |
| 40. | International conference on Advanced Oxidation Processes (AOP2012) Oct.5-8, 2012, Kottayam | BRNS, KSCSTE, DRDO, ISRO | **Adriana Zaleska**, Gdansk University of Technology, Poland **Bahneman Detlef,** Gottfried Wilhelm Leibniz Universitaet Hannover, GERMANYChantal Houee |

| | | | Levin, LCP, Orsay Cedex **Choi Wonyong,** Pohang University of Science and Technology (POSTECH), South Korea **Christophe Colbeau-Justin,** Université Paris-Sud**, France** |
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| 41. | National Seminar on Sustainable Development, conducted at School of Environmental Sciences, MG University, Kottayam 2012. | MG University | Dr.T.V.Ramachandra, Indian Institute of Science, Bangalore<br>Dr. Shibu K. Mani , Tata Institute of Social Science , Mumbai<br>Dr. Sulthan AhmedIsmail , EcoScience, Chennai |
| 42. | National Conference on Heavy Metals in the Environment' November 28-29, 2013, School of Environmental Sciences, MGU. | DoECC, MG University | **Dr. MNV Prasad,** Hyderabad University<br>**Dr. Nandita Singh,** NBGRI, Lucknow<br>**Dr. Dinesh Mohan**, JNU<br>**Dr.V.Subramaniyan**, JNU |
| 43. | International Conference on Frontiers of Mass Spectrometry- ICMS 2013 September 6-9, 2013 | BRNS, ISRO, DRDO, DST | **R. Srinivas**, National Centre for Mass Spectrometry, Hyderabad, India<br>**Olivier Laprevote**, Paris Descartes University, France<br>**S. K. Raza**, Institute of Pesticide Formulation Technology, India<br>**Gopal Vaidyanathan**, Waters India Pvt. Ltd., India<br>**Venkateswarlu Panchagnula**, National Chemical Laboratory (CSIR – NCL), Pune |
| 44. | National Conference heavy Metals in the Environment' during November 28-29, 2013, School of Environmental Sciences, MGU | DoECC, MG University | Dr. MNV Prasad, Hyderabad University<br>Dr. Nandita Singh, NBGRI, Lucknow<br>Dr. Dinesh Mohan, JNU<br>Dr.V.Subramaniyan, JNU |

| 45. | International Conference on Advanced Oxidation Processes (AOP 2014*)*, September 25-28, 2014 Munnar | DST, BRNS,DRDO, ISRO | **Michael R. Hoffmann**, California Institute of Technology, USA<br><br>**L. Gomathi Devi**, Bangalore University, India<br><br>**Mehmet A. Oturan**, Universite Paris-Est, Marne-la-Vallee, France<br><br>**Collin G. Joseph**, Universiti Malaysia Sabah, Malaysia<br><br>**Anju Chadha**, IIT, Madras, India |
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| 46. | International Conference on Frontiers of Mass spectrometry, December 11-14, 2015. Kottayam | DST | **Marc J-F Suter, Eawag**, Switzerland<br><br>Michael W. Linscheid, Humboldt-Universitaet zu Berlin, Germany<br><br>**Athula Attygalle**, Stevens Institute of Technology, USA<br><br>**Evgeny Nikolaev**, Physics Russian Academy of Sciences, Russia<br><br>**Achille Cappiello**, Università di Urbino, Italia<br><br>**Olivier Laprevote**, Paris Descartes University, France |
| **School of Gandhian Thought and Developmental Studies** | | | |
| **47.** | National Seminar on "Ageing Gracefully: A multi – Disciplinary Perspective" (2014) | **ICSSR, New Delhi** | Dr.Anand P Ambali, Professor of Medicine (Specialised in BLDE University, Vijayapur, Karnataka.<br><br>Rev.Fr.Romance Antony, Executive Director, Society for Empowering Action, Kerala.<br><br>Prof.John Kattakayam, Prof.Emeritus, Department of Sociology, University of Kerala. |
| 48. | Two Day's National Seminar on "Understanding the Tribal Life in India: Issues, | ICHR | Dr.B.Eqbal, Former V.C, Kerala University. |

| | Challenges and Alternate Approaches" on 10th and 11th of October 2013 | | |
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| 49. | One Day National Conference on Yoga in association with the inauguration of the Centre for Yoga and Naturopathy on 12.01.2016. | MG university | Shri.Subodh Tiwary, Kaivalyadhama Institute of Yoga , Mumbai. Dr.Vinod Kool, New York University of Polytechnic Institute. |
| 50. | Two days national seminar on relevance of Yoga in Modern life on 18.03.2016 & 19.03.2016. | MG university | Sri. Hira Ratan Manek, Dr. T.V.Padmanabhan, |
| **School of Indian Legal Thought** | | | |
| 51. | National Seminar on **Rights of Children"** held on 23rd, 24th and 25th Feb 2012. | M.G.University | Prof.N.K.Jayakumar Vice Chancellor,National Law University,Kochi. |
| 52. | National Seminar on **Family as an Institution: Modern Realities and Trends in Law** from 28th to 2nd March 2013. | M.G.University | Prof.Dr.Y.C.RamaSubbayah, Pro. Vice Chancellor,Shro Acharaya Nagarjuna University,Gundur |
| 53. | Two Day National Seminar on the topic of **Farmers Right in the Liberalised Economy : Perspectives and Trends** was conducted during 27th and 28th March 2015. | M.G.University | Justice C.N.Ramachandran Nair Retd. Judge High Court Kerala &Chairman Dam Safety Authority, India. |
| **School of International Relations and Politics** | | | |
| 54. | International conference on The Rise of China: Policy Parameter and Prospects, 1-3 November 2012 | M.G.University Institute of Chinese Studies, New Delhi. | His Excellency Sri. Niu Qingbao, ConsulGeneral, Consulate of China, Mumbai Prof. Alka Acharya, Director, Institute of Chinese Studies, New Delhi Prof. Madhu Bhalla, Delhi University |
| 55. | International conference on The Arab World; March Towards Democracy, 4-5 February 2013 | M.G.University Minstry of Exernal Affairs, GOI. Indian Council of World Affairs | Sri. Ranjan Mathai, Foreign Secretary of India, Consul General of Turkey in Mumbai.  Mrs. Ceylan Ozen Erisen, Prof. Tim Niblock, University of Exeter, UK, Prof. Siddharth |

| | | KSHEC, Trhiruvanathapuram. | Mallavarapu, South Asian University, Dr. El Sayed Mekkawi, Minufyia University, Egypt, Sri. Kim Jinwoog, Korea Research Institute for Military Affairs, Sri. John Cherian , Frontline. |
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| 56. | South Asian regional conference on Engaging South Asia: Challenges and Opportunities of New Diplomacy, 27-28 th March 2014 | M.G.University KSHEC, Trhiruvanathapuram. | Ambassador K. P. Fabian Prof. V. Suryanarayan, former National Security Advisory Board Member |
| 57. | Colloquium on Travails of Political Transition in Iraq and Egypt, 27 th June 2014 | M.G.University | Prof Ninan Koshy, Prof AK Ramakrishnan, JNU |
| 58. | National seminar on Understanding China, 27-28 February 2015 | M.G.University | Mr. Venu R. senior diplomat in the Ministry of External Affairs and currently Press Secretary to the President of India, Prof. Madhu Bhalla (Delhi University), Sri. Murali Nair (former Consul of India, China) |
| 59. | Conference on Engaging Diaspora: Challenges and Opportunities, 23-24 March 2015 | M.G.University KSHEC, Trhiruvanathapuram. | Ambassador Ishrat Aziz, Ambassador R. Dayakar, Dr. Mao Yue, Director, South Asia Research Centre for China, Mr. Velupillai Kuhanendran, Director, Global Tamil Forum |
| 60. | International seminar on Understanding Contemporary India, 14-15 January, 2016-08-12 | M.G.University | Dr. T.V. Paul, Professor of International Relations, McGill University, Canada, Dr. Imtiaz Ahmed, Executive Director, Regional Centre for Strategic Studies, Sri Lanka, Dr. Shibashis Chatterjee, Professor of IR, Jadavpur University |
| 61. | National conference on Public Policy and Governance in India and China, 21-22 March 2016 | M.G.University Chennai Center for China Studies. | D. S. Rajan, Distinguished Fellow of Chennai Centre for China Studies Prof. V. Suryanarayan, former Member, National Security Advisory Board , Govt of India |

| **School of Letters** | | | |
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| 62. | One day seminar on "Vision and Experience" 29 March 2012 | M.G.University | Shri Kumar Sahini National Award Winner for Direction |
| 63. | Seminar on Computational Practices in association with Akshara, December, 2012 | M.G.University | Prof. B.Iqbal Former Vice Chancellor,Kerala University |
| 64. | Translator's Orientation Programme from 13 to 16 February 2013 | MG University, CIIL Mysore | |
| 65. | National Seminar on Indian Cinema: A Century in Perspective, 21-23 March 2013 | M.G.University | Dr. Hariharan, eminent film maker and critic in Tamil Nadu |
| 66. | National Seminar on Comparative Literature" from 25--27 March 2014 | M.G.University | Prof.N.V.Narayanan, Calicut University. |
| 67. | Seminar on Publishing 12 January 2015 | MG University, National Book Trust, New Delhi | |
| 68. | National Seminar on "Re-Reading Padmarajan" in January 2016 | M.G.University | Shri.Joshy Mathew,Former Kerala Sahithya Academy Vice President |
| 69. | National Seminar on *Thirukkural* in March 2016 | M.G.University | Prof Nachimuthu Internationaly Relevant Linguistics |
| 70. | National Conference on The Hebrew Question in the Italian Renaissancein April 2016 | M.G.University | Prof.Daniel Stein Kokin Jewish Literature and Culture ,University Greifswald,Germany |
| **School of Management and Business Studies** | | | |
| 71. | National Conference on Business Models (NCBM), February 2016 | M.G.University | Dr. Javed Hassan,Nest Group Dr.K.C.Chandrashekaran Nair Consultant KIDCO Dr T.Ashokan P.V.C Kannur University Shri P.Vinod Manger RBI |
| **School of Pure and Applied Physics** | | | |
| 72. | National seminar on 100 years of crystallography, 2013, SPAP Mahatma Gandhi University, Kottayam. | M.G.University | Dr.S.Karthikeyan, IMTECH,Chandigarh |

| 73. | International year of Crystallograpghy 2014 | *KSCSTE* | Dr.M.R.N Murthy,IISC Banglore |
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| 74. | National seminar on Photonics,MGU June 26th ( 2014) | M.G.University | Dr Reji Philip,Raman Research Institute ,Bangalore |
| 75. | National Seminar on Advanced Materials, SPAP,M.G. University, January 19-20th, 2012. Number of Participants – 75 | M.G.University | Dr Santhosh Kumar,IIT Chennai |
| 76. | International Conference on Plasma & Nanotechnology and 29th National Symposium on Plasma Science & Technology 8-11th Dec 2014 (PLASMA-2014) | M.G.University | Ashish Vyas, IIT Delhi |
| 77. | Seminar on "The Hunt for the Blue LED"-SPAP, 14, October, 2015 | M.G.University | Dr Reji Philip,Raman Research Institute ,Bangalore |
| 78. | Seminar on Piezoelectric Thin Films – Influence of film texture for MEMS. SPAP, 18 June 2015. | M.G.University | Dr B.Premlal,U.K |
| **School of Tourism Studies** | | | |
| 79. | Two day National Level Seminar on Research Methodology and SPSS software in May 2016 | M.G.University | Dr. B. George and Dr. S. Pushparaj, Associate Professors, Madurai Kamaraj University and Dr. Cecil Dalston, Associate Professor, Presidency College Chennai |
| 80. | One day Seminar on 'Literary Tourism' with Darsana Academy and DTPC – Kottayam | M.G.University | Mr. U.V.Jose, Director, Dept of Tourism |
| **Department of Life Long Learning and Extension** | | | |
| 81. | Four day Seminar on Organic Farming31 Jan to 3 Feb, 2013. | M.G.university | K.V.Dayal,Famous Organic farming expert |
| 82. | One Day Seminar on Organic Farming-16-10-2014 | M.G.University | K.V.Dayal,Famous Organic farming expert |

| 83. | The International Seminar, Theme-"EXTENSION: THE THIRD DIMENSION OF EDUCATION" February 26-28, 2016 Venue:-Marian College,Kuttikkanam | M.G.University | |
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| 84. | Two Day National Seminar on Relevance of Yoga in Modern Life 18th and 19th March 2016 | M.G.University | Hira rattan Manek,famous sun gazing expert |
| 85. | National Seminar on the Trends and Developments in the Education of Children with Learning Disabilities | M.G.University | Himanshu Tripati |
| 86. | National Seminar on Blood and Organ Donation- Scientific and Motivational Aspects -5 th to 7 th October 2016. | M.G.University | |

**International and Inter University Centre for Nanoscience and Nanotechnology-IIUCNN**

| 87. | International Conference on Macromolecules: Synthesis, Morphology, Processing, Structure, Properties and Application (ICM 2016): 13-15, May 2016 | University,DST New Delhi,KSCSTE Thiruvant-hapuram | Dr. Galder Kortaberria Basque Country University, Donostia, Spain. Dr. Sunilkumar PN University of Regensburg, Germany Prof. Jana Rieger University of Alberta, Canada Prof. Erhan Piskin Hacettepe University |
| 88. | Fourth International Conference on Nanomedicine and Tissue Engineering (ICNT 2016) 12-14 August 2016 | ICMR,KSCSTE Thiruvanthapuram | Abdeen Mustafa Omer, UK Devika Chithrani, Canada Jagat Kanwar, AUSTRALIA Xiaohong Yang , China Madhavan Nair, USA |
| 89. | First International Conference on Advanced Materials for Power Engineering (ICAMPE 2015) : 11-13 December, 2015 | DRDO, New Delhi DST, New Delhi | Dr. Cemal Basaran, State University of New York at Buffalo, New York, USA Dr. Matej JERGEL Slovak Academy of |

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| | | | Sciences<br>Bratislava, Slovak Republic<br>Prof. Douglas B. Chrisey<br>Tulane University<br>New Orleans, USA |
| 90. | International Conference on Nanostructured Polymeric Materials (ICNPM 2015) : 13-15 November, 2015 | ICMR, New Delhi<br>KSCSTE, Trivandrum | Prof. Samy Remita (Mr.)<br>Université Paris-Sud, Orsay, France<br>Dr. Naved I. Malek<br>Universidade De Sao Paulo<br>Brazil<br>Prof. Emmanuel Rotimi |
| 91. | World Congress on Microscopy (WCM 2015): 9-11 October,2015 | INSA, New Delhi University,DST New Delhi ,KSCSTE Thiruvanthapuram | Prof. Ludek Frank,<br>Ústav přístrojové techniky<br>Czech Republic<br>Dr. Orsolya Kantor<br>Semmelweis University, Hungary |
| 92. | Fourth International Conference on Natural Polymers (ICNP 2015) : 10-12 April 2015 | University,DRDO ,KSCSTE Thiruvanthapuram | Dr. Chantara Thevy Ratnam,<br>Malaysian Nuclear agency<br>Selangor DE, Malaysia<br>Prof. Marcos Lopes Dias<br>Universidade Federal do Rio de Janeiro-Brasil<br>Dr. Jonathan Lao<br>Laboratoire de Physique Corpusculaire, CNRS/IN2P3, France |
| 93. | Second International Conference on Nanostructured Materials and Nanocomposites (ICNM 2014) : 19 – 21 December 2014 | DST, New Delhi | Dr. Adel Najar<br>Nippon Telegraph and Telephone Corporation (NTT)<br>Kanagawa Japan<br>Prof. Jose Rajan, Ph.D.<br>Univ Malaysia Pahang, Malaysia<br>Ogun State, Nigeria |
| 94. | International Conference on Polymer Processing and Characterization (ICPPC 2014) : 11-13 October 2014 | University,DST New Delhi ,KSCSTE Thiruvanthapuram | Dr. Greg Griffin<br>RMIT University<br>Melbourne, Australia<br>Prof. Dr. Gerhard Eder<br>Johannes Kepler University |
| 95. | First World Conference on Fracture and Damage Mechanics (FRACTURE | University,INSA New Delhi,KSCSTE Thiruvanthapuram | Arun Raje<br>LaVision GmbH,<br>Goettingen, Germany |

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| | 2014): 9-11 August 2014 | | Ramdane Boukellif Universität Kassel Kassel, Germany Ryuichiro Ebara , Fukuoka University, Japan Prof. Masahiro Endo, |
| 96. | Third International Conference on Recycling and Reuse of Materials (ICRM 2014): 11-13 April 2014 | CSIR, New Delhi DST, New Delhi INSA, New Delhi KSCSTE, Trivandrum | Prof. Vinicius Guilherme Celante Instituto Federal do Espírito Santo - IFES - Campus Aracruz, Brazil. Dr. Eng. Maria Concetta Tomei Monterotondo Stazione,Italy Tomoko Akai |
| 97. | Seminar on Polymers and Environment, 4th September 2013 | M.G.University USIEF | Pro Vice Chancellor M.G University Cordinator USIEF,Chennai |
| 98. | International Conference on Advanced Polymeric Materials (ICAPM 2013) : 11-13 October 2013 | CSIR, New Delhi DST, New Delhi INSA, New Delhi KSCSTE, Trivandrum | Dr Ashu Bansal University of St Andrews, UK Prof. Juozas Vidas Gražulevičius Kaunas University of Technology,Lithuania Prof. Dr. Baki Hazer Bulent Ecevit University, Zonguldak, Turkey Prof. Dr. Gerhard Wenz Campus Saarbrücken, |
| 99. | Third Euro-India International Conference on Nanomedicine and Tissue Engineering (ICNT 2013) : 9-11 August 2013 | CSIR, New Delhi DRDO, New Delhi DST, New Delhi ICMR, New Delhi INSA, New Delhi | Jie Weng Jiaotong University, PR China Charlotte A. E. Hauser Institute of Bioengineering and Nanotechnology, Singapore Lindy Fitzgerald The Univ. of Western Australia Dr. Samarendra Maji Ghent, Belgium |
| 100. | First International Conference on Advanced Nanocomposites for Construction Materials (ICNC 2013) 12-14 March | CSIR, New Delhi INSA, New Delhi KSCSTE, Trivandrum | Mahmoud Reda Taha, Mexico Firat University, Turkey A Jindrich M., Czech Republic |

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| | 2013 | | Dimitris Karamanis, Greece<br>Federica Bondioli, Italy<br>MirhoseiniSarejam, Iran<br>Akira Otsuki, Australia |
| 101. | The India-Israel Meeting On Material Science And Nanoscience, (IIMMN-2013) , Mahatma Gandhi University, Kottayam, Kerala, India 31$^{st}$ January to 1$^{st}$ February 2013 | CSIR, New Delhi<br>DRDO  New Delhi<br>KSCSTE, Trivandrum | Gary Hodes,Israel<br>David Cahen,Israel<br>Leeor Kronik,Israel<br>Rafal Klajn,Israel<br>Yehiam Prior,Israel<br>Ernesto Joselevich,Israel<br>Gitti Frey,Israel |
| 102. | Second International Conference on Nanomaterials - Synthesis, Characterization and Applications (ICN – 2012) 13-15 January 2012 | DST, New Delhi<br>ICMR, KSCSTE, Trivandrum | Dr. Baidakova Marina Vladimirovna ,Russia<br>Dr Guryanova Natalia Ivanovna Russia<br>Dr Yury S. Nechaev RUSSIA<br>Dr Prof. Petr A. Purtov Russia |
| 103. | Third International Conference on Natural Polymers (ICNP2012): 26-28 October 2012. | CSIR, New Delhi<br>DBT, New Delhi<br>DRDO, New Delhi<br>DST, New Delhi<br>INSA, New Delhi | Dr. Elliot Paul Gilbert Project Leader, Food Science Australia<br>Mohan Trada University of Southern Queensland, Australia<br>Anand Gadre University of California, Merced<br>Prof.Chengbo Shandong University |
| 104. | First Indo- US International Conference on Polymers for Packaging Applications (ICPPA 2012) 31st March – 2nd April 2012, Kottayam, Kerala, INDIA | CSIR, New Delhi<br>DRDO, New Delhi<br>ICMR, New Delhi<br>KSCSTE, Trivandrum | Dr. LIU ZhiGang School of Mechanical Engineering, Jiangnan University  CHINA<br>Prof. Dr. LU-Li Xin School of Mechanical Engineering, Jiangsu Province, CHINA |
| 105. | Third International Multicomponent Polymer Conference (IMPC-2012) 23-25 March-2012, Conducted by Centre for Nanoscience, M. G. | DST, New Delhi<br>ICMR,KSCSTE,M.G.University | Prof Patrick Sharrock University Paul Sabatier Castres Cedex, France<br>Dr. Leandro Ludueña National University of Mar del Plata, Argentina |

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| | University, Kerala, INDIA | | |
| 106. | (PPOMP 2011) First International Conference on Plasma Processing of Organic Materials and Polymers 25-27 November 2011, Kottayam, Kerala, India | BRNS, Mumbai CSIR, New Delhi DST, New Delhi ISRO, Bangalore | Dr. Frederic Thevenet Dpt. Chimie & Environnement Ecole des Mines, Douai Poncin-Epaillard Fabienne Université de Rouen, Mont Saint Aignan Cedex, France Miran Mozetic Jozef Stefan Institute, Slovenia Miguel Manso Silván |
| 107. | ICNC-2011- International Conference on Composites and Nanocomposites-2011 Conducted by Centre for Nanoscience, M. G. University, Kerala, INDIA | CSIR, New Delhi DST, New Delhi KSCSTE, Trivandrum | Dr. Andrés E. Sotelo Mieg EUITIZ, Zaragoza (Spain) Xiangdong Yao Griffith Unversity , Australia Prof.Bernard Riedl, Université Laval, Canada Suresh Narine Trent University, Canada |
| 108. | Second International Conference on Recycling and Reuse of Materials (ICRM 2011) 5-7 August 2011, Kottayam, Kerala, India | CSIR, New Delhi INSA, New Delhi KSCSTE, Trivandrum | Prof. Dr. Verónica Calderón   Spain Prof. Neil Izatt USA Prof. Nagesh N. Murthy USA Prof. Marko Likon Slovenia Prof. Raimundo Kennedy Vieira Brazil, |
| 109. | First International Conference on Nanomaterials (ICN 2010) April 27-29, 2010. | CSIR, New Delhi INSA, New Delhi KSCSTE, Trivandrum | Dr. Rongming Wang, China Prof. Dr. H.-G. Boyen, Belgium Dr. M.A.G. Soler Invoice, Brazil Dr. Mathieu Etienne, FRANCE Dr. Rolf Heumann Germany |
| 110. | Second International Conference on Polymer Processing and Characterization (ICPPC – 2010) January 15, 16 and 17, 2010 | CSIR, New Delhi INSA, New Delhi KSCSTE, Trivandrum | Dr. Verónica Patricia Martino France Prof. Alexey Iordanskii. Moscow Dr. Moyad N. Khalaf Iraq Prof. Oleg Kulikov Russia Prof. Wang li China Prof. Lu Lin China |

| | Adavanced Centre of Environmental Studies and Sustainable Development -ACESSD | | |
|---|---|---|---|
| 111. | International Conference on Advanced Oxidation Process in collaboration with Centre for Environment Education and Technology (CEET), (AOP-2010)-September 18-21, 2010, Kottayam. | DST, CSIR, DRDO | Prof. Dr. Detlef W. Bahnemann (Germany), Prof. Dr. Hoffmann(caltech,USA), Prof. Dr. Jacqueline Belloni (France), Padmasree Jai P. Mittal (BARC, India), Dr. Tulsi Mukherjee (BARC, India), Prof. Dr. B.S. M. Rao (Pune ,India) |
| 112. | National Conference on Native Livestock breeds and their sustainable uses in collaboration with Vechoor Conservation Trust and National Biodiversity Authority, September 27- 28, 2010, Kottayam) | DST, CSIR, DRDO | Prof. Dr. Deniz Roizard (France), Dr. Asok M Raichur (IISC, India), Prof. Dr. V.V. Tepliakov(Russia), Prof. Dr. G. Golemme(Italy), Dr Jayasree ramkumar(BARC, India), Prof. Dr. Quang Trong Nyugen (France), Dr. Hiromitsu Takaba (Japan), Prof. Dr. Alok Kumar Ghosal (IIT, Guwahati,India), Dr. Anupam Sukla (IIT, Delhi,India), Thomas Luxbacher(Austria), Dr. S. K. thampi (CSMCRI, India) , Prof. Dr. R. Mercier(France), Prof. Dr. Nagy E(Hungary) |
| 113. | International Conference on Membranes: Environmental and biological applications- (ICM-2011) September 16-19, 2011, Kottayam. | DST, CSIR, DRDO | Prof. Dr.  Hynd Remita (France), Prof. Dr. Mehmet Oturan(France), Dr. Sarkar (BARC, India), Dr. Abijith Saha(Kolkata,India) |
| 114. | National conference on Disaster risk and vulnerability, School of Environmental Sciences, Mahatma Gandhi University, Kottayam, Kerala, 2011 | DST, CSIR, DRDO MEF, | Prof. D. Fatta Kassinos (Cyprus), Prof. Minjoong Yoon (South Korea), Prof. Renato). |
| 115. | Second International conference on Advanced Oxidation Process, October 5-8, 2012, Kottayam. | M.G.Un-iversity | Prof. Dipankar Chakraborty(Kolkata, India), Prof. Anne M. Hassen (Mexico), Dr. Anurag Garg(IIT,Bombay), |

| 116. | National Conference on Conservation and Management Of Wetland Ecosystems, In Association with SES, MGU, Kottayam, November 6-9, 2012 | M.G.Un-iversity MEF, | Prof. Andreas Kaiser (Denmark), Prof Yoram Oren (Israel), Prof. Balagopal Nair (Japan) |
|---|---|---|---|
| 117. | National seminar on sustainable development – recent trends in meeting the challenges, School of Environmental Sciences, Mahatma Gandhi University, Kottayam, Kerala, January 20-21, 2012, Kottayam. | M.G.Un-iversity | Prof. Anilkumar(Japan), Prof Sylvie (France), Prof) |
| 118. | International Conference on Membranes (ICM-2013), October 3-6, 2013, Kottayam. | DST, CSIR, BRNS | K. G. K. Warrier (NIIST, India), Prof. Dr. Vinay A. Juvekar (IIT,Bombay) |
| 119. | Seminar on Conservation of Western Ghats, School of Environmental Sciences, Mahatma Gandhi University, Kottayam, Kerala, 16th December 2013. | DST, CSIR, BRNS | Prof. O. P. Singh (India), Prof. Dayanthi Nugegoda (Australia). |
| 120. | Third International Conference on Advanced Oxidation Processes (AOP 2014) Sept. 25-28, 2014, Munnar, Kerala. | DST, CSIR, BRNS | Mark Wisner (USA), Dr/ Ulhas Kharul (NCL,India) |
| 121. | International Conference on Water: from pollution to purification (ICW - 2015) Jan. 23-26, 2015, Kottayam, Kerala | DST, CSIR, BRNS | Falcao Dantas ( Brazil), |
| 122. | International Conference on Membranes (ICM - 2015) Aug. 21-24, 2013, Kochi, Kerala | DST, CSIR, DRDO | Dr. Pushpito Ghosh(CSMCRI, India) |
| 123. | International Conference on Mass Spectrometry, December, 11-14, 2015, Kottayam | MEF | Dr. Marc J-F Suter, Eawag, Switzerland Prof. Athula Attygalle, Stevens Institute of |

| | | | Technology, USA<br>Prof. Olivier Laprevote, Paris Descartes University, France |
|---|---|---|---|
| **Inter University Centre for Studies in Science of Music -IUCSSM** |
| 124. | International Seminar on Science of Music was organized "Nadam-2015" 23-27 Sepetember 2015 at Kottayam | M.G.University | Dr. James B. Kinchen, University of Wisconsin-Parkside<br>Dr. Sanjay Subramanyam Chennai,Eminant Karnatic Vocalist |
| **Advanced Molecular Materials Research Centre-AMMRC** |
| 125. | National Seminar on Current Trends in Material Sciences on 15-11-2013 | M.G.University | Dr Vijayamohanan Pillai, CECRI, Karaikudi<br>Dr K.R.Dayas, CMET, Trichur<br>Dr Shaaijumon Cherian, IISER, TVM |
| 126. | National Seminar on Recent trends in Inorganic-Organic Hybrid Materials on 26 - 27 February, 2015 | M.G.University | J. N Behera<br>( NISER, Orissa)<br>T.K.Maji<br>(JNCASR, Bangalore )<br>R. Murugavel,<br>( IIT, Bombay) |
| 127. | National Seminar on Recent Advances in Materials Sciences on November 18-19, 2016, | M.G University | 1. Dr. Subi Jacob George, JNCSR Banglore<br>2. Dr.Vinod Prabhakaran NCL Pune<br>3. Dr. Reji Varghaes, IISER TVM<br>4. Dr. Hareesh, NIIST, TVM |
| **National Institute of Plant Science and Technology (*NIPST*)** |
| 128. | National Seminar on "Plant Science Technology for Sustainable World" held on 25th & 26th February 2016. | M.G.University | Dr. Krishnaraj P.U., College of Agriculture, UAS Dharwad, Karnataka.<br>Dr. Lekha Sreekantan, KAU, Thiruvananthapuram.<br>Binod Parameswaran, CSIR-NIIST, Thiruvananthapuram<br>Dr. K.G. Reghu, CSIR-NIIST, Thiruvananthapuram |

| Inter University Instrumentation Centre –IUIC | | | |
|---|---|---|---|
| 129. | National Workshop on Frontiers of Spectroscopy and Microscopy, Sept 10-12, 2012 | DST-PURSE | • Prof. K.V.Ramanathan, IISc, Bangalore (NMR Spectroscopy)<br>• Dr. Venkat Manohar, IICMS, Chennai (MS- Proteomics)<br>• Dr. Unnikrishnan Warrier C. CWRDM, Calicut (Isotopes ratio - MS)<br>• Prof. P.M.G. Nambissan, SINP, Kolkata (Positron Annihilation) |
| 130. | National Seminar on "Uptrends in Chemical Sciences and Technology"-2013 March 15-16, 2013 | UGC | 1. **Dr. T. Pradeep**, IIT Chennai<br>2. **Prof. A. Ajayaghosh**, CSIR- O Scientist & Dean, Academy of Scientific And Innovative Research, Niist, Trivandrum<br>3. **Prof. Santhanu Bhattacharya**, IISc, Bangalore<br>4. **Prof. A.K. Mishra**, IIT Chennai<br>5. **Dr. Y.S. Mayya**, BARC, Mumbai |
| 131. | International Conference on Mass Spectrometry, ICMS-2013 Sept. 6-9, 2013 | KSCSTE, BRNS, CSIR, M. G. University | **Dr. Olivier Laprevote**, Paris Descartes University, France<br>Dr.Mahesh J. Kulkarni, National Chemical Laboratory, Pune, India<br>Prof. Kentaro Yamaguchi, Tokushima Bunri University, Japan<br>Dr.Venkateswarlu Panchagnula, National Chemical Laboratory, Pune<br>Dr.R. Srinivas, National Centre for Mass Spectrometry, India |

| 132. | National Colloquium on Mass Spectrometry, Chemical, Biological and Environmental applications Aug. 29-31, 2014 | KSCSTE | **Dr. K. P. Madhusudanan**, Visiting Scientist, IUIC, MGU<br>**Dr S.K. Raza**, Institute of Pesticide Formulation Technology, Gurgaon<br>**Dr. M.V. Jagannadham**, CSIR- CCMB, Hyderabad<br>**Dr.Abdul Jaleel K. A.**, RGCB, TVM), |
|------|------------------|--------|------------------|
| 133. | International Conference on Advanced Oxidation Processes, AOP- 2014 Sept. 25-28, 2014 | DST, KSCSTE, BRNS, ISRO | **Dr. Michael R. Hoffmann**, California Institute of Technology, USA<br>**Prof. Mehmet A. Oturan**, Universite Paris-Est, Marne-la-Vallee, France<br>**Dr. Collin G. Joseph**, Universiti Malaysia Sabah, MALAYSIA<br>**Prof. D. Fatta-Kassinos**, School of Engineering, University of Cyprus, Cyprus\<br>**Prof. Minjoong Yoon**, Chungnam National University, Daejeon, South Korea |
| 134. | International Conference on Water, ICW-2015 Jan. 23-26, 2015 | DST | **Prof. Mark R. Weisner**, Duke University, USA.<br>**Prof. Yoram Oren**, Zukerberg Institute for Water Research, Israel.<br>**Dr. Anne M. Hansen**, Mexican Institute of Water Technology, Mexico.<br>**Dr. Martina Zelenakova**, Technical University of Kosice, Slovakia. |
| 135. | Third International Conference on Membranes, ICM-2015 Aug. 21-24, 2015 | DRDO | **Prof. Y. Oren**, Zuckerberg Institute for Water Research, Israel<br>**Prof. Vladimir Teplyakov**, Russian Academy of Sciences, Russia<br>**Prof. Andreas Kaiser**, Technical University of Denmark, Denmark<br>**Dr. Thomas Luxbacher**, Anton Paar GmbH, Austria |

| 136. | National Workshop on Mass Spectrometry (NWMS-2015), Dec. 10-11, 2015 | M. G. University | **Dr. M. Vairamani**, SRM University, Chennai<br>**Dr. K. Madhusudanan**, IUIC, M. G. University<br>**Dr. R. Srinivas**, National Centre for Mass Spectrometry, CSIR-IICT, Hyderabad<br>**Prof. Athula Attygalle,** Stevens Institute of Technology, USA. |
|---|---|---|---|
| 137. | International Conference on Mass Spectrometry, ICMS-2015 Dec. 11-14, 2015 | DST, KSCSTE, DRDO | **Dr. Marc J-F Suter**, Eawag, Switzerland<br>**Prof. Athula Attygalle,** Stevens Institute of Technology, USA<br>**Dr. R. Srinivas**, National Centre for Mass Spectrometry, India |
| **Institute for Contemporary Chinese Studies - ICCS** | | | |
| 138. | Symposium on the theme China and the Emerging World Order: Is Peaceful Rise Possible? on 23 December 2011 jointly with the KPS Menon Chair, School of International Relations and Politics, MGU | ICSR, ICWA | Prof. Jia Haitao, Director, Institute for Chindian Studies, Jinan National University,Guangdong, Guangzhou, China<br>**Li Mingquan,** Professor& Vice –President, Sichuan Academy of Social Sciences (SASS), No. 155, West Section One, Ring One Road Chengdu, Sichuan Province, China |
| 139. | International Conference on China (CoC 2012) during 1-3 November 2012 on the theme The Rise of China: Policy Parameters and Prospects jointly with the Indian Council of World Affairs (ICWA), New Delhi, Association of Asian Scholars (AAS), New Delhi and the Institute of Chinese Studies (ICS), New Delhi | ICSR, ICWA, MG University | **Huan Yinghong,** Associate Professor at the School of International Relations, Sun Yat-sen University, P.R.China<br>**Yue Zhaomin,** Associate Professor, Sichuan Academy of Social Sciences, China. Faculty and Secretary General of the "Centre for India Studies", China<br>**Ji Mengxue,** Sichuan Academy of Social Sciences (SASS), No. 155, West Section One, Ring One Road Chengdu, Sichuan Province, China |

| 140. | International Symposium on the theme Political Transition in China and the United States – Implications for India on 28 February 2013 jointly with the KPS Menon Chair | MG University | **Li Jingfeng,** Sichuan Academy of Social Sciences (SASS), No. 155, West Section One, Ring One Road Chengdu, Sichuan Province, China **Chen Jixiang,** Sichuan Academy of Social Sciences (SASS), No. 155, West Section One, Ring One Road Chengdu, Sichuan Province, China **Nie Wenjuan,** Associate Professor, Institute of International Relations, China Foreign Affairs University. |
|------|------|------|------|
| 141. | National Seminar on the theme "Understanding China: Indian Perspectives" jointly with the Nelson Mandela Chair for Afro-Asian Studies, SIRP and the Chennai Centre for Chinese Studies during February 2015. It was attended by around 20 invited scholars. | MG University CCCS, Chennai | Prof. Srikanth Kondapalli, Jawaharlal Nehru University, New Delhi Amb. Vinod C. Khanna from New Delhi, Sri. Venu Rajamony, IFS from the Ministry of External Affairs; Sri. T.P. Sreenivasan, IFS, Former Indian Ambassador, Sri. Muraleedharan Nair formerly Consul General at Indian Mission at Guangzhou, China, |
| 142. | Conference on the theme "Engaging Diaspora" jointly with the Nelson Mandela Chair for Afro-Asian Studies, SIRP during March 2015. | MG University KSHEC, Thiruvanathapuram. | Prof. Srikanth Kondapalli, Prof. of Chinese Studies at Jawaharlal Nehru University (JNU), New Delhi, Prof. Madhu Bhalla, Prof. of Chinese Studies at Delhi University, Prof. V. Suryanarayan, President, Chennai Centre for China Studies, Chennai, Dr. D.S. Rajan, Director, Chennai Centre for China Studies, |
| 143. | Associated with an International Conference on 'Understanding | MG University | Dr.T.G. Suresh, Associate Professor, Centre for Political Studies, JNU, |

| | | | Sri. R. Hariharan, Former Chief of Military Intelligence, Government of India, |
|---|---|---|---|
| | Contemporary India' organized by the Rajiv Gandhi Chair for Public Policy Studies, School of International Relations and Politic s& University Centre for International Co-operation, Mahatma Gandhi University during 14-15 January 2016. | | Sri.K. Subrahmaniam, Former Joint Secretary (Retd.) Dept. of Economic Affairs, Government of India, |
| | | | Prof. R.S. Vasan, Director, Chennai Centre for China Studies |
| **KN Raj Centre for Planning and Centre – State Financial Relations** | | | |
| 144. | Seminar "Emerging Kerala and the Budget 2013-14" -Seminar and Symposium on 22 March 2013. | MG University | Prof. M.A. Oommen, Dr. K.K. George, Prof. K.J. Joseph, Prof. K.N. Harilal, Sri. C.P. John, Prof. Martin Patrick et al. and Sri. K. M. Mani |
| 145. | Colloquium on "Contours of Centre-State Financial Relations and the Budget 2014-15 | MG university | Prof. K.N. Harilal (CDS), C.P. John (Planning Board), Prof. Rajan Varughese (former PVC), R. Mohan (Ministry of Finance, Govt of India), Shyjan D (CDS), Prof. Thomas Isaac, former finance minister and Sri. K.M. Mani |
| 146. | Colloquium on the "Union Budget: Challenges and Opportunities" 11 July 2014 | MG university | Dr. Jayan Jose Thomas, Associate Professor, Indian Institute of Technology, New Delhi. Dr. Alexander Eapen, Director of Research, Australian National University, Sri. K.T. Chacko former Director, Indian Institute of Foreign Trade, New Delhi, Dr. Jose Naduthotty, KNRC and Dr. B. Ekbal |
| 147. | Collaborative Seminar with UC College | UC college | Dr. Anuradha Balaram (Advisor to the State Planning Board), Dr. Praveen Jha (Jawaharlal Nehru University), Dr. K. K George, Dr. M.A. Oommen, Dr.D.Narayana (former Director, GIFT), Dr.. CA Antony, CUSAT, Mr. Mohan, Ministry of |

| | | | |
|---|---|---|---|
| | | | Finance, Dr. Rajan Varughese et al. Dr. Amit S Ray, Director, Centre for Development Studies |
| 148. | Kerala Development Oxymora: External Source<br><br>Goods and Service Tax (GST): Implications for Kerala Economy | ICSSR<br>Institute of Parliamentary Studies (IPS) | Prof C P Chandrashekhar, Professor of Economics, J.N.U New Delhi<br><br>Prof. M A Ommen, Indian Social Institute, Delhi |

## 3.2 Resource Mobilization for Research

### 3.2.1 What are the financial provisions made in the university budget for supporting student's research projects?

**University Fellowships for Research:**

The University provides fellowship to Research Scholars who have been registered for their Ph.D programme (and who are not availing any other fellowships)

| Sl.No | Financial year | No.Candidates |
|---|---|---|
| 1 | 2010-11 | 120 |
| 2 | 2011-12 | 160 |
| 3 | 2012-13 | 106 |
| 4 | 2013-14 | 257 |
| 5 | 2014-15 | 200 |
| 6 | 2015-16 | 230 |

**Fellowships from funding agencies (UGC/CSIR JRF/SRF):**

| Sl.No | Financial year | No.Candidates |
|---|---|---|
| 1 | 2010-11 | 44 |
| 2 | 2011-12 | 44 |
| 3 | 2012-13 | 134 |
| 4 | 2013-14 | 177 |
| 5 | 2014-15 | 202 |
| 6 | 2015-16 | 176 |

**Other Fellowships**

| Sl.No | Financial year | DST INSPIRE | ICSSR SRF | ICSSR PDF | RFSMS | RGNF | KSCSTE |
|-------|----------------|-------------|-----------|-----------|-------|------|--------|
| 1 | 2010-11 | 0 | - | - | 15 | 21 | 05 |
| 2 | 2011-12 | 1 | - | - | 16 | 26 | 05 |
| 3 | 2012-13 | 2 | - | - | 21 | 22 | 08 |
| 4 | 2013-14 | 7 | 1 | 1 | 22 | 13 | 12 |
| 5 | 2014-15 | 12 | - | 1 | 19 | 09 | 12 |
| 6 | 2015-16 | 9 | - | 1 | 11 | 04 | 09 |

**Funds from External funding Agencies**

| Sl.No | Name of School /Department | Total amount recieved from various funding agencies |
|-------|----------------------------|------------------------------------------------------|
| 1 | Behavioural Sciences | Rs 4.665 Lakhs |
| 2 | Biosciences | Rs 858.204 Lakhs |
| 3 | Chemical Sciences | Rs 828.556 Lakhs |
| 5 | Environmental Sciences | Rs 313.36 Lakhs |
| 6 | Gandhian Thought & Developmental Studies | Rs 44.93 Lakhs |
| 7 | International Relation & Politics | Rs 42.90 Lakhs |
| 8 | Letters | Rs 17.342 Lakhs |
| 9 | Management & Business Studies | Rs 3.00 Lakhs |
| 10 | Pedagogical Sciences | Rs 4.665 Lakhs |
| 11 | Pure & Applied Physics | Rs 325.27656 Lakhs |
| 12 | Tourism Studies | Rs 11.11 Lakhs |

| Sl.No | Name of centre | Total amount recieved from various funding agencies (Rupees) |
|-------|----------------|--------------------------------------------------------------|
| 1 | IIUCNN | 1594.74285 Lakhs |
| 2 | CHPC | 40.00 Lakhs |
| 3 | ACESSD | 76.00 Lakhs |
| 4 | AMMRC | 5.20 Lakhs |
| 5 | ICCS | 25.00 Lakhs |
| 6 | IUIC | 650.00 Lakhs |
| 7 | KNRaj | 8.73 Lakhs |

**Details of Funds from External Funding Agencies**
**State Plan Funds for Infrastructure development**

| Year | Funding agency | Total grant received (Rs in Lakhs) |
|------|----------------|-------------------------------------|
| 2011-12 | State Plan Fund | 2.50 |
| 2012-13 | State Plan Fund | 1.40 |
| 2013-14 | State Plan Fund | 1.60 |
| 2014-15 | State Plan Fund | 21.50 |
| 2015-16 | State Plan Fund | 22.00 |

**3.2.2 Has the university taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?**

Two"Outreach programmes were conducted on facilitating innovation and patent filing on 29th February 2016 and 19th August 2016. This was organised by Inter University Centre for intellectual property right studies, Cochin University of Science and Technology, hosted by Mahatma Gandhi Uinversity.

| SL. No | Patents Granted |
|--------|-----------------|
| 1. | Photosensitizers and use thereof for generating hydrogen from water. N. Stefan, D. Uwe, B. Jens, H. Sascha, B. Matthias, Z. Horst-Werner, G. Felix, C. Daniela, D. Stefania,G. Anilkumar, L. Sebastian, J. Henrik, G. Serafino, B. Matthias US patent. US 2014/0023582 A1. (2014) Verfahren zur katalytischen oxidation von Wasser. *G. Anilkumar*, S. Losse, S. Gladiali, N. Marquet, F. Gartner, S. Dennura, H. Junge, M. Beller, D. Cozzula, **German patent. DE 10 2011 079424 A1 (2013)** |
| 2. | Process for catalytic oxidation of water. N. Marquet, *G. Anilkumar*, F. Gartner, S. Losse, S. Dennura, D. Cozzula, S. Gladiali, M. Beller **International Patent. WO 2013/010902 A1 (2013)** |
| 3. | Photosensitizers and use thereof for generating hydrogen from water. N. Stefan, D. Uwe, B. Jens, H. Sascha, B. Matthias, Z. Horst-Werner, G. Felix, C. Daniela, D. Stefania,*G. Anilkumar*, L. Sebastian, J.Henrik, G. Serafino, B. Matthias **International Patent.WO 2012/065833 A1. (2012)** |
| 4. | Photosensibilisatoren und deren Einsatz zur wasserstoffereugung aus wasser. N. Stefan, D. Uwe, B. Jens,H. Sascha, B. Matthias, Z. Horst-Werner, G. Felix, C. Daniela,D. Stefania, *G. Anilkumar*, L. Sebastian, J. Henrik, G. Serafino, B. Matthias **European Patent. DE 10 2010044155 A1. (2012)** |
| 5. | Fibre reinforced composites with toughened epoxy matrix and a process for preparing the same, Application 940/CHE/2006, published 2007-12-07. Vattikuti Lakshmana Rao, Bejoy Francis, Rajagopal Ramaswamy, Kavoor Ninan Ninan, *Sabu Thomas*.**Patent no. 276350, date of grant 17/10/2016.** |
| 6. | Verfahren zur katalytischen oxidation von Wasser. *G. Anilkumar*, S. Losse, S. Gladiali, N. Marquet, F. Gartner, S. Dennura, H. Junge, M. Beller, D. Cozzula, German patent. DE 10 2011 079424 A1 (2013 |
| 7. | Photosensitizers and use thereof for generating hydrogen from water. N. Stefan, D. Uwe, B. Jens, H. Sascha, B. Matthias, Z. Horst-Werner, G. Felix, C. Daniela, D. Stefania,*G. Anilkumar*, L. Sebastian, J. Henrik, G. Serafino, B. Matthias US patent. US 2014/0023582 A1. (2014) |
| | **Patents filed** |
| 1. | Biodegradable, Biocompatible Wound Healing Dressing Film and ointment from the Biocomposite of Marine Origin, Indian Patent application: 840/DEL/2013, M.Kurup and *Sabu Thomas* |

| 2. | A polymer Nanocomposite, Process And Application there-of ,WIPO Publication number: WO2016142848 A1, Publication date: Sep 15, 2016, and Indian patent Application No: 638/DEL/2015 Mohammed Arif P, *Sabu Thomas*, *Nandakumar Kalarikkal* |
|---|---|
| 3. | Highly gas impermeable elastomeric rubber- rubber blend nanocomposite, Indian Patent Application no: 135/CHE/2012, *Sabu Thomas, Ajesh K. Zachariah*, P.K. Mohammad, Arup Kumar Chandra. |
| 4. | Method for improving the comparative tracking index of polymer composites, Indian patent Application No:239/CHE/2014, Harinarayanan Puliyalil, Uros Cvelbar,MiranMozetic, *Sabu Thomas*. |
| 5. | *Ibnusaud and Sarath Muralidharan Pillai*.Enatiopure total synthesis of indolizinoindole alkaloid (+) harmicine and (-) harmicine from (2S,3R)-Tetrahydro-3-hydroxy-5-oxo -2,3-furandicarboxylic acid (Hibiscus acid ) and (2S,3S)-Tetrahydro-3-hydroxy-5-oxo -2,3-furandicarboxylic acid(Garcinia acid).Indian Patent application No . 3682/CHE/2016 |
| 6. | Synthesis of(*R*)-(+)-Crispine Aand(*S*)-(-)-Crispine A from(2*S*,3*R*)- and (2*S*,3*S*)-Tetrahydro-3-hydroxy-5-oxo-2,3-furandicarboxylic acids, *Divya Sadasivan Nair, Deenamma Habel and Ibrahim Ibnusaud,* **Indian Patent application No. 3484/CHE/ 2016S** |
| 7. | A Process for Making AP –based Composite Propellent with Active Copper Oxide as Burn Rate Modifier". No.241/MAS/97 Inventors-*Suresh Mathew, T. L. Varghese and K. N. Ninan* |

### 3.2.3 Provide the following details of ongoing research projects of faculty:

Total number of ongoing projects: 58

| Sl. No. | Title of the Project | Period | Funding agencies | Total Fund (Rs in Lakhs) |
|---|---|---|---|---|
| **School of Biosciences** | | | | |
| 1. | Studies on molecular and chemical basis of plant growth promoting and antiphytopathogenic properties of rhizosphere microorganisms | 2015-2018 | KSCSTE | 25 |

| No. | Title | Year | Agency | Amount |
|---|---|---|---|---|
| 2. | Identification, isolation and characterization of Acyl Homoserine Lactone-mimic compounds from selected plants | 2015-2017 | KSCSTE | 6.9 |
| 3. | Explorations of honey bee gut microbiota for industrial and therapeutic applications' (SB/EMEQ-137/2013) | 2013-2017 | DST-SERB, New Delhi. | 30 |
| 4. | Bioremediation of chlorpyrifos by autochthonous bacterial consortia | 2016-2019 | KSCSTE | 22.94 |
| 5. | Investigating the mechanism behind the protective effect of the anticancer compounds isolated from *Woodfordia fruticosa* Kurz. Flowers against hepatocellular carcinoma. | 2016-2019 | KSCSTE | 22 |
| 6. | Purification and characterization of Bacteriocin produced by Lactic Acid Bacteria isolated from Natural sources | 384/p and D-II/1/2016/ADMN | UGC | 5 |
| **7.** | Boost to University Interdisciplinary Life Science Departments For Education And Research (BUILDER) | **2012-2017** | BT/PR4800/INF/22/152/2012 DBT | 450 |
| **School of Chemical Sciences (SCS)** | | | | |
| 8. | Nano membrane for water purifications | 2013-2014 | DST-Kothari PDF | 17.00 |
| 9. | Nanocellulose water | 2015- | DST-Kothari | 17.00 |

| | | | | |
|---|---|---|---|---|
| | purifications | 2016 | PDF | |
| 10. | Nanocomposites | 2015-2018 | DST-Kothari PDF | 17.00 |
| **School of Environmental Sciences** | | | | |
| 11. | Perchlorate contamination of drinking water resources in Kerala | 2016-2019 | KSCSTE, Govt. of Kerala | 22.5 |
| 12. | Investigation of the special distribution of uranium and associated water quality parameters in five central districts of Kerala | 2015 onwards | BRNS | 22.92 |
| 13. | Long Term Environmental Monitoring of Fjord Ecosystems, Ny-Ålesund (Arctic) | ESSO-NCAOR, MoES | 2016-2017 | Logistic support |
| **School of International Relations and Politics** | | | | |
| 14. | WTO, TRIPS and South Asia | 2014 | UGC | 8. 7 |
| **School of Pedagogical Sciences** | | | | |
| 15. | Analysis of Performance-Based Assessment of English: A study Among Secondary School Teachers of Kerala | | UGC | 1.1 |
| 16. | Programme Design and Implementation of an Idylic Classroom Culture of Thinking Through Designated Mechanisms to Engage Teacher Educands at Secondary Level In Peace Building Activities | | UGC | 1 |
| 17. | "Teaching Mathematical Thinking Through E-Contents in Mathematics | | UGC | 2.56 |

| | among Secondary School Students" | | | | |
|---|---|---|---|---|---|
| **School of Pure and Applied Physics (SPAP)** | | | | | |
| 18. | Nanoparticleaggregationbehaviorin polymer nanocomposites | 2014-2017 | UGC-DAE-CSR Kolkata | 7.894 | |
| 19. | Physics ofCavitation Bubbling andHydrogen Generation during Liquid Phase Laser Ablation | 2016 -18 | BRNS | 34.96576 | |
| 20. | SolGelShapingofnanostructuresandtheir characterization ofPlasmonic application | 2014-17 | KSCSTE | 15.0 | |
| **School of Social Sciences** | | | | | |
| 21. | "Self-Help Groups in Kerala: A Study in Economic Sociology" | 2015-17 | UGC, New Delhi | 3.5 | |
| 22. | "Theyyam Kettu of Kerala: The Economy and Labour of Performance" | | ICSSR, New Delhi | 9 .00 | |
| 23. | Archives sans Borders MGU | 2016-17 | Government of Kerala | 23.70 | |
| 24. | ABILITY Project for Physically Challenged and Visually Impaired | | Government of Kerala | 83.00 | |
| **School of Tourism Studies** | | | | | |
| 25. | Making Kerala's Tourism destinations with minimal disaster risk: a geographic approach" | 2016-18 | (ICSSR) Indian Council of Social Science Research | 8.00 | |
| **International and Inter University Centre for Nanoscience and Nanotechnology** | | | | | |
| 26. | Rod-coil type block copolymers and their | 2016-2018 | DST-Kothari | 17.00 | |

| | | | | |
|---|---|---|---|---|
| | composites as functional nanostructured materials for soft electronics | (3 Years) | PDF | |
| 27. | Development of a magnetic field sensor based on multiferroic laminar composite | 2016-2018 (3 Years) | DST-Kothari PDF | 17.00 |
| 28. | Poly(lactic acid) nanocomposites for packaging applications | 2015-2018 (3 Years) | DST-Kothari PDF | 17.86 |
| 29. | Development of ZnO based solar cells sensitized by dyes and biological molecules | 2015-2018 (2 years) | DST-Kothari PDF | 20.00 |
| 30. | Polymer Quantum Dot aptamer hybrid conjugate for hepatocellular carcinoma cell imaging application | 2015-2017 (2 years) | KSCSTE - PDF | 9.44 |
| 31. | Size dependent antimicrobial activity and mode of action of nanoparticles emphasized with Ag nanoparticles against multiple drug resistant pathogens | 2015-2018 (3 Years) | DST-Kothari PDF | 20.16 |
| 32. | Novel thermoplastic elastomer composition for neutron shielding applications | 2015 – 2017 (2 Years) | DAE, BRNS | 34.66 |
| 33. | Engineering biopolymeric twin skip patch (tsp) matrices for wound healing applications | 2015-2018 (3 Years) | DST-Kothari PDF | 17.00 |
| 34. | Hybrid nanocomposites of natural rubber/chlorobutyl rubber blends for automotive inner liners and inner tubes | 2014-2016 (3 Years) | DST-Kothari PDF | 18.20 |
| 35. | Engineering of nano-structured high performance epoxy/liquid | 2014 – 2017 (3 Years) | CSIR | 14.92 |

| | rubber blends with controlled nanoparticle localisation | | | |
|---|---|---|---|---|
| 36. | Development of super tough Thermoset from self-assembled nanostructured block copolymer/epoxy resin blends | 2014 – 2017 (3 Years) | DRDO | 29.62 |
| 37. | Miscibility, morphology and properties of NR/SBR and BR based binary and ternary rubber blends and the influence of carbon black and silica filler distribution on blend properties | 2014 – 2017 (2.5Years) | MRF | 3.00 |
| 38. | Design and applications of magnetically responsive self-assembled polymer nanocomposites | 2016-2019 (3 Years) | DST Nano Mission | 200.00 |
| 39. | Physics of Cavitation Bubbling and Hydrogen Generation during Liquid Phase Laser Ablation | (2015-2017 Years) | BRFST-BRNS | 34.96 |
| 40. | Development of one-dimensional multi-ferroic nanocomposites for device applications | 2015 - 2017 | KSCSTE | 10.00 |
| 41. | AuNP/LDH core shell nanoparticles a novel multifunctional candidate for gene delivery | 2016-2018 (2 Years) | KSCSTE | 15.00 |
| 42. | Plant Lipids India Ltd | 2016-2017 | India | 3.50 |
| 43. | Studies on cellulose nanocrystals and their applications in nanocomposites with varying technological applications | 2014 – 2017 (3 Years) | DST (Indo-Brazil) International Bilateral co-operation | 27.29 |
| 44. | Biobased scaffold, membrane and hydrogel for improved wound | 2017-2019 | International project-Swedish Research Links- | 8 |

| | | | | |
|---|---|---|---|---|
| | healing and bone regeneration (BIOHEAL) (International ) | | (Indian Collaborator)- | |
| **Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)** | | | | |
| 45. | Polyelectrolyte multilayer membrane for the treatment of paper mill effluent | | KSCSTE, Govt. of Kerala | 26.00 |
| 46. | Nano skinned coir matrix for the removal of biological contaminants from water | 2016-2019 | DST | 31.09 |
| 47. | Nanofiber structure for efficient immobilization in membrane application | 2016-2020 | Technical University of Denmark | 4.26 (per year) |
| **Inter University Centre for Biomedical Research & Super Specialty Hospital** | | | | |
| 48. | Association of Monoamine Transporter Genes with Autism: Special Reference to Equilibrative Nucleoside Transporter 4 (ENT4 or SLC29A4) and Vesicular Monoamine Transporter-2 (VMAT-2 or SLC18A2) genes | 3 Years, Feb 2015 - Jan 2018 | Indian Council of Medical Research (ICMR), Govt. of India | 27.70 |
| **Inter University Centre for Social Science Research and ExtensionIUCSSRE** | | | | |
| 49. | Writing Dalit lives: Anthology of Women's Voices from Kerala | | ICSSR, New Delhi | 7.5 |
| 50. | Trans-formation of Land and Landscapes of Kerala: Locality Studies | | Higher Education Council, GoK | 75 |
| 51. | Women's Struggle: A Documentation of Feminist Movement in Kerala | | Higher Education Council, GoK | |

| 52. | Traditional Healing in a 'Modern Society: A Study on Policy, Practices and Pedagogy of Selected Healing Traditions in Kerala | | Higher Education Council, GoK | |
|-----|-----|-----|-----|-----|
| 53. | Human Ecological Studies Of Indigenous Communities in the Southern Western Ghats | | Higher Education Council, GoK | |
| **Advanced Molecular Materials Research Centre AMMRC** | | | | |
| 54. | "Propellant Burn rate modifiers (PI: Prof. Suresh Mathew, Co-PI: Dr. P. Radhakrishnan Nair) | 2016-18 | ISRO | 19.20 |
| 55. | "Study of fundamental Chemical and Physical properties of magnetic ionic liquid nanofluids". collaboration with Department of Physics, Rzeszow University of Technology, Poland (PI: Prof. Suresh Mathew) | 2015-17 | DST, Govt. of India & (funding agency in poland) | 5.10 |
| **KN. Raj Centre for Planning and Centre-State Relations (KNRC)** | | | | |
| 56. | WTO, Public Health and South Asia: A study with particular reference to India | 2016-2018 | UGC major project | 8.89 |
| 57. | Business Innovation and student start up | 2016-2017 | Govt. of Kerala | 100 |
| 58. | Conducting Training programmes | 2016-17 | Collaboration with Gulati Institute of Finance and Taxation, Trivandrum; | Collaborative projects |
| | | **Total** | **Rs.1679.03 lakhs** | |

**3.2.4 Does the university have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agencyand grants received.**

**Industry Linked projects:**

| Sl.No. | Project Title | Period | Funding agencies | Total Fund Rs. In lakhs |
|---|---|---|---|---|
| School of Biosciences |
| | Molecular mechanism of antidiabetic activity of *Costus pictus.* Under Industry linked Biotechnology programme, (Sanctioned by Kerala Biotechnology Commission, Kerala. | 2014-2017 | Industry Partner-Arjuna Natural Extracts, Alwaye; | 19.00 |
| School of Chemical Sciences (SCS) |
| 1. | Nanofillers in Polymeric systems | 2010-11 | General cables, USA | 1.5 |
| School of Tourism Studies |
| 2. | Project for Mango Languages | 2011 – 12 | Mango Languages, USA | 0.75 |
| International and Inter University Centre for Nanoscience and Nanotechnology |
| 3. | Miscibility, morphology and properties of NR/SBR and BR based binary and ternary rubber blends and the influence of carbon black and silica filler distribution on blend properties | 2014 – 2017 (2.5Years) | MRF | 3.00 |
| 4. | Plasma modifcaation of polymers | 2010-2012 | Surface treat, Czech republic | 5.00 |
| 5. | Curcumin nanocomposite for biomedical applications | 2016-2017 | Plant Lipids India Ltd. Ernakulum, India | 3.50 |
| **Total** | | | **Rs.32.75 lakhs** | |

**3.2.5. How many Departments/School of the university have been recognized for their research activities by national / international agencies (UGC-SAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any twosignificant outcomes or breakthroughs achieved by this recognition.**

| Sl. No. | Title of the Project | Duration | Funding Agency | Grant Received (Rs. In Lakhs) |
|---|---|---|---|---|
| **School of Biosciences** | | | | |
| | SARD Programme | (2014-2017) | KSCSTE | 22 .00 |
| | DST PURSE | 2nd Phase | DST | 225.00 |
| | DST FIST | 1 level | DST | 130.00 |
| | Boost to University Interdisciplinary Life Science Departments For Education And Research (BUILDER) | 2012 | BT/PR4800/INF/22/152/2012 DBT | 450.00 |
| **School of Chemical Sciences (SCS)** | | | | |
| | UGC XI and XII Plan funds | 2010-2016 | UGC | 40.00 |
| | DST FIST | 2012-2016 | DST | 175 .00 |
| | State Annual Plan Fund | 2010-2016 | Govt of Kerala | 74.00 |
| | UGC SAP | 2012-2016 | UGC | 75.00 |
| | DST PURSE | 2nd Phase | DST | 225.00 |
| **School of Environmental Sciences** | | | | |
| | To strengthen the post-graduate teaching and research facilities in the Environmental Chemistry area | 2012-2017 | DST | 85.00 |
| | L.C/M.S,Petrological Microscope FIST | | DST | 90.00 |

| | | | | |
|---|---|---|---|---|
| | Investigation of the intermediates and final products of chemical and biological treatment of contaminated water and solid wastes | 2012-2014 | KSCSTE- SARD, Govt. of Kerala | 29.00 |
| | Infrastructure development for science departments | 2012 | DST-PURSE | 225.00 |
| | Infrastructure development | 2012 | DoECC | 5.00 |
| | DST PURSE | 2<sup>nd</sup> Phase | DST | 225.00 |
| | Obama Singh 21<sup>st</sup>Century Knowledge Initiative | 2012-2015 | UGC | 62.5 |
| **School of Gandhian Thought And Development Studies** ||||| 
| | UGC – SAP | | UGC – SAP | 24. 00 |
| | ICSSR | | ICSSR | 16.00 |
| | UGC | | UGC | 12.00 |
| **School of International Relations and Politics** ||||| 
| | MA Public Policy and Governance | 2010-15 | UGC | 21.00 |
| **School of Management and Business Studies** ||||| 
| | Towards Infrastructure | | UGC | 15.00 |
| **School of Pure And Applied Physics (SPAP** ||||| 
| | DST–FIST To strengthen the post graduate, teaching and research facility in the department | 2010-15 | DST | 40.00 |
| | UGCSAPDRS PhaseI | 2009-14 | UGC | 62.40 |
| | UGCSAPDRS PhaseII | 2016-21 | UGC | 103.00 |
| | DST PURSE | 2<sup>nd</sup> Phase | DST | 225.00 |

| | | | School of Physical Education & SportsSciences | |
|---|---|---|---|---|
| | Sports Hostel | | UGC | 200.00 |
| | Swimming Pool | | UGC | 225.00 |
| | Tennis Court | | UGC | 25.00 |
| | Purchase of Sports Equipment | | UGC | 25.00 |
| | Sports Laboratory | | UGC | 25.00 |
| | | School of Tourism Studies | | |
| | State Annual Plan Fund | 2015-2016 | Govt of Kerala | 200.00 |
| | Research project | 2016-2018 | ICSSR | 8.00 |
| | | International and Inter University Centre for Nanoscience and Nanotechnology | | |
| | Nanoscale Materials for water purification and fabrication of nano composites for Biomedical application | 2016-2019 (3 Years) | Govt. of Kerala Plan fund 2015-16 | 100.00 |
| | University-Industry Collaboration and Development of New Technologies | 2015-2017 | Govt. of Kerala Plan fund 2015-16 | 40.00 |
| | Online course on Introduction to Nanoscience and Nanotechnology | 2015-2017 | Govt. of Kerala Plan fund 2015-16 | 50.00 |
| | Visvesvaraya PhD Scheme for Electronics and IT | 2015-2020 (5 Years) | MeitY | 89.77 |
| | KSCSTE under SARD Project | 2010-2013 | KSCSTE | 30.00 |
| | | Inter University Centre for Biomedical Research & Super Specialty Hospital | | |
| | Drugs from Ayurveda herbs | | DBT | 20.00 |
| | | Inter University Instrumentation Centre (IUIC) | | |
| | National Centre (Sophisticated Analytical Instrument Facility- SAIF) | 2015 | DST | 650 |

| Institute for Contemporary Chinese Studies (ICCS) | | | | |
|---|---|---|---|---|
| | Kerala Government | | Kerala Government | 25.00 |
| | UGC | | UGC | 25.00 |
| **Institute for Intensive Research in Basic Sciences (IIRBS)** | | | | |
| | KSCSTE under SARD Project | .2014 | KCSTE under SARD Project Order No.524/2014/KCSTE dated 04.10.2014 | 30.00 |
| **KN. Raj Centre for Planning and Centre-State Relations (KNRC)** | | | | |
| | ICSSR, Delhi | 2015 | ICSSR for holding national seminar | 2.50 |
| | Institute of Parliamentary studies | 2015 | For conducting symposium on GST | 1.00 |
| **Total** | | | **Rs. 4427.17 lakhs** | |

The recognition received from external agencies has helped the university to come up with significant contributions in the higher education sector in the form of patents, high impact publications etc. The alumni of the University hold prominent positions in academia, research and industrial organisations and serve the society in different capacities in India and abroad.

**3.2.6 List details of**

> **a. Research projects completed and grants received during the last six years (funded by National/International agencies).**
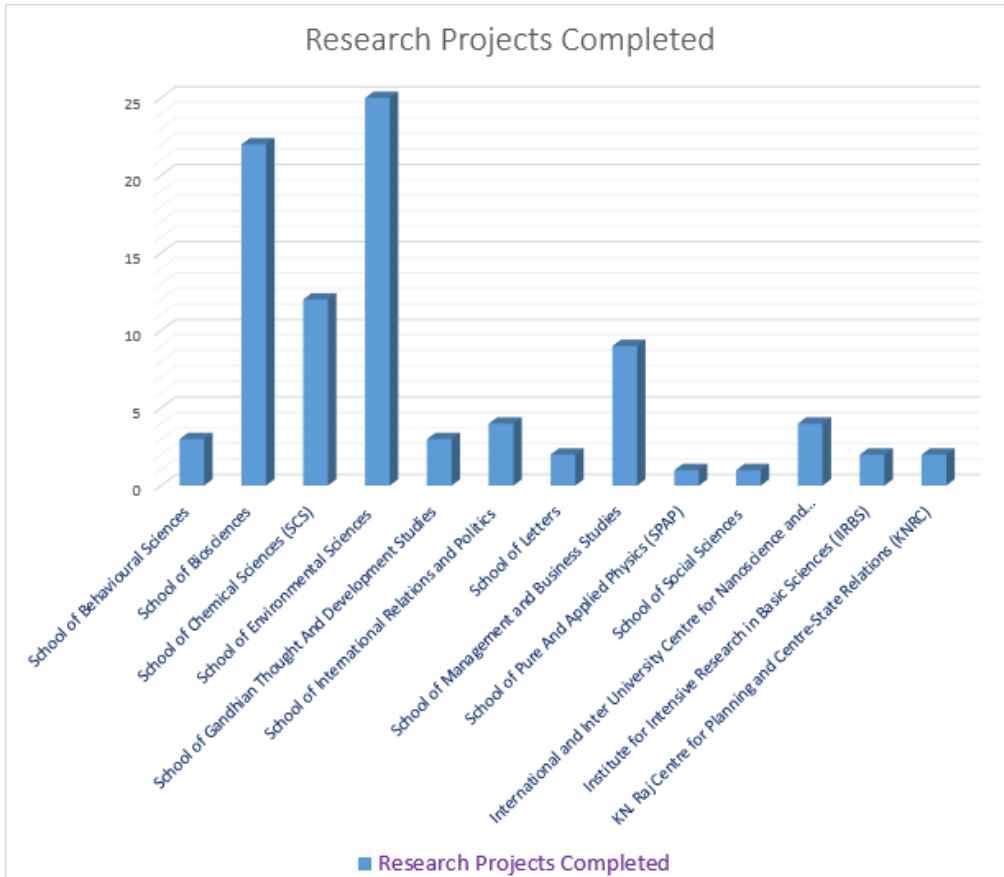


Research Projects Completed

| Sl. No | Title of the Project | Period | Funding agencies | Total Fund (Rs in Lakhs ) |
|---|---|---|---|---|
| **School of Behavioural Sciences** | | | | |
| 1. | High School Students with Dyslexia (Dr. Rajeevkumar N) | 2013-15 (18 months) | ICSSR – New Delhi | 4.00 |
| 2. | Exclusive tendency in Inclusive Education (Dr. K.Muhamad Mustaffa) | (2014-15) | Sarva Siksha Abhiyan, Kerala. | 1.20 |
| 3. | Effectiveness of orientation | 2014-15 (12 months) | ICSSR – New Delhi | 5.00 |

| | | | | |
|---|---|---|---|---|
| | programme for teachers in the management of behavioural problems (M.S. Razeena Padmam) | | | |
| | **School of Biosciences** | | | |
| 4. | Barcoding and genetic diversity analysis of Clarias spp of Kerala | (2012-2015) | KSCSTE, | 14.7 |
| 5. | Production of phytoecdysteroids from the callus cultures of Achyranthes aspera | (2012-2015) | UGC | 12.6 |
| 6. | Safety Evaluation of the process of Chlorination in drinking water system with specific reference to Chlorination derived By-products | (2012-2014) | UGC | 9.6 |
| 7. | Acetyl Homoserine Lactone based quorum sensing and its biotechnological applications | (2012-2015) | KSCSTE | 16.5 |
| 8. | Studies on immunomodulatory effects of Acacia catechu | (2012-2015) | UGC | 11.1 |
| 9. | Molecular Exploration of Spice Associated Bacteria for Bioacitve metabolites and PKS-NRPS genes Acacia catechu | (2011-2014), | DBT | 15 |
| 10. | Molecular Studies on Biofilm formation in Coagulase Negative Staphylococci | (2011-2014) | ICMR | 22 |
| 11. | Studies on molecular and chemical basis of plant growth | (2015-2018) | KSCSTE, | 25 |

| | | | | |
|---|---|---|---|---|
| | promoting and antiphytopathogenic properties of rhizosphere microorganisms | | | |
| 12. | Evaluation of the protective effect of omega-3 fatty acid against arsenic trioxide induced cardiac toxicity in cancer therapy.Funding | (2011-2014), | UGC | 9.48 |
| 13. | Molecular Basis of Sodium Dodecyl Sulphate (SDS) Bioremediation & Bioreactor Designing | 2011-2015 | KSCSTE | 13.5 |
| 14. | Characterization of endophyticdiazotrop hic bacteria from rice (Oryzasativa) and assessment of their potential biocontrol of rice sheath blight disease | F. No. 41-1169/2012 2011-2015 | UGC | 13.9 |
| 15. | Production, Purification and Characterization of antagonistic principles of Potential Aquaculture probiotics | (2010-2013) | UGC | 10.78 |
| 16. | Exploration of honey bee gut microbiota for industrial and therapeutic applications | (SB/EMEQ-137/2013) | DST-SERB | 30. 3 |
| 17. | In vitro studies on inhibition of eicosanoid metabolism for control of arthritis by extracts of stem of Tinosporacordifolia | BT/PR14926/PBD/17/720/20 10 | DBT | 21.17 |
| 18. | Evaluation of methanolic extracts Elephantopusscaber for inhibitors of | 015/SRSLS/2010/CSTE | KSCSTE | 17 |

| | 5-lipoxygenase (5-LOX) and cyclooxygenase-2 (COX-2) | | | |
|---|---|---|---|---|
| 19. | Nattokinase-fibrinolytic and antihypertensive enzymes from novel bacterial isolates | 03/YIPB/KBC/2012/CSTE | KSCSTE | 4.73 |
| 20. | Chemotactic response of human Phagocytic cells (Polymorphonuclear leukocytes and monocytes) in tuberculosis patients | 37-599/2009 (SR). | UGC | 1.84 |
| 21. | Endomycorrhizal Studies in Musa Sp of South India | (2012-2015) | UGC | 13.5 |
| 22. | Collection, identification and screening of green algae from bloomed water bodies of Kerala for quality and quantity of lipids | 002/SRS/RCSE-24-2015/CSTE | KCSTE | 27 |
| 23. | Protective effect of Elephantopusscaber Linn. A traditional medicinal plant on hepatic fibrosis and hepatocellular carcinoma | (2009-2011) | KSCSTE | 10.92 |
| 24. | Isolation, characterization and evaluation of in vitro anticancer and antioxidant activities of polyphenols from kernel and oil from coconut | 1345/2011-TMOC | Coconut Development Board, Ministry of Agriculture, Govt. of India | 30.8 |
| 25. | Molecular mechanism of antidiabetic activity of Costuspictus | 025/IBRS/KBC/2013 | KSCSTE | 19 .00 |
| 26. | Molecular mechanism of hepato protective activity of Aervalanata | 006/SRSLS/2013/CSTE | KSCSTE | 10.78 |

| | **School of Chemical Sciences (SCS)** | | | |
|---|---|---|---|---|
| 27. | Development of high performance butyl rubber nano composites for barrier application | 2007-2011 | DST | 39.94 |
| 28. | Development of Thermoplastic Vulcanizates (TPVs) from Natural Rubber and polypropylene Blends for the Fabrication of Automotive Parts and shoe Soles | 2009-2012 | KSCSTE. | 14.70 |
| 29. | Synthesis And Applications of Star Block Copolymers, Dendrimers And Star Gel Containing Biocompatible Block | 2007-2011 | Council of Scientific & Industrial Research | 14.00 |
| 30. | Tuning the properties of stimuli sensitive copolymers- A step towards purification of water | 2009-2012 | SERC,DST | 28.35 |
| 31. | Development of biodegradable dual porous polymer nanocomposite scaffold | 2008-2011 | DBT, New Delhi | 58.59 |
| 32. | Carbon nanotube filled natural rubber nanocomposites. | 2010-2013 | UGC-DAE | 4.00 |
| 33. | Development of high performance rubber modified epoxy resin/clay nanocomposites | 2008-2011 | UGC,New Delhi | 8.89 |
| 34. | Acetic Anhydride Mediated Cyclodehydration of Various N-Substituted Maleamic Acids to Form Maleimido Derivatives – A Computational Study | 2012-2014 | UGC, New Delhi , | 25.00 |

| | | | | |
|---|---|---|---|---|
| 35. | Copper catalysed C-C, C-O and C-S bond formations using N and O containing bidentate ligands. | 2013-2016 | KSCSTE | 15.85 |
| 36. | High permoance polymer blend from epoxy resin and PTT for aerospace application | 2009-20012 | DRDO | 25.3 |
| 37. | Indo-Poland Collaborative Research Project, | 2013-2016 | DST, New Delhi | 5.42 |
| 38. | Hierarchial biocomposites from Isora fibres and unsaturated polyester | 2014-2016 | DST-Austria | 15.00 |
| 39. | Nano fillers in Polymeric systems | 2010-11 | General cables, USA | 1.5 |
| **School of Environmental Sciences** | | | | |
| 40. | National Vegetation Carbon Pool – Kerala Region | 2011-2013 | ISRO | 4.50 |
| 41. | Mercury geochemistry in agricultural wetland ecosystem | 2012-2015 | DST-SERB | 25.87 |
| 42. | Mercury pollution in the sediments of Vembanad Wetland: a chronological approach | 2012-2016 | UGC | 2.85 |
| 43. | Chemical transformation and bioaccumulation of Mercury in the Vembanad wetland ecosystem | 2008-2012 | MoES | 65.00 |
| 44. | Accumulation of Mercury and Cadmium in Benthic Food Web of Cochin Estuary - a Stable Isotope Approach | 2012-2015 | KSCSTE, Govt. of Kerala | 10.85 |

| 45. | Minor Project :Impact of Climate Change on the Mercury Geochemistry in a Tropical Wetland Ecosystem | 2012 | DoECC, Govt. of Kerala | 0.38 |
|---|---|---|---|---|
| 46. | Minor Project :Geochemistry of selected heavy metals in Kuttanad agricultural wetland ecosystem | 2013 | DoECC, Govt. of Kerala | 0.58 |
| 47. | Evolution of Karamana river basin and its implications on hydrogeology: A geomatics approach using morphometric analysis | 2013-2016 | KSCSTE-BTL, Govt. of Kerala | 15.96 |
| 48. | Pulse radiolysis of biomolecules | 2010-2012 | Indo-French ARCUS Project | 25.00 |
| 49. | Radiation and photochemical studies of chitosan modified polycyclicaromatic hydrocarbons (Environmental Pollutants) | 2009-2012 | BRNS | 15.00 |
| 50. | Sonochemical degradation of organic  water pollutants | 2012-2015 | KSCSTE | 14.2 |
| 51. | An investigation on the potential microalgal species for the production of biodiesel from Kuttanad wetland ecosystem, Kerala**.** | 2012-2015 | UGC | 5.49 |
| 52. | Nationwide Environmental Gamma Radiation Monitoring Using TLDs | 2014-2016 | BRNS | 10 |
| 53. | hytoremediation of Wastewater Contaminated With | 2012 | DOECC, Govt. of Kerala | 0.5 |

| | | | | |
|---|---|---|---|---|
| | Heavy Metals using Constructed Wetlands and Nutrient Film Technique (NFT) | | | |
| 54. | Household consumption pattern of selected resources in Ernakulam and Kottayam districts - A comparative assessment | 2012 | DOECC, Govt. of Kerala | 0.35 |
| 55. | Recovery of Energy and Manure from solid waste : a step towards mitigation of Climate Change | 2012 | DOECC, Govt. of Kerala | 0.6 |
| 56. | Carbon sequestration potential of selected Earthworm species | 2013 | DOECC, Govt. of Kerala | 0.6 |
| 57. | Estimation of Greenhouse Gas Emission from Wetlands and Paddy fields | 2013 | DOECC, Govt. of Kerala | 0.6 |
| 58. | Greenhouse Gas Emission from septic tanks : a preliminary assessment | 2013 | DOECC, Govt. of Kerala | 0.6 |
| 59. | Enzymatic saccharification of water hyacinth for the production of Bioethanol: An utilization approach for the control | 2013 | DOECC, Govt. of Kerala | 0.6 |
| 60. | Rhizosphere remediation of agro pollutants; An investigation from Kuttanad wetland ecosystem, Kerala | 2013 | DOECC, Govt. of Kerala | 0.6 |
| 61. | Mercury Geochemistry in the Sediments of Kongsfjorden, Ny-Alesund, Arctic | 2013-2015 | ESSO-NCAOR, MoES | Logistic support |

| 62. | Development of Self-contained, PV powered domestic toilet and waste water treatment system. | 2014-2015 | California Institute of Technology, USA | 11.4 |
|-----|-----|-----|-----|-----|
| 63. | Microbial Fuel Cells | 2014 | University of West of England (UWE), Bristol, UK | Nil. |
| 64. | An Interdisciplinary and Community Oriented Innovative Approach Towards Sustainable Development | 2012-2015 | UGC / Obama-Singh 21st century knowledge initiative/ with Brown University, Duke University and Plymouth State University | 62.5 |
| 65. | Pulse radiolysis of biomolecules | 2010-2012 | Indo-French ARCUS Project | 25 |
| **School of Gandhian Thought And Development Studies** | | | | |
| 66. | "Vulnerability of Elderly Widows in Kerala" (Dr.Sandhya R S) | 2011-12 | UGC | 7.27 |
| 67. | Impact of Public Policy and Rural Re-construction: An Analysis of Gandhian Approach (Dr. D. Nirmala Devi) | 2012-14 | UGC | 5.66 |
| 68. | "Human Rights & Tribal Development:A Comparative study on the Malaipandaram Tribes in Pathanamthitta and Kollam Districts in Kerala" (Smt. Manjusha KA) | 2015-16 | ICSSR | 20.00 |
| **School of International Relations and Politics** | | | | |
| 69. | Terrorism and Nuclear deterrence in South Asia: A Study on the Issues and Challenges in | 2010-12 | ICSSR | 3.93 |

| | India's National Security Strategy | | | |
|---|---|---|---|---|
| 70. | Major Research Project on "Statelessness, Citizenship and Human Security: A Study on the Repatriated Tamils in Kerala" | 2011-13 | ICSSR | 5.26 |
| 71. | Promoting India Study Programme in Mahatma Gandhi University | 2014-15 | Kerala State Higher Education Council | 9.78 |
| 72. | WTO, TRIPS and South Asia | 2014- | UGC | 8.70 |
| **School of Letters** | | | | |
| 73. | Creation of a web portal about Changampuzha Krishna Pillai | | UGC | 9.44 |
| 74. | The politics of power engendered by the new generation media in the language and culture of Kerala | | UGC | 7.89 |
| **School of Management and Business Studies** | | | | |
| 75. | A study on the marketing strategies adopted by small scale industries in Ettumannur. | 2012,          6 months | UGC | 0.15 |
| 76. | "Challenges And Opportunities In Back Water Tourism: A Case Study"., 2010-2012 | 2012,          6 months | UGC | 0.15 |
| 77. | Loan Portfolio of SHGs in Kerala | 2012,          6 months | UGC | 0.15 |
| 78. | A study on the entrepreneurial behavior of Kudumbashree units in Ettumannur Grama Panchayat | 2012,          6 months | UGC | 0.15 |

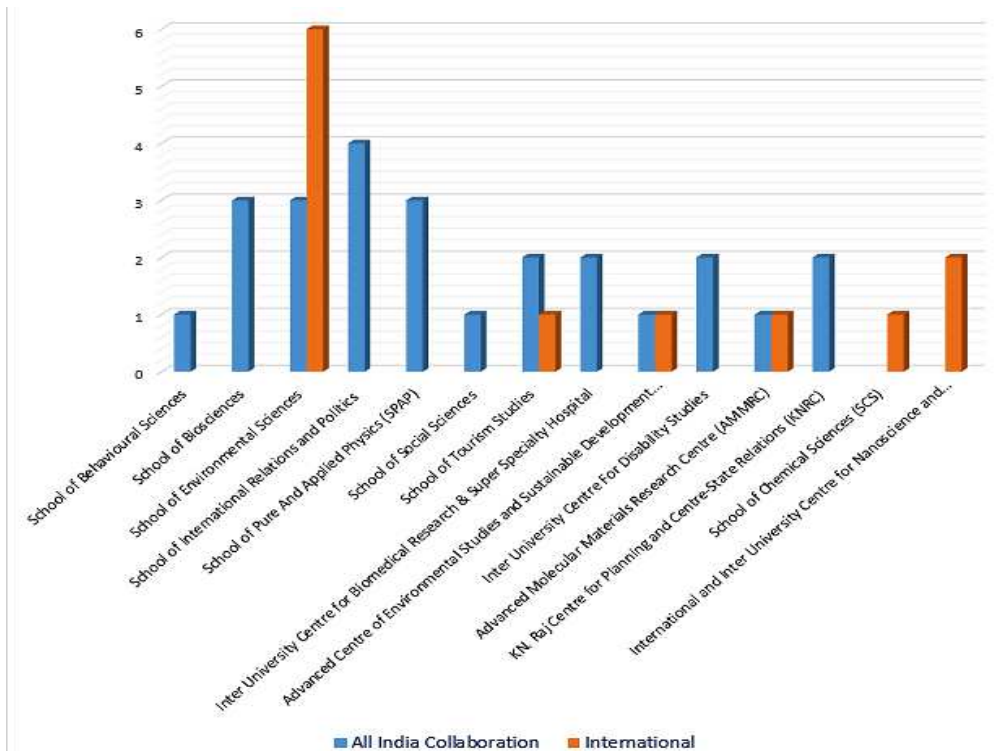| 79. | Utilization of internet and IT tools in the management of higher educational institutions. | 2012, 6 months | UGC | 0.15 |
|---|---|---|---|---|
| 80. | A Study on the working of Fisheries Cooperative Society in Kerala | 2011-13 | UGC | 5.00 |
| 81. | Financial sustainability of SHG in Kerala | 2011 | UGC | 1.00 |
| 82. | Minor Research Project on "Moving Object Databases | 2011 | UGC | 1.00 |
| 83. | "Sustainable Tourism: A Case Study On Kumarakom, Kerala" | 2011 | UGC | 1.00 |
| **School of Pure And Applied Physics (SPAP)** | | | | |
| 84. | Sol-GelSynthesis and characterization of tellurite based device materials | 2012-2015 | UGC-CSIR | 15.42 |
| 85. | Dr Nandakumar Kalarikkal Dynamics of Plasma plume evolution during laser ablation of metal targets in stationary and flowing liquid media | 2012-2015 | DST | 40.0 |
| **School of Social Sciences** | | | | |
| 86. | "Unfavorable Inclusion of Dalits in Higher Education: A Study on the Linkages of Colonies, Schools and Colleges in Kerala" | 2014-15 | Kerala State Higher Education Council, Government of Kerala | 1 .00 |

| | School of Tourism Studies | | | |
|---|---|---|---|---|
| 87. | Social Media as an influencer among foreign tourists visiting India | 2014 – 15 | Indian Institute of Tourism and Travel Management | 1.00 |
| **International and Inter University Centre for Nanoscience and Nanotechnology** | | | | |
| 88. | Development of multi walled carbon nanotube filled polycarbonate/ polypropylene double percolating conductive polymer blend nanocomposites for electromagnetic interference shielding Gaskets for mobile phones | 2012-2015 | MeitY | 41.82 |
| 89. | Development of engineered nanostructured materials for high performance application | 2010-2013 | DST Nano Mission | 524.06 |
| 90. | High performance nylon clay nanocomposites for dental applications | 2011-2014 | ICMR | 25.00 |
| 91. | Plasma modification of polymers | 2010-2012 | Surface treat, Czech Republic | 5.00 |
| 92. | Development of nanocomposites for aerospace defense and automotive applications, , | 2011 – 2014 | SARD – KSCSTE | 29.60 |
| **Institute for Intensive Research in Basic Sciences (IIRBS)** | | | | |
| 93. | Synthesis of few Medicinally Important Chiral Molecules Derived from Renewable Resources | 2012-15 | DST, Govt. of India, Project No.SR/S1/OC-98/2012–dated 07.03.2013 | 55 |
| 94. | Ex-chiral pool synthesis towards few molecules of Anticancer & Anti-tuberculosis Likeness | 2012-15 | CSIR Project No.02(0101)/12/EMR – II dated 31.102012 | 30 |

| | | KN. Raj Centre for Planning and Centre-State Relations (KNRC) | | |
|---|---|---|---|---|
| 95. | Free Trade Agreement and Agrarian Economy of India: A study with special reference to Kerala | 2010-2012 | UGC major project | 7 |
| 96. | Role of Institutions in the development of Plantation Agriculture. A study of Rubber producers' societies in India | 2014 | Centre for Development Studies | 0.75 |
| 97. | Asset Management in Local Governments | 2015-16 | World Bank/ Decentralisation and Analysis Cell , Govt. of Kerala | 2. 50 |
| **Total** | | | **Rs. 1821.35 lakhs** | |

b. **Inter-institutional collaborative projects and grants received:**
   **i) All India collaboration**

| Sl. No. | Project Title | Period | Funding agencies | Total Fund Rs in Lakhs |
|---|---|---|---|---|
| School of Behavioural Sciences | | | | |
| 1. | GFATM Project - SAKSHAM (The Global Fund to Fight AIDS, Tuberculosis and Malaria, Round 7, HIV/AIDS Counselling Programme) | 2009-14 | WHO programme funded through Tata Institute of Social Sciences (TISS), Mumbai | 93.12 |
| School of Biosciences | | | | |
| 2. | Boost to University Interdisciplinary Life Science Departments For Education And Research (BUILDER) | 2012 | BT/PR4800/INF/22/ 152/2012 DBT | 450.00 |
| 3. | Molecular mechanism of antidiabetic activity of Costuspictu (No. 025/IBRS/KBC/2013 Dated. 11.11.2013) | 2013 | Kerala Biotechnology Commission- KSCSTE- Industry Partner-Arjuna Natural Extracts. | 19.00 |
| 4. | Health promoting capabilities of potential probiotic strains isolated from infant gut   microflora | 2016 | ICMR ( Collobarative with Dr. Sabu Thomas, Scientist E II as CO-PI, Rajiv Gandhi Centre for Biotechnology) | 25.00 |
| School of Environmental Sciences | | | | |
| 5. | DAE-IUC | 2010-12 | Heavy ion induced modification of DNA and its components | 3.5 |
| 6. | National Vegetation Carbon Pool – Kerala Region | 2011-2013 | IIRS, ISRO | 4.5 |
| 7. | Nationwide Environmental Gamma Radiation Monitoring Using TLDs (A National Mission programme) | 2014-2016 | BRNS | 10.00 |

| 8. | Investigation of the spatial distribution of uranium and associated water quality parameters in five central districts of Kerala | 2015 onwards | BRNS | 22.92 |
|---|---|---|---|---|
| **School of International Relations and Politics** | | | | |
| 9. | Paddy Culture in Kuttanad, Kerala: Folk Traditions, Rituals and Festivals | 2012-14 | Indira Gandhi International Centre for the Arts | 4.30 |
| 10. | MGNREGS Assessment Evaluation Study- Eranakulam District. | 2013-15 | State Institute of Rural Development | 5.40 |
| 11. | MGNREGS Assessment Evaluation Study- Pathanamthitta District. | 2013-15 | State Institute of Rural Development | 5.40 |
| 12. | MGNREGS Assessment Evaluation Study- Kollam District. | 2013-15 | State Institute of Rural Development | 5.40 |
| **School of Management and Business Studies** | | | | |
| 13. | Student development programme | 2013-16 | MDI, GURUGAON | Nil |
| **School of Pure and Applied Physics (SPAP)** | | | | |
| 14. | Nationalpooledfundsutilizedforthe promotionofteaching& research in Astronomy & Astrophysics | | MoU with (IUCAA,Pune) | Nil |
| 15. | Nationalpooledfundsutilizedforsci encedevelopmentforthe SquareKilometerArray | | MoU with Square Kilometer Array India Consortium | Nil |
| 16. | National pooled fundingby India TMT (ThirtyMeter Telescope) | | InternationalScience Development Team for MilkyWay&Nearby Galaxies | Nil |
| **School of Social Sciences** | | | | |
| 17. | Evaluation of Ecodevelopment Programme at Periyar Tiger | Periyar Found | 2.Years | 6.20 |

| | | | | |
|---|---|---|---|---|
| | Reserve), (From March, 2009 April, 2011) | ation, Periyar Thekkady. | | |
| **School of Tourism Studies** | | | | |
| **18.** | "Social Media as an influencer among foreign tourists visiting India" | 2014-16 | Indian Institute of Tourism and Travel Management and Ministry of Tourism, Govt. of India | 1.00 |
| **19.** | Discover Kottayam | 2014-16 | District Tourism Promotion Council (DTPC), Kottayam | 1.66 |
| **Inter University Centre for Biomedical Research & Super Specialty Hospital** | | | | |
| **20.** | IUCBR and Bangur Institute of Neurology, Kolkata | | Bangur Institute of Neurology, Kolkata | 44.00 |
| **21.** | IUCBR and Manovikas Kendra, Kolkata - | | Manovikas Kendra, Kolkata | 84.70 |
| **Inter University Centre For Disability Studies** | | | | |
| **22.** | Empowerment of Persons with Disabilities (PWDs) through Community Integration" | | Santhigiri Rehabilitation Institute, Vazhithala P.O, Thodupuzha-685583 | |
| **23.** | "Skill development training programme to the persons with disabilities" | | Theeradesa Raksha Social Welfare Society (TRSWS), Reg. No. 566/2001, Sidco building, Beach Road, West Hill P.O, Calicut-673005. | 2 .00 |

| | **Advanced Molecular Materials Research Centre (AMMRC)** | | | |
|---|---|---|---|---|
| **24.** | "Propellant Burn rate modifiers (PI: Prof. Suresh Mathew, Co-PI: Dr. P. Radhakrishnan Nair) | 2016-18 | ISRO | 19.20 |
| | **KN. Raj Centre for Planning and Centre-State Relations (KNRC)** | | | |
| **25.** | Conducting Training programmes Participation in training programmes | 2016-17 2015-16 | Collaboration with Gulati Institute of Finance and Taxation, Trivandrum; Institute for Studies in Industrial Development, New Delhi | Collabo rative projects |
| | **Total** | | **Rs. 806.08 lakhs** | |

## ii) International (12 nos)

| | **School of Chemical Sciences (SCS)** | | | |
|---|---|---|---|---|
| **1.** | Hierarchial biocomposites from Isora fibres and unsaturated polyester | 2014-2016 | DST-Austria | 15 .00 |
| **2.** | "Study of Fundamental Chemical and Physical Properties of Magnetic Ionic Liquid Nanofluids" | 2013 onwards | Indo-Poland Collaborative Research Project- Department of Science & Technology, New Delhi | 5.42 |
| | **School of Environmental Sciences** | | | |
| **3.** | Long - Term Monitoring of Kongsfjorden System of Arctic region for climate change studies | 2015-2016 | ESSO-NCAOR, MoES | Logistic support |
| **4.** | Long Term Environmental Monitoring of Fjord Ecosystems, Ny-Ålesund (Arctic) | 2016-2017 | ESSO-NCAOR, MoES | Logistic support |

| 5. | Development of Self-contained, PV powered domestic toilet and waste water treatment system. | 2014-2015 | California Institute of Technology, USA | 11.4 |
|---|---|---|---|---|
| 6. | Microbial Fuel Cells | 2014 | University of West of England (UWE),Bristol, UK | Nil. |
| 7. | An Interdisciplinary and Community Oriented Innovative Approach Towards Sustainable Development | 2012-2015 | UGC / Obama-Singh 21st century knowledge initiative/ with Brown University, Duke University and Plymouth State University | 62.5 |
| 8. | Pulse radiolysis of biomolecules | 2010-2012 | Indo-French ARCUS Project | 25.00 |
| **School of Tourism Studies** | | | | |
| 9. | Project for Mango Languages | 2011 – 12 | Mango Languages, USA | 0.75 |
| **International and Inter University Centre for Nanoscience and Nanotechnology** | | | | |
| 10. | studies on celluos nano Crystals and there application in nano composite with varying technological applications | 2014-2015 | India-Brazil collaboration | 27.2935 |
| 11. | Nano biomaterials water purification | 2016-17 | Researcher Links scheme offered within the Newton Fund, the British Council & Royal Society of Chemistry,London | 5.00 |
| 12. | Crosslinked polyethylene nanocomposite for cable insulating application | 2016-17 | University of Mara, Malaysia | 3.00 |
| **Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)** | | | | |
| 13. | Nanofiber structures for efficient enzyme immobilization in membrane applications | | Network project between Department of Energy Conversion and Storage, Technical University of Denmark (DTU) and Mahatma Gandhi University (MGU) | 4.26 |

| Advanced Molecular Materials Research Centre (AMMRC) | | | | |
|---|---|---|---|---|
| **14.** | "Study of fundamental Chemical and Physical properties of magnetic ionic liquid nanofluids". collaboration with Department of Physics, Rzeszow University of Technology, Poland (PI: Prof. Suresh Mathew) | 2015-17 | DST, Govt. of India & (funding agency in Poland) | 5.10 |
| | Total | | Rs. 164.72 lakhs | |
| | **Grand Total** | | **Rs. 971.52 lakhs** | |

## 3.3 Research Facilities

### 3.3.1 What efforts have been made by the university to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?

The internal quality assurance cell of the university periodically examined the important funding calls from DST, DBT, DRDO, UGC, etc and same was communicated to faculty members' in-order to submit research proposal to different funding agencies. This resulted in many funded projects from different funding agencies leading to excellent infrastructure at the campus. These include PURSE, SAIF, FIST, SARD, etc. Additionally university has separate budget allocation for infrastructure development at the schools and centres. Details are presented below.

### A. (PURSE): (All Science Departments)

Amount Received: **Rs. 1600 Lakhs**

Common Facilities set-up from this programme

1. LC-Q-ToF-MS (Liquid chromatography Quadrupole Time-of-Flight Mass spectrometer)
2. High pressure thin layer chromatography (HPTLC)
3. Ellipsometer
4. Rheocord Mixer/Extruder
5. Single Crystal XRD
6. Inductively Coupled Plasma- Mass spectrometer (ICP-MS) with Microwave Digester

**Details of Sophisticated Analytical Instrumentation Facility (SAIF): (All Science Departments)**

Amount Sanctioned by DST: **Rs. 650 Lakhs**

The major Instruments Sanctioned by DST are;

1. Field Emission Scanning Electron Microscope (FESEM)
2. Liquid Chromatography-Mass Spectrometer (LC-MS/MS)
3. Confocal Raman Spectrometer with AFM
4. Fluorescence Spectrometer with life time detector

Two equipment, 1) Confocal Raman Spectrometer with AFM and 2) Fluorescence Spectrometer with life time detector have been installed and are functional.

**B.   DBT BUILDER (School of Biosciences & Inter University Centre for Nanoscience & Nanotechnology**:

Outlay or Rs 451.8814 Lakhs (Rupees Four Crore FiftyOne lakh Eighty Eight ThousandOne hundred and Forty only) for a period of 5 years (2012-17)

List of equipments purchased under DBT BUILDER Programme

**Name of Instruments procured:**$CO_2$ incubator with $CO_2$ cylinder, sterile aseptic system with pump, HPLC preparative, Ice flaker, dehumidifier, rt-pcr, ph meter, top loading balance, students microscope, image based cyctometer, table top centrifuge, gel documentation system, electrophoretic unit with western blot, water purification system, dynamic angle contact meter, class ii biosafety cabinet, multimode reader, ftir with atr, uv-2600   isr-2600 plus, inverted microscope with phase contrast and fluoescence attachments, laminar air flow, hot air oven, colony counter, bacteriological incubator, -80 deep freezer, hptlc, langerdorff perfusion system

In addition, a Small Animal Maintenance facility of 2335 Sq.ft has also been completed with financial support from DBT under the BUILDER Programme. An Animal Cell Culture facility is also available in the School of Biosciences.

**C. FIST sanctioned in different Schools:**

**School of Pure & Applied Physics:**

**Name of the Equipment/Item procured:** Network Facility  - 2 Nos Servers and 16 Nos Computer, Matlab software, IMSL Software, High Temp Furnace, Centrifuge 2 nos, Water Distillation unit 3 Nos, Hot Air Oven, Furnace 2 Nos, Michelson Interfoerrometer, He Ne Laser, Sodium Vapor Lamp, Magnetic Hysteresis loop Tracer, Study of P N junction set up, Hall effect set up, Ultrasonic Interfferrometer, Dielectric Constant kit Solid, CRO 2 nos, DMM, DSO, Crystal Growth Set up  2 Nos, pH meter  4 Nos, Analytical Balance  3 Nos.

**School of Environmental Sciences:**

**Name of the Equipment/Item procured:** LC-MS (Shimadzu), Petrological Microscope, Computer Lab.

**School of Chemical Sciences;**

**Name of the Equipment/Item procured:**Raman Spectrometer, Thermogravimetric Mass spectrometry

**UGC (SAP, DRS) Sanctioned in different Schools/Centres**

**School of Chemical Sciences:**

**Name of the Equipment/Item procured:**BET analyzer, Microwave reactor

**School of Pure & Applied Physics**

**Name of the Equipment/Item:** Spectrofluorimeter-Fluoromax 4 with life time measurementWorkstation 2 Nos., Differential Scanning Calorimeter (DSC)

**D. SARD sanctioned in different Schools/Centres:**

**School of Environmental Sciences**

**Name of the Equipment/Item procured:** GC-MS –TCD

**School of Biosciences**

**Name of the Equipment/Item procured:** Cold centrifuge, PCR Machine, Gel Doc, Biosafety cabinet

**International & Inter University Centre for Nanoscience and Nanotechnology**

**Name of the Equipment/Item procured:** Gas permeability tester, Freeze dryer

**Inter University Instrumentation Centre:**

**Name of the Equipment procured: GCMS**

**Instruments acquired through funded projects:**

Scanning Transmission, Electron Microscope, Transmission Electron Microscope, Capillary Electrophoresis, GC-MS, UV Visible Spectrophotometers, PCR Machines, Elisa Readers with Washer, -20 freezers, Dynamic Mechanical analyzer, Differential Scanning Calorimetry, Spectroflourimeter, Rheometer, Electrospinning, Themo Mechanical Analyzer, Impact Tester, Universal Testing Machine, Dielectri Spectroscopy, Vector analyzer, Falling weight impact tester, Rubber rheometer, Gas Permeability tester, Extruder, Brabender plastic code, Haake Mixer, FT-IR Compression Moulding, Lyophilizer, Pendulum impact tester, Hand press, HPLC with Mass detector, Laser sysytems, Sonicators, Homogenizers, Autoclaves, Carbondioxide incubators, Spin coaters, Coolong ultra centrifuge, Dip Coating, Pulse laser deposition, Z-Scan, Microtomes, Me coupling setup, Spin

coater, Inverted microscopes, Optical microscope, Autocatalytic unitIngenuity laboratory with University of Alberta

## E.  University Funded Facilities:

### School of Physical Education and Sports Sciences

The Department has an advanced Sports Science Lab with equipments for Psychological, Physiological, anthropometric and Bio Mechanical studies. The facility is helpful in conducting various investigations in the respective field of knowledge more scientifically and accurately.

### School of Tourism Studies

An SPSS Lab has been established in the School with support from the University.

### School of Computer Sciences

The School has set up a dedicated Research Workstation in specialized computing areas under the plan proposal for the year 2015-16.

### 3.3.2 Does the university have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.

University Library has created a Website hosted in the domain of IT Mission for showcasing the important activities and events of the library. Various online journal archives/e-books purchased on perpetual access, e-resources including e-journals, e-books and  databases purchased/subscribed and INFONET e-Journal consortium can be made available for access through library's website www.library.mgu.ac.in

### Infonet Lab

Online reading facility is provided in the Infonet lab setup in two rooms. Besides Wi-Fi facility is provided for users with Laptop.

### Electronic Theses and Dissertations (ETD) Lab

A Laboratory for Electronic Theses and Dissertations was setup in the Library with the financial assistance provided by the INFLIBNET Centre.  Digtization and archiving of theses are carried out at this centre.

### Electronic Lab for Visually Challenged

Electronic Lab for Visually Challenged has been set up in the library during October 2015 with an objective to provide reading facilities to blind and low vision library users. The lab has following equipments and software for catering to the specific requirements of the visually challenged persons. As part of providing service, the library started audio recording of books as per request from users who are visually impaired.

### Reading Library for Blind and Low Vision

1. JAWS Talking software for the blind
2. MAGic screen magnification software without speech

3. MAGic large print keyboard

4. ZoomEx instant reader

5. Ruby hand held video magnifier

6. Flash desk top print magnifier

## Talking book library

1. Angel pro talking Daisy Player-E book for the blind

## Braille Book Library

1. Index Basic V-4 Braille Printer

2. Duxbury Braille Translation Software

## Online Thesis:

Mahatma Gandhi University had launched the digital archive of Ph.D theses in the web on November 9, 2008. In this regard, the University stands top in many aspects among other Universities in India like the first to initiate digitization of Ph.D Theses, to sign MoU with INFLIBNET in submitting e-theses in to the national repository 'Shodhganga' and to completely digitize all the available Ph.D theses awarded by the University.

A total number of 2238 Ph.D theses awarded by the University are digitally archived in the MGU Online Thesis Library (www.mgutheses.in). These are also uploaded in the Shodhganga, the online digital repository of PhD Theses developed by the INFLIBNET Centre. M.G.University is one among the topmost contributors of online theses to Shodhganga.

## Online Information Services

1. Provides information services on demands from users.

2. Library has developed special tools such as Journal Article index (Index of journal articles which are unavailable through internet but available as hard copy in the Periodicals Section of the Library) and

3. Database on Kerala Studies for the promotion of Information services.

4. These special databases are searchable on open access mode in the library website.

5. These services are supplemented with full text document delivery.

## Document Delivery Service and Inter Library Loan

The Library collects and issues journal articles and books on Inter Library Loan which are not available in its collection to the users based on their demand, mainly from DELNET( Developing Library Network), NEW Delhi and other resourceful R&D Institutions at National level.

## Usage of UGC Infornet Digital Library Consortium

M.G.University is provided with access to UGC-INFONET e-Journal facility provided by the INFLIBNET to selected 199 Universities in India. As per the statistics, the University is placed in the 29th position as on 2013 and 27th

position as on 2014. The access to the facility has been extended to remote departments and Study centres of the university during February 2015.

| Sl No | Name of Journal Database | Usage by Mahatma Gandhi University (No of articles downloaded) | | |
|---|---|---|---|---|
| | | *Year 2012* | *Year 2013* | *Year 2014* |
| 1 | Science Direct | 79476 | 75376 | 87957 |
| 2 | JSTOR | 21250 | 28833 | 27809 |
| 3 | American Chemical Society | 18662 | 18437 | 26728 |
| 4 | Wiley-Blackwell | 13886 | 1313 | 19383 |
| 5 | Springer Link | 10788 | 18064 | 17230 |
| 6 | Royal Society of Chemistry | 5670 | 8517 | 9946 |
| 7 | Taylor and Francis | 4771 | 6168 | 6822 |
| 8 | Institute of Physics | 2990 | 3014 | 3480 |
| 9 | American Institute of Physics | 1696 | 1749 | 3062 |
| 10 | Nature | 1680 | 1182 | 3000 |
| 11 | APS | 1598 | 953 | 2958 |
| 12 | Cambridge University Press | 911 | 1012 | 1375 |
| 13 | Project Muse | 814 | 1197 | 972 |
| 14 | Annual Reviews | 513 | 562 | 909 |
| 15 | Portland Press | 187 | 135 | 661 |
| 16 | Oxford University Press | 152 | 229 | 8 |
| 17 | Project Euclid | 4 | 2 | 4 |
| Total | | 165048 | 166743 | 212304 |
| *RANK of M G University out of 199 universities under theUGC-INFONET Consortium* | | *NA* | *29* | *27* |

**University Study Centres**

There are four Study Centres under the control of University Library. The Study Centres are set up in the campus of affiliated colleges in various locations like Kottayam, Changanacherry, Palai and Thodupuzha. These centres provide reference to the library resources. As an innovative service, the centres are given remote access to all e-resources subscribed/purchased by the University Library including UGC-INFONET e-journal consortium facility through Hi-Tech connectivity. These Centres are intended for the use by the students, faculty and research scholars of affiliated colleges. At present academic community belonging to the college concerned as well as in nearby colleges use the centres. The Study Centres are functioning at various locations under the jurisdiction of the University like:

1. Study Centre, Kottayam situated in CMS College, Kottayam
2. Study Centre, Changanacherry situated in NSS College, Changanacherry
3. Study Centre, Pala situated in St Thomas College, Pala
4. Study Centre, Thodupuzha situated in Newman College, Thodupuzha.

**3.3.3 Does the university have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?**

**Yes. Inter University Instrumentation Centre** (IUIC): A joint venture of State Government and University: This facility for advanced instrumentation is available to all the researchers from the University as well as other Universities of Kerala including affiliated colleges (initial funding Rs. 225 Lakhs). The users are also from other parts of the country including industries.

The University has also set-up the Sophisticated Analytical Instrument Facility (SAIF) with the help of DST, New Delhi. The facility is open to all researchers from anywhere in India (Rs. 650 Lakhs)

**3.3.4 Does the university provide residential facilities (with computer and internetfacilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?**

Yes. Hostel facilities are available for research scholars. Guest house accommodation is made available for summer fellows of various academies and visiting scientists (national/international). All research facilities in the University, including Library and instrumentation, are made available to them.

**3.3.5 Does the university have a specialized research centre/ workstation on campus and off-campus to address the special challenges of research programmes?**

**Centre for High Performance Computing**

High performance computing applications in Physics, Chemistry & Biology which helps the students and research scholars of the University to do computational work (for high computing, parallel computing and network computing).Adequate software support and computer facility are available in the centre.

**3.3.6 Does the university have centres of national and international/ recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

Yes. The university has one International and Interuniversity Centre for Nanoscience and Nanotechnology which offers interdisciplinary programmes like MS, M.Phil., Integrated MSc, Ph.D (IGPh.D), Ph.D.

The centre is equipped with many sophisticated instruments which have been procured through various projects funded by different agencies. The following instruments are available for performing high quality research in different areas of nanoscience and nanotechnology.

1. Atomic Force Microscope
2. Autoclave
3. Brabender
4. Carbon Dioxide Incubator
5. Compression Moulder
6. Cooling Centrifuge
7. Dielectric Measurement System
8. Differential Scanning Calorimeter
9. Dynamic Contact Angle Meter
10. Electrospinning Unit
11. High Resolution Transmission Electron Microscope
12. Laminar Air Flow System
13. Lyophilizer
14. ME Coupling Set up
15. Nd:YAG Laser
    Plasma Ablation
    Pulsed Laser Deposition

16. Z-Scan
17. Spin Coater
18. Ultrasonicators
19. UV-Visible-NIR Spectroscope
20. Vector Network Analyzer
21. X-ray Diffractometer

These facilities are being regularly used by researchers from other laboratories in India and abroad.

**The university also has an Inter University Instrumentation Centre (IUIC) meant for sophisticated instrumentation in** interdisciplinary areas involving Chemistry, Physics, Biology, Environmental Sciences and Nanoscience.The thrust areas of the centre are as follows:

1. Water pollution monitoring
2. Air pollution monitoring
3. Advanced oxidation processes
4. Environmental and biological application of mass spectrometry
5. Nanoscience and nanotechnology
6. Menbrane science and technology
7. Phytochemistry & Natural Product Research
8. Bioremediation
9. Environmental biotechnology
10. X-ray crystallography

Major ongoing research project: Setting up of a National Centre for Sophisticated instruments (Sophisticated Analytical Instrument Facility (SAIF-from DST for which Rs. 650 lakhs has been sanctioned.

The major Instruments sanctioned by DST are;

1. Field Emission Scanning Electron Microscope (FESEM)
2. Liquid Chromatography-Mass Spectrometer (LC-MS/MS)
3. Confocal Raman Spectrometer with AFM
4. Fluorescence Spectrometer with life time detector

Two equipment, 1) Confocal Raman Spectrometer with AFM and 2) Fluorescence Spectrometer with life time detector have been installed and are functional.

**Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)**

The outstanding contributions of the Advanced Centre of Environmental

Studies and Sustainable Development in the field of environmental sciences has resulted in the award of the prestigious Obama-Singh 21st Century knowledge initiative grant for Indo-American collaboration in the field of higher education.

Interdisciplinary programmes and departments involved: Interdisciplinary Scientific Research involving Chemistry, Environmental Science, Forestry, Human Ecology, Social Sciences and Life Sciences

Research thrust areas as recognized by major funding agencies

1. Climate Change Studies
2. Green Chemistry and Technology
3. Pollution Studies and Management
4. Earthworm Studies
5. Human Ecology and Conservation
6. Biodiversity and Natural History
7. Sustainable Development
8. Biophysical studies on biomolecule-pollutant interaction

KSCSTE, Govt. of Kerala.has also granted research funds for the study of Polyelectrolyte multilayer membrane for the treatment of papermill effluent to the tune of Rs. 26 lakhs.

A financial assistance of Rs 31.09 Lakhs has beeen granted by DST for a project on nanoscaled coir matrix for the removal of biological contaminants from water.

ACESSED has also entered into a collaborative project with TechnicaUniversity of Denmark (Rs 4.26 Lakhs- year wise)

University also has the following inter university centres where excellent infrastructure facilities being generated. These facilities also given to from researchers from other laboratories

- *Inter University Centre for Bio Medical Research& Super Speciality*
- *Inter University Centre for Disability Studies*
- *Inter University Centre for Social Science Research and Extension*
- *Inter University Centre for Studies in Science of Music*

**Inter School Centres**

**University Centre for International Co-operation (UCIC)**

Functioning as a co-ordinating centre for admission and academic related activities of international students in various schools/deparments/centres

Research thrust areas as recognized by major funding agencies

1. India Study Programme

2. Study Abroad Programme

3. International Faculty Interaction through Summer Schools and FDP

4. MOU & International Institution Membership

UCIC received a financial award of Rs. 10 Lakhs from Higher Education Council, Government of Kerala for promoting India Study Programme.UCIC received the grant of Rs. 25 lakhs from state government for various activities of the centre.

## 3.4 Research Publications and Awards

### 3.4.1 Does the university publish any research journal(s)? If yes, indicate the composition of the editorial board, editorial policies and state whether it/they is/are listed in any international database.

**School of International Relations and Politics**

The School publishes two journals-*Indian Journal of Politics and International Relations* (ISSN; 0973- 5011) and the *South Asian Journal of Diplomacy* (ISSN: 2229-3361). Both have an international editorial board including people of eminence like Immanuel Wallerstein, Prabhat Patnaik, Neera Chandhoke, James Petras etc. The articles are peer reviewed and the only best quality articles are eventually published. The first journal is a biannual while the second one is annual.

**School of Pedagogical Studies**

The School publishes a research journal in education named PEDAGOGICS. The Editorial Board comprises of the Editor who is the Director of the School, followed by an Associate Editor and two members who are also the Faculty of the School. The Patrons of the journal are the Vice-Chancellor of Mahatma Gandhi University, Dr. A. Sukumaran Nair, the former Vice -Chancellor of Mahatma Gandhi University and Dr. P. M. Jaleel, eminent educationist and the founder Director of the School.PEDAGOGICS is a peer reviewed academic journal with ISSN 2229-7618.

**School of Computer Sciences**

The School published an international journal titled *Mahatma Gandhi University International Journal on Computing and Communication* (MGU IJCC), December 2012. ISSN: 2318-8850.

The editor-in-chief is Prof. Dr. R. Vijayakumar and the Chief Patron is the Vice Chancellor.The editorial board comprises of internationally reputed scientists.

**School of Letters**

*Haritham.* The faculty constitutes the editiorial board of the journal which publishes invited articles, creative writing and translations.

**K.N Raj Study Centre for Planing and Centre-State Finacial Relations:**

*Journal of Political Economy and Fiscal Federalism (JPE &FF)* ISSN: 2395-6976. The editorail board includes: Jagdish Bhagwati (Columbia University, USA) James Petras (Binghamton University, USA) Henry Giroux (MCMaster University, Canada) Eric Rahim (University of Strathclyde, UK) Prabhat Patnaik (Jawaharlal Nehru University, New Delhi)
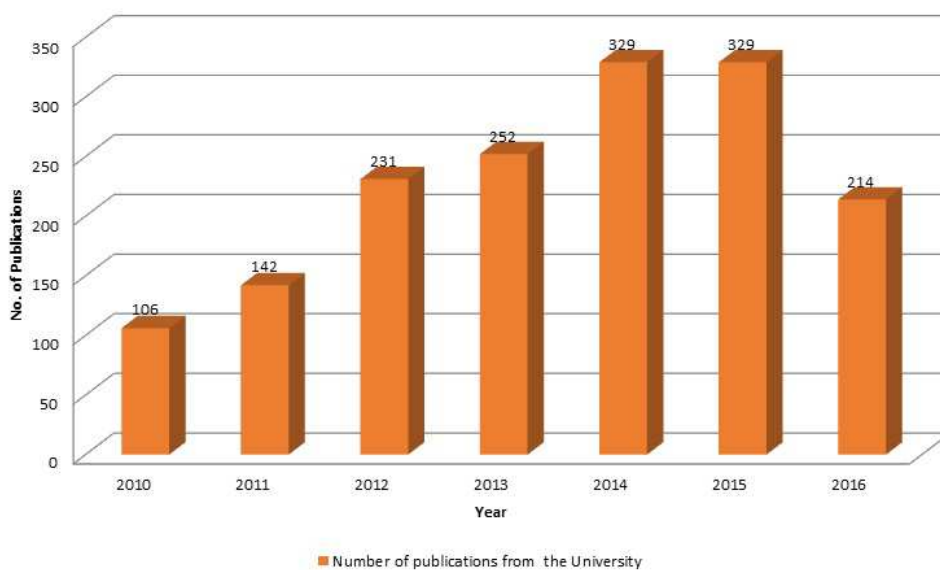
**E-Journal:** The University publishes a research e-journal which is of interdisciplinary nature covering areas of Science and Social Sciences. Internationally reputed experts are placed as members of the Editorial board and the editor-in-chief is Dr. Siby Zacharias.

**3.4.2 Give details of publications by the faculty:**

| Name of School/ Department | Number of papers published in peer reviewed journals (national /international) | | Chapters in Books | Books edited | Books with ISBN with details of publishers | Articles in popular publications | Confernce proceeings | Citation Index – average | SNIP | SJR | Impact Factor – range / average | h-index |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | International | National | | | | | | | | | | |
| Behavioural Sciences | 60 | 28 | 2 | - | 4 | 20 | 37 | | | | | |
| Biosciences | 220 | 17 | 18 | 1 | 1 | - | 88 | 11.39 | - | - | 1- 4.38 | 2-13 |
| Chemical Sciences | 393 | | 22 | 44 | - | - | 27 | 2958 | - | - | 0.5- 6.6 | 13.4 |
| Computer Sciences | 15 | 1 | 17 | 1 | 2 | - | - | 1-17/7 | - | 0.14-0.24 | 1.6 to 2 | 2 |
| Environmental Sciences | 151 | - | 4 | 0 | 1 | - | - | 407 | 1.215 | 0.885 | 2.655 | 6-19 |
| Gandhian Thought& Development Studies | 15 | 22 | 2 | 1 | 1 | 1 | - | - | - | - | - | - |
| Indian Legal Thought | 1 | 29 | - | - | - | | | - | - | - | - | - |
| International Relations& Politics | 08 | 33 | 20 | 1 | 6 | 38 | | - | - | - | - | 2-12 |
| Letters | - | 14 | 25 | 9 | 32 | 82 | 3 | - | - | - | - | - |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Management & Business Studies | 14 | 48 | 64 | - | - | | | - | - | - | - | - |
| Pedagogical Sciences | 08 | 86 | 13 | - | 2 | 09 | | - | - | - | - | - |
| Physical Education & Sport Sciences | - | 12 | - | - | 1 | | 15 | - | - | - | - | - |
| Pure & Applied Physics | 220 | 02 | 9 | 6 | -- | | 6 | 360 | | | 0.37-6.227 | 10 |
| Social Sciences | - | 09 | 18 | 1 | 9 | 16 | 26 | - | - | - | - | |
| Tourism Studies | 5 | 01 | 1 | 1 | 5 | 200 | 7 | 13 | - | - | | 2 |
| Department of Life long learning and extension | | 02 | | | 1 | | 2 | | | | | |
| IIUCNN | 277 | - | 43 | 52 | | | 23 | 14318 | | | 1.5-27.18 | 14-78 |
| ACESSD | 61 | - | 3 | 13 | 8 | | 196 | 475 | | | 1-7 | 6-14 |
| IUCBR | 77 | -- | 4 | | | | | | | | | |
| IUCDS | - | 14 | 02 | | | | 11 | | | | | |
| IUIC | 307 | - | 3 | 13 | 8 | | 100 | | | | | |
| IUCSSRE | - | 7 | 6 | | 2 | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AMMRC | 10 | - | - | - | - | - | - | | | | |
| CHPC | 16 | - | - | - | - | - | 5 | | | | |
| ICCS | - | 17 | 9 | 4 | 4 | | 15 | | | | |
| IIRBS | 08 | -- | - | - | - | - | 04 | | | | |
| KNRC | - | 23 | 10 | 4 | 2 | 2 | | | | | |
| NIPST | - | - | - | - | 1 | | 05 | | | | |
| University College of Engineering | 26 | - | | - | - | - | 10 | | | | |
| School of Technology and Applied Sciences | 39 | - | - | - | - | - | 34 | | | | |
| School of Applied Life Sciences | 07 | - | - | - | - | | | | | | |
| University College of Teacher Education | 09 | - | - | - | - | | | | | | |
| Department of Library And Information Science | - | 4 | - | - | - | - | 4 | | | | |

Number of publications from the University



Citations Year wise -*Source Web of Science*
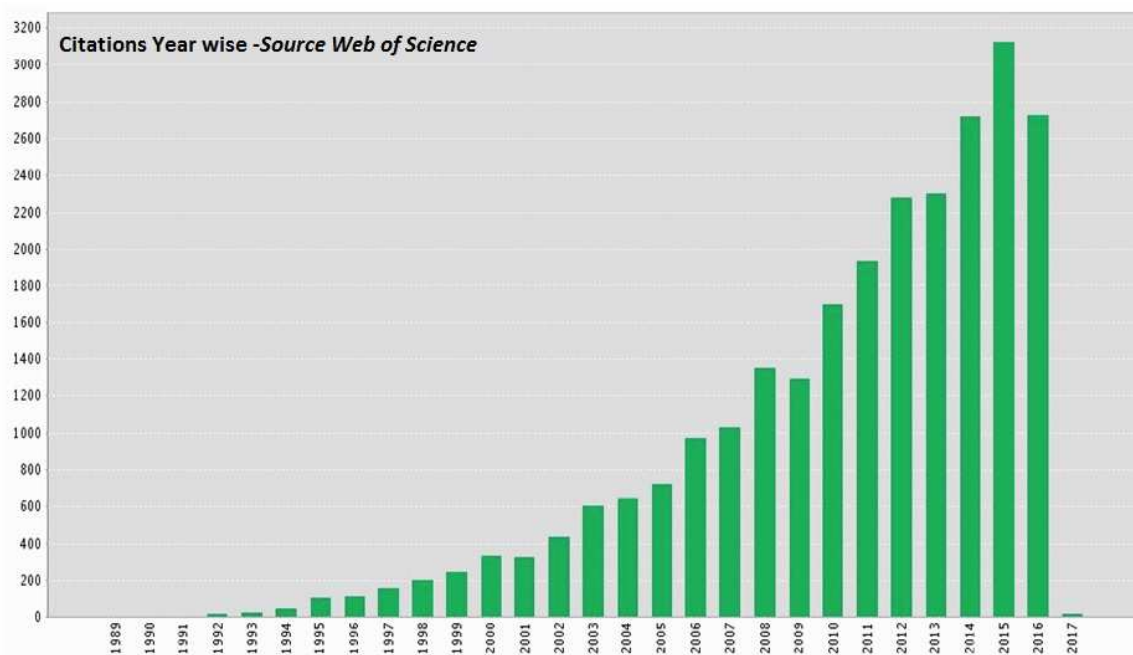
## Citation Index of Papers (details from WEB of science)

# WEB of Science Core Collection Citation Report
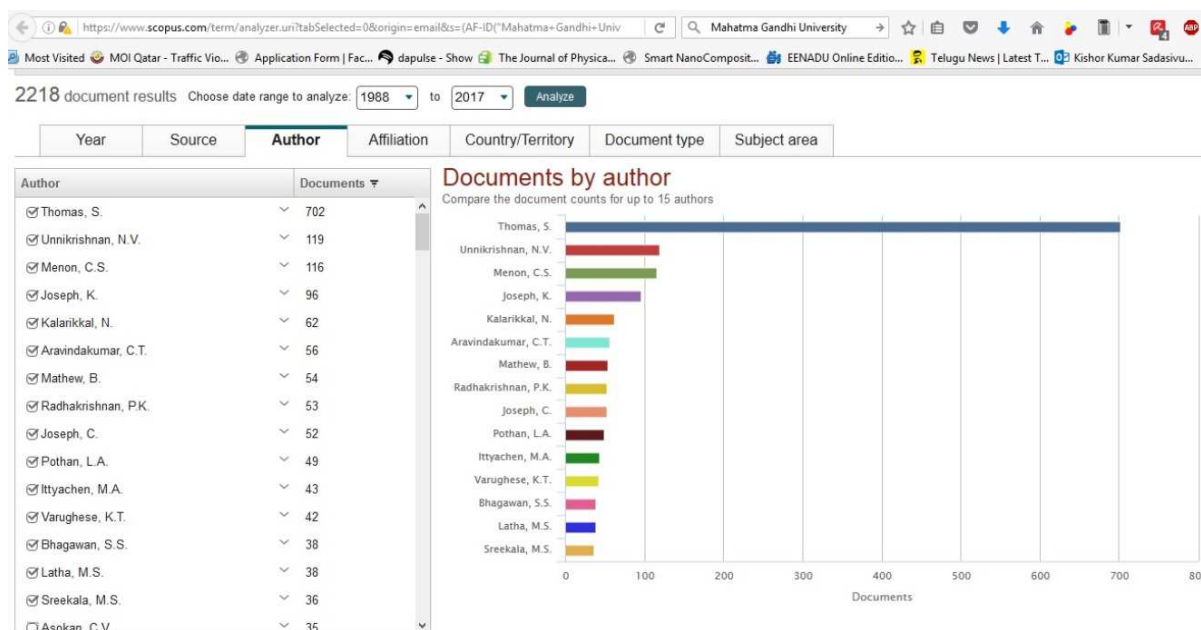


**Document Counts of faculty (upto 15 Authors; details from WEB of science)**

## 3.4.3 Give details of

a) **Faculty serving on the editorial boards of National and International journals**

| Sl. No | Name of Faculty | Details |
|---|---|---|
| 1. | Dr. Sabu Thomas | **Chief Editor** <br> Nano-Structures and Nano-Objects, **Elsevier** <br> **Editorial Boards:** <br> • SM Journal of Nanotechnology and Nanomedicine <br> • Nano Advances <br> • Materials Science and Engineering <br> • International Journal of Advances In Engineering Research <br> • World Journal of Biotechnology <br> • Journal of Emerging Materials Technology <br> • Associate Editor, Bulletin of Materials Science <br> • Regional Editor of the journal "Current Smart Materials". <br> • Editor in-Chief of Editorial Board-International Journal of Science World (IJSW) |

| | | |
|---|---|---|
| | | • Editorial Member-Flat Chem, Elsevier |
| | | • Editorial Review Board Member-International Journal of Surface Enginering and Inter disciplinary Material Science. |
| | | • Journal of Molecular and Applied Bioanalysis |
| 2. | Dr. G Anil kumar | • Editorial board member, Universal Journal of Chemistry |
| | | • Editorial board of Horizon Research Publishing, USA |
| 3. | Dr Suresh Mathew | ▪ Editorial Board Member, Science Advanced Today |
| | | ▪ Associate Editor, Science Letters |
| | | ▪ Science of Advanced Materials (SAM) –Metal Oxide Nanostructures (2010 Special Edition) |
| | | ▪ International Journal of Nanotechnology (Interscience) – ICAM-2008 (Special Edition) |
| | | ▪ Reviewer of various journals of American Chemical Society, Elsevier, Pergamann Press, Springer and Cognizure |
| 4. | Dr. P S Sukumaran, | • Member, Editorial board, Guru Journal of Behavioural and Social Sciences. ISSN:2320-9038 |
| 5. | Dr. Rajeev Kumar N | • Associate Editor, Guru Journal of Behavioural and Social Sciences, ISSN:2320-9038 |
| 6. | Dr. P.T Baburaj | • Editorial Board member, Culture Society and Law, ISSN: 2348-1250 |
| 7. | Dr. K. Muhammad Mustaffa | • Editorial Board Member – International Research Journal in Psychology – Psychologist in Social Action. |
| 8. | Sri. Rajesh E | • Editorial board member, Medical Science:http://medicalscience.pubmedhouse.com/Home.php |
| | | • Editorial board memberInternational Journal of Physiology and Pharmacology: http://nepjol.info/index.php/IJPP |
| | | • Editorial board member,Nepal Journal of Epidemiology: http://nepjol.info/index.php/NJE |
| | | • Editorial board member, International Journal of Brain Research:http://nepjol.info/index.php/IJBR |
| 9. | Dr .J.G. Ray, School of Biosciences | • Member of the Editorial Board of two international Journals: |
| | | Ecology and Noosphereology |
| | | Journal of Soil Science |
| 10. | Dr. Keerthi T.R | ▪ Iranian Journal of Biotechnology |

| 11. | Dr. Prakash Kumar B | ▪ Journal of Practical Biochemistry and Biophysics |
|---|---|---|
| 12. | Dr. E.K Radhakrishnan | ▪ Journal of Food & Industrial Microbiology<br>▪ International Journal of Advanced Research and Review |
| 13. | Dr. Bindu V.R. | • Member, Technical Advisory Committee, International Journal "Mahatma Gandhi University International Journal on Computing and Communication (MGU IJCC)", December 2012. ISSN: 2318-8850. |
| 14. | Dr. Anuj Mohamed | • Member, Technical Advisory Committee, International Journal "Mahatma Gandhi University International<br>• Journal on Computing and Communication (MGU IJCC)", December 2012. ISSN: 2318-8850. |
| 15. | Dr. R. Vijayakumar | • Editor, International Journal "Mahatma Gandhi University International Journal on Computing and Communication (MGU IJCC)", December 2012. ISSN: 2318-8850. |
| 16. | Dr. C.T. Aravindakumar | • International Journal of Chemistry (ISSN: 2249-2119) |
| 17. | Dr. M. S. John | • Chief Editor – Gandhi Marg |
| 18. | Dr. Sheeba Pillai | • Journal of Law and Legal Jurisprudential Studies |
| 19. | Dr Rajeesh A.P. | • Journal of Law and Legal Jurisprudential Studies |
| 20. | Dr. K M Krishnan | • Journal of Chinmaya Research Foundation. |
| 21. | Dr. Aju K N | • Journal of Association for Comparative Studies as well as on the Editorial Board of *Bhoomi Malayalam*, a journal published by UC College |
| 22. | Dr. Johney Johnson | • Member of Review Panel , Amity Journal of Management Research (AJMR) published by Amity University, Noida, India (2015-present) |
| 23. | Dr. Celine Pereira | • Former Associate Editor of the Peer Reviewed Journal in Education of the School of Pedagogical Sciences, PEDAGOGICS having ISSN 2229-7618 |
| 24. | Dr. T.V. Thulasidharan | • Editorial Board Member of the journal of Farook Training College, ENDEAVOURS IN EDUCATION having ISSN 0976-4275<br>• Editorial Board Member of the International Bi-Annual Peer Reviewed Journal in Education RESEARCH DEMAGOGUE<br>• Former Associate Editor of the Peer Reviewed Journal in Education of the Institute of Advanced Studies in Education, Thrissur, ACADEMIA |

| 25. | Dr. Minikutty  A | • Associate Editor of the Peer Reviewed Journal in Education of the School of Pedagogical Sciences, PEDAGOGICS having ISSN 2229-7618 |
|---|---|---|
| 26. | Dr. Sajna  Jaleel | • Editorial  Board  Member  of    the  International Journal, UJER<br>• Editorial  Board  Member  of    the  International Journal, UJER |
| 27. | Dr. Binu George Varghese | • Editorial board member, Pesquia Online Research Journal ISSN 2456-4052, www.pesquisaonline.net |
| 28. | Dr. K.M Seethi | • Editor, South Asian Journal of diplomacay (ISSN 2229-3361)<br>• Editor, Indian Journal of Poltics and International Relations (ISNN 0973-5011)<br>• Editor, Journal of Poltical Economy and Fiscal Fedaralism, 2015 (ISNN 2395-6976) |

## Faculty serving as Reviewers:

| Sl. No. | Name of the faculty | **Journal name** |
|---|---|---|
| 1. | Dr K Indulekha | • Journal of Astrophysics &Astronomy |
| 2. | Dr C Sudarsanakumar | • Material Science in Semiconductor Processing<br>• Chinese Optics Letters<br>• Optics Communication<br>• Journal of Molecular Modelling<br>• HSOA Journal of Infectious and Non-infectious Diseases. |
| 3. | Dr N VUnnikrishnan | • Journal of non-crystalline solids<br>• Materials letters<br>• Journal of analytical and applied pyrolysis<br>• Journal of luminescence<br>• Physica b: physics of condensed matter<br>• Optical materials<br>• Materials chemistry and physics<br>• Advances in chemistry and material science<br>• Materials science and engineering<br>• Applied surface science<br>• International journal of biochemistry and biotechnology<br>• Journal of modern optics<br>• Journal of the chemical society of Pakistan<br>• Journal of optoelectronics and advanced materials<br>• The journal of physical chemistry |

| | | |
|---|---|---|
| | | • Journal of physics and chemistry of solids<br>• Journal of sol-gel science and technology<br>• Journal of theoretical and applied physics<br>• Journal of material processing technology<br>• Materials science in semiconductor processing<br>• Optics communications<br>• Spectrochimicaacta part a: molecular and biomolecular spectroscopy<br>• Scientific research and essays<br>• Journal of alloys and compounds<br>• Materials research bulletin<br>• Applied optics |
| 4. | Dr. Nandakumar Kalarikkal | • RSC Advances<br>• Journal of Sol-Gel Science and Technology<br>• Journal of Materials Science<br>• Journal of Magnetism and Magnetic Materials<br>• Solid State Sciences<br>• Journal of Industrial Textiles<br>• Colloids and Surfaces A: Physicochemical and Engineering Aspects |
| 5. | Dr Cyriac Joseph | • Reviewer for Journal of Crystal Growth<br>• Journal of Physics and Chemistry of Solids<br>• Journal of Luminescence<br>• Dyesand Pigments<br>• Optical Materials<br>• Luminescence<br>• New Journal of Chemistry<br>• Thin Solid Films Spectrochimica Acta |
| 6. | Dr P R Biju | • Journal of Luminescence<br>• Journal of electronic Materials<br>• Journal of Alloys and Compounds<br>• Journal of Optical Materials<br>• Journal of Material Science and Engineering E |
| 7. | Prof. Sabu Thomas | • Journal of the American Chemical Society,<br>• Macromolecules<br>• Journal of Applied Polymer Science<br>• Composites Science and Technology<br>• Journal of Thermal Analysis<br>• Polymers and Polymer Composites<br>• Polymer<br>• Soft Matter<br>• Journal. of Polymer Science Part B: Polymer Physics<br>• Composites Part A & Part B |

|     |     | • Polymer Composites |
| --- | --- | --- |
|     |     | • Polymer Engineering and Science |
|     |     | • European Polymer Journal |
|     |     | • Journal of Materials Science |
|     |     | • Langmuir |
|     |     | • Applied Clay Science |
|     |     | • RSC advances |
|     |     | • Biomacromolecules |
|     |     | • Industrial crops and products |
|     |     | • ACS Applied Materials and Interface |
|     |     | • ACS Sustainable Chemistry and Engineering |
|     |     | • Journal of Physical Chemistry, A, B and C |
|     |     | • Macroletters |
|     |     | • Naturematerils |
| 8. | Dr Beena Mathew | ▪ Reviewer of various of journals of Wiley, Elsevier, Taylor & Francis, and Springer Publishers |
| 9. | Dr. Raju Francis | • Reviewer of research articles for ACS, WILEY and Elsevier journal |
| 10. | Dr KS Devaky | • Reviewer of various of journals of Biosynthesis |
| 11. | Dr. Jayachandran K | • Reviewer of Projects, KSCSTE- reviewer of Back to Lab programe of KSCSTE<br>• Reviewer of Journals- 3 biotech, Bioresource technology |
| 12. | Dr. P S Sukumaran | • Review board member, Journal of Disability Management and Special Education. ISSN 2229-5143<br>• Review board member, Disability, CBR, and Inclusive Development |
| 13. | Dr. E.M Afsal | • Member of Review Panel, Journal of Applied Economics published by The University of Warwick, United Kingdom (2009- present<br>• Member of Review Panel, Advances in Economics and Business published by Horizon Research Publishing, USA (2014-present)<br>• Member of Review Panel , Amity Journal of Management Research (AJMR) published by Amity University, Noida, India (2016-present) |
| 14. | Dr. K.M. Seethi | • Reviewer, Millenium, Journal of London School of Ecnomics.<br>• Reviewer, Economic and Political Weekly.<br>• Reviewer, Oxford University Press. |

**b) Faculty serving as members of steering committees of international conferences recognized by reputed organizations/societies**

| Name of Faculty | Details of the conference |
|---|---|
| Prof. Sabu Thomas | 1. International Conference on Understanding Contemporary India, ICCS, Mahatma Gandhi University, January 2016 |
| | 2. International Conference on Advances in applied Mathematics, Materials Science and Nanotechnology for Engineering and Industrial application.IC-AMMA-2K16, Federal institute of science and Technology (FISAT)- January 2016 |
| | 3. INTER ISLAMIC NETWORK ON SCIENCE AND TECHNOLOGY PARKS(INSTP) AND THE OIC Standing Committee on Scientific and Technological cooperation (COMSTECH),IRAN Guilan, Iran.(2015 December) |
| | 4. 8th International Conference on Materials for Advanced Technologies of the Materials Society of Singapore and 16th IUMRS - International Conference in Asia together with 4th Photonics Conference 2015 |
| | 5. 9th National Affinity Techniques Symposium" (AFFTECH 2015); "4th Nanomedicine World Congress (NANOMED 2015)" and "2nd International NanoBioTechnology Symposium" focusing also Nanomedicine (NANOBIOTECH 2015), Dalaman, Turkey & AFFTECH 2015.-2015, August |
| | 6. "XXI IUPAC CHEMRAWN - Solid Urban Waste Management, Rome, Italy.,- April,2016 |
| | 7. The International Rubber Conference 2016 Kitakyushu, Japan (IRC2016 Kitakyushu)- 2016 October |
| Dr. Nandakumar Kalarikkal | 1. INTER ISLAMIC NETWORK ON SCIENCE AND TECHNOLOGY PARKS(INSTP) AND THE OIC Standing Committee on Scientific and Technological cooperation (COMSTECH),IRAN |
| | 2. International Conference on Energy Harvesting Storage and Conversion (IC-EEE 2015, Cochin University of Science and Technology, Cochin, Feb 2015. |

### 3.4.4 Provide details of

### a) Research awards received by the faculty and students

| Sl No. | Details of Awards received by Faculty Students | Details of Awards received by Students |
|---|---|---|
| **School of Behavioural Sciences** | | |
| | **Dr. Razeena Padmam**<br>Mahila Thilakom award instituted by Govt. of Kerala<br><br>**Dr. P.T Baburaj**<br>Best poster presentation award in the International Conference on Inclusive Education, Jan11 & 12,2012 organized by the Department of social work, Assumption College Changanacherry, Kerala<br><br>**Ms. Rincymol Mathew**<br>Best poster presentation award in the UGC sponsored National Seminar on Ageing and Society, on 4&5 October, 202 organized by ST. Theresa's College, Ernakulum, Kerala.<br><br>Best poster presentation award in National Conference on Models of Best Practice in Empowerment of Persons with Disabilities, !6-17, October 2015, jointly organized by the National Institute for Empowerment of Persons with Disabilities, Rehabilitation Council of India, and School of Behavioural Sciences, Mahatma Gandhi University, Kottayam, Kerala<br><br>**Sri. Rajesh E**<br>Public service award awarded by Confederation of Epidemiological Associations, (CEA) India | Nil |
| **School of Biosciences** | | |
| | **Dr. E. K Radhakrishnan:**<br>Honoured presentation of "Bharat Gaurav Award" by India International Friendship Society, May 2016 | **Rohini Sabu:**<br>Young scientist award for the best paper in the National seminar on Diversity of Microbes and Climate Change mitigation held during 3rd-5th February 2016 organized by Catholicate College, Pathanamthitta |

| | | | **Jimtha John C:** |
|---|---|---|---|
| | | | Best paper award in UGC Sponsored National seminar on progress and prospects of Biotechnology, at St. Josephs College, Irinjalakuda on 14th and 15th January, 2016. |
| | | | **Tijith K George, Haseena:** |
| | | | Best paper award in the National Seminar on Plant science Technology for sustainable world - 2016 |
| | | | **Glindya Bhagyalakshmy:** |
| | | | Best paper presentation award. National Seminar on"Food Safety in India-Current Issues and Career Prospects"2015 |
| | | | **Divya.R:** |
| | | | Best paper presentation award Biovision 2014 |
| | | | **Aju K.Ashok.** |
| | | | Best poster award (Life Science) 23rd Kerala Science Congress held on January 29-31, 2011 |
| | | | **Aswathy Agnes Joseph:** |
| | | | First Prize for poster presentation at the 24th Kerala Science Congress, organized by Rubber Board., Kottayam, Kerala, India on 29-31, January 2012. |
| | | | **Roshmi Thomas:** |
| | | | First Prize for Paper presentation, at "Nanotechnology: Applications of Nanomaterials in Agriculture, Food and medicine, 25-26 July organised by BK College, Amalagiri, Kottayam. |
| | | | **Jasim B**: |
| | | | First Prize for Paper presentation at the "National Seminar on Advanced Biochemical Techniques: Relevance in Interdisciplinary Research Scenario" on September 3-4, organized by B.K. College, Amalagiri, Kottayam. |

| | | |
|---|---|---|
| | | **Anisha C:**<br>Best Poster Award at the International Seminar on Emerging Trends in Organic Farming and Sustainable Agriculture organized by IUCOFSA, Mahatma Gandhi University, on 29th 31st Dec,2016<br>**Rosemin Benny:**<br>Best paper award for Rosemin Benny at 25[th]Swadheshi Science congress December 2015. |
| **School of Chemical Sciences** | | |
| | **Prof.Sabu Thomas:**<br>1. Distinguished Professorship Award Josef Stefan Institute, Slovenia, 2010<br>2. Fellow of the Royal Society of London ,FRSC,2012<br>3. Awarded Bronze Medal of Chemical Research Society of India, 2013<br>4. Awarded Materials Research Society of India Award (2013)<br>5. Awarded Society For Educational & Scientific Research. (SESR) Nanotech Scientist Award- 2014<br>6. Honorary doctorate (D.Sc.) from the University of South Brittany, Lorient, France (2015)<br>7. Awarded Loyalty Award "International Materials Technology Conference Exhibition" May 2016 & Honourable member of IMTCE, Loyalty Award Club (Membership Number -IMTCE-LC-017<br>8. Awarded Dr. APJ Abdul Kalam Award for Scientific Excellence – 2016<br>- Mahatma Gandhi University- Award for Outstanding contribution – November 2016<br>**Dr. Raju Francis:** UGC Research Award, 2012<br>**Prof. Suresh Mathew** :<br>1. Rudolph A Marcus Award 2016 in Chemical Sciences by Lognor, Publishers of Science Advances | **Divya Mathew:**<br>1. Best poster award for Kinetic Study on the Catalytic Amidolysis of Z-L-Phe-PNA Using Phosphonate Analogue Imprinted Polymer Catalysts as Chymotrypsin Mimics (*National Seminar on Phytochemistry An EmergingBranch for the Development of Potential Anticancer Drugs*, Assumption College, Changanasserry, September 2015)<br>2. *Best poster award* forKinetic Studies on Hydrolytic Activities of Polymer Supported Enzyme like Catalysts in the Amidolysis of Z-Tyr-Gly-OCH3 (*Recent Trends in Spectroscopy: A Chemical and Biological Perspective-II*, Newman College, Thodupuzha, 13-14 September 2015)-<br>3. *Best poster award* forEffect of the Nature and Extent of Crosslinking on Catalytic Amidolysis of Z-L-Tyr-PNA Using Chymotrypsin Mimics (*National Seminar on Advanced Functional Materials*, Mar Athanasius College, 15-16 September 2015)-<br>4. Kinetic Study on the Catalytic Amidolysis of the Dipeptide H-Tyr-Gly-OH Using Boronic acid Analogue Imprinted Chymotrypsin Mimics (*RTSB, Recent Trends in Organic* |

| | Today | *Synthesis and ChemicalBiology*, Annamalai University, Department of Chemistry, October 2015)- |
|---|---|---|
| | 2. Nanoscience Research Leader Award 2015 by Cognizure Publishers, hostess of the International Journal – Science Letters | • **Deepalekshmi Ponnamma Best Poster Presentation** Award in " National Seminar on Recent Advances in Polymer Science and Technology-2012" Organized by: Society for Polymer Science India and MarIvanios College Trivandrum, India |
| | **Dr. G. Anilkumar :** Second prize in the Evonik Industries Chemistry Research Proposal competition ECRP 2016, Germany | • **DeepalekshmiPonnamma Best Oral Presentation** Award in "National Conference on Nanostructured materials and Nanocomposites (NCNM) 2012" Sponsored by UGC, at NSS College, Ottapalam, Kerala, India |
| | | • **Cintil Jose** **Best paper award** for the paper entitled "*Novel approach for the development of cellulosenanowhiskers from isorafibre*" at the National Seminar on 'Emerging Trends in Chemistry'held atSt.Joseph's College, Moolamattam on 25th February 2012 |
| | | • **Sooraj M. P.,** Emerging Trends in Polymeric Materials (ETPM 2014) organized by The Society for Polymer Science, India and Christian College, Chengannur, Kerala, January 2014 – Best Poster Award |
| | | • **Sooraj M. P.**, "3rd International Science Congress (ISC 2013)" organized by International Science Congress Association, Karunya University, Coimbatore, December 2013 – Best Poster |

| | | | Award. |
|---|---|---|---|
| | | | • **Sooraj M. P.**, International Conference on Advances in Material Science (ICAMS 2013)" sponsored by OPCW, DRDO, KSCSTE, Sree Snakara College, Kalady, October 2013 – Best Poster Award |
| | | | • **Sooraj M. P.**, National Seminar on "Advances in Chemistry-Research and Opportunities" sponsored by KSCSTE, All Saints' College, Trivandrum, August 2013 – Best Paper Award |
| | | | • **Runcy Wilson-** Best Paper Award- National Seminar on Advanced Polymer Materials , Organized by Department of Polymer Engineering Mahatma Gandhi University College of Engineering, Muttom, Thoupuzha, Kerala September 11&12, 2015 |
| | | | • **DeepalekshmiPonnamma**, Selected as an invited speaker for the "Polymer Conference for Young Researchers ( PCYR-14)" held at CSIR-NIIST |
| | | | • **Amrutha P Thankachan** Best Paper AwardA Novel Protocol for the Formation of C-S Bonds Using Zn(II)-Catalysts" in the UGC sponsored 13th Prof. K. V. Thomas Endowment National Seminar onNew Frontiers in Chemical Research" Conducted at S. H. College Thevara, Ernakulam, on 4-5 December 2014 |

<table>
<tr><td></td><td></td><td></td><td>

- **A M. Thomas**
  Best Paper Award  forNovel Protocol for Ullmann C-O Coupling Reactions Under Aerobic Conditions , Proceedings of the National Seminar on Recent Trends in Chemistry, 6-7 November, 2014, Baselius College, Kottayam, Kerala

- **Amrutha P Thankachan**
  Best Paper Award  forNovel zinc-catalyzed C-S cross coupling reactions of aryl halides with aryl thiols " in the UGC sponsored National seminar " Chemistry for Tomorrows world " Conducted at B. K. College Amalagiri, Kottayam on 22-23 January 2015

- **Jeena Abraham,**
  International Conference Nanoscience and Emerging Applications (ICONSEA ) organized by Centre for Nanoscience and Technology, Jawaharlal Nehru University, Hyderabad, June 26-28, 2014 –

- **Jyotishkumar Parameswaranpillai**
  Best poster award- International conference, ICMST October 29-31, 2010 Trivandrum (IIST). Thermal and mechanical properties of poly(acrylionitrile butadiene styrene)modified epoxy/amine systems

- **Deepalekshmi Ponnamamma**
  Selected as an invited speaker for the "Polymer Conference for Young Researchers PCYR-14)" held at CSIR-NIIST Elastomer nanocomposite

- **Runcy Wilson**
  Best Paper Award, National

</td></tr>
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| | | |
|---|---|---|
| | | Seminar On Advanced Polymer Materials(SCENTIA), Organized By Department Of Polymer Engineering Mahatma Gandhi University College Of Engineering, Muttom, Thoupuzha, Kerala 2013 , <br><br>• **Cintil Jose Young researcher award** <br><br>International conference on 'Functional Polymers 2011' held at NIT CALICUT organized jointly by the Department of Chemistry, NIT Calicut & Leeds University, UK  "A cost effective approach for the development of cellulose nanowhiskers |

**School of Environmental Sciences**

| | | |
|---|---|---|
| | **Dr. C.T. Aravindakumar** <br>1. Visiting Professor at the University of Paris-East with full professor status, 2015 <br>2. an invited member of the Oslo Governance Forum (OGF), Oslo (UNDP) 2011 <br>3. Visiting Professor (with full Professor status) at the University of Paris-East (Department of Geology and Environment) 2013 <br>4. Governing Council member and Executive Committee member of the Kerala State Institute of Climate Change Studies-2014 <br>5. Team Leader in Environmental Science to formulate the research policy of the Ministry of Earth Science in India's Polar Research (Arctic/Antarctic/Southern Ocean/Himalaya) for the next 10 years. The Brainstorming Meeting on Polar Sciences and Global Water Cycle was held at the National Centre for Antarctic and Ocean Research (NCAOR), Goa during April 13-14, 2016. <br>6. Invited as an expert for identifying research proposals for the India's 36th Antarctic Expedition 2016. The | • **Sruthy S:** <br>Dr. Satheesh Memorial Young Scientist Award for best paper presentation in 11th Kerala Environment Congress (KEC-2015), 6th to 8th may 2015 organized by Centre for Environment and Development, Kottayam, Kerala <br><br>• **Daniya M. Thomas:** <br>selected to Brown International Research Institute (BIARI), Brown University, USA – 2013 with full support <br><br>• **G. Akhil:** <br>1. Best Paper Awards in  the International Conference on Water: From Pollution to Purification, Jan.23-26, Kottayam <br>2. Best Paper Awards in the 26th Kerala Science congress, January, Wayanad, 2014. <br>3. Best Paper Awards in 5th Asian Conference on Colloid and Interface Science, Darjeeling, November, 2013. <br><br>• **P. R. Manoj:** <br>1. Best Paper Awards in  the third International Conference on |

workshop was held during June 9-10, 2016

7. Nominated to the Expert Panel of the Water Technology Initiative (WTI) of the Department of Science & Technology, Govt. of India 2015

- **Dr. Mahesh Mohan:**
1. DST-SERB Fast Track Project for Young scientist
2. Selected for Indian Arctic Expedition 2013-14
3. Selected for Indian Arctic Expedition 2014-15
4. Team leader as Indian Arctic Expedition (July, 2015)

- **Dr. Sylas V.P:**
1. Visited Brown International Advanced Research Institute (BIARI) – 2013 (June 06 – 24), Brown University, USA with full support.

Advanced Oxidation Processes, Sept.25-28, Munnar

2. Best Paper Awards in the International Conference on frontiers of mass spectrometry (ICMS 2013), Sep.6-9, Kottayam, 2013

- **Jisha C:**
Best Paper Awards in the International conference on Nano - biomaterials, Kottayam, 2014.

- **Shibin N. B:**
Best Paper Awards in the National Symposium on Radiation and Photochemistry (NSRP-2013), North Eastern Hill University, Shillong, March 20-22, 2013

- **Shoniya Thomas:**
1. Best Paper Awards in the National symposium on radiation and photochemistry, NSRP-2013, Shillong, March 20-22, 2013
2. Best Paper Awards in the International Conference on Advanced Oxidation Processes, Oct.5-8, Kottayam, 2012.

- **T.V. Divyalakshmi:**
1. Best Paper Awards in the second international conference on membranes, Kottayam, October 4-6, 2013
2. Best Paper Awards in the Proc.-International conference on membranes: Environmental and biological applications, Sept.16-19, 2011

- **Nikhil Chandra:**
1. Best Paper Awards in the National Seminar (NSNano 2013), SN College, Kollam
2. Best Paper Awards in the National Seminar on Green Chemistry-The Ultimate tool for pollution control Changanasserry, February 14-15, 2012

- **Siju Abraham:**
1. Best Paper Awards in National

| | | |
|---|---|---|
| | | seminar on green chemistry- The ultimate tool for pollution control, Changanacherry, February 14-15, 2012.<br><br>2. Best Paper Awards in the National seminar on sustainable development: Recent trends in meeting the challenges (NSSD-2012), Kottayam, January 20-21, 2012.<br><br>• **M. M. Sunil Paul:**<br>Best Paper Awards in the Trombay Symposium on Radiation and Photochemistry, January 5-8, Mumbai, , 2012. |
| **School of Gandhian Thought & Development Studies** | | |
| | • **Dr. C. R. Harilakshmeendrakumar:**<br>GICSNA (Government of India Certified Senior Naturopath Association) National Award for the contributions rendered to the academic propagation of Yoga & Naturopathy in the national and international level. | |
| **School of Indian Legal Thought** | | |
| | • **Dr. George Joseph** :<br>1. Prestigious award of Scroll of Honour from the International Council of Jurists London, 2014, taking into account his contributions in International Law, Academic year 2013 -2014<br>**2.** Sevanaratnam Puraskaram, 2011 from Nethaji Smaraka Samathi Trivandrum | • **Anathakrishnan A Kartha**<br>Best Mooter award in the One week Summer School Programme organised by European College of Law and Common Wealth Legal Education Association at London (2015 -2016)<br><br>• **Department students team:**<br>1. Best Team award, in the National Competition on Alternative Dispute Redressal Mechanism held at Govt. Law College Ernakulam. (Academic year 2012 -2013)<br>2. **The best script memorandum**, in the National Competititon on Alternative Dispute Redressal Mechanism held at Govt. Law College |

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| | | Ernakulam. (Academic year 2012 -2013)<br><br>3. **Runner up in the in NALAM** 2015 conducted by NUALS, (Academic year 2015 -2016)<br><br>4. Winner, in the Ratio Decidendi Judgment Analysis Competition organized by Bharat Matha School of Legal studies 223rganized in 2015<br><br>5. **Winner of best article** containing anti drug theme instituted by the Excise department, GOK for the year 2016<br><br>6. **Selected for the Best magazine** on the theme Anti-Drugs Campaign by the Excise Department, GOK, for the year 2016. |
| **School of Letters** | | |
| | • **Dr. P.S Radhakrishnan** :<br>National film award (best film critic) by the Govt. of India for the year 2014.<br>• **Dr.Aju K N** :<br>Dr. B R Ambedkar National fellowship award by Bharateeya Dalit Sahithya Academy, New Delhi in 2012.<br>• **Dr.Saji Mathew:**<br>Research Award from UGC (2014-16).<br>**Dr.Aju K N** :<br>1. Research Award from UGC (2012-15)<br>2. Kerala state film award 2012-13<br>3. Received Literary Award (2016)<br>4. Received Kerala State film award (2015-16)<br>• **Dr. Jose K. Manual**<br>Received Kerala State film award (2015-16) | • **Siddharth Siva**<br>Ph.D. Scholar received National film award for the film "Noottonnu Chodyangal"(2014).<br><br><br>• **Students team:**<br>The School of Letters won the first prize in the literary quiz conducted in connection with Sahiti, Thunchath Ezhuthachhan Malayalam University Tirur, February 2014. |
| **School of Management and Business Studies** | | |
| | • **Dr. Afsal E.M.:**<br>1. AIMS-NMIMS Outstanding Paper Award at the thirteenth International Conference on | • **Radhika PC & Johney Johnson:**<br>Received the best paper award at the International Conference |

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| | Management organized during 19-22 December 2015 at Indua business Academy, Bangalore<br><br>2. Award for Best Doctoral Paper Presentation in the AIMS-International Conference on Management held on 2009 December 20-23 at IIM Bangalore,2009 | organised at SNGCE, (2013)<br>• **Jominy Joice & Siby Zacharias:**<br>Career Management in Changing Career Context', Trends and Challenges in Indian Business Management, Jominy Joice & Siby Zacharias,; International Conference, Placitum November 6 &7, 2014<br>• **Brijesh George John & Siby Zacharias**<br>A Study on Online Jewellery Sales in India' International Conference on Advanced Management-Challenges in Knowledge Era, 8th& 9th January 2015, AMAL Institute of Management, Bharathidasan University |
| **School of Pedagogical Sciences** | | |
| | • **Dr. Celine Pereira**<br>Best Teacher Educator Award of Council of Teacher Educators in 2013 | • **Dr. Varghese P. Peter**<br>National Best Teacher Award in 2013-14<br>• **Mrs. Sindhu P.G:**<br>Best Paper Presenter Award by Council of Teacher Educators in 2014<br>• **Mrs. Sreeja Swas** :<br>Best Paper Presenter Award by Council of Teacher Educators in 2013 |
| **School of Physical Education & Sports Sciences** | | |
| | • **Dr. Binu George Varghese**<br>Letter of Appreciation from Secretary Sports, Government of Kerala for the excellent performance of Kerala team in 35th National Games and for meticulously discharging the responsibilities of Secretary, Kerala State Sports Council during my tenure from 2014-2016. | |

**School of Pure&Applied Physics**

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| • **Dr. Antony S**<br>UGC research award 2015 | • **RitheshRaj:**<br>Best Oral presentation by at the National seminar on Advances in Crystal Growth and Nanotechnology held at CSM College Kottayam during Jan 15-16,2016<br><br>• **RaneeshB:**<br>Second position in poster presentation, The secondint ernational conference on Opto electronicmaterials and Thinfilmsfor Advanced Technology (OMTAT2013), Cochin University of Science and Technology, Cochin, January 3-5, (2013)<br><br>• **Ms Rehana P Ummer:**<br>Best award for oral presentation, 15th National Symposiumon Material Science, IIT Bombay, Mumbai May 18-24 (2015)<br><br>• **Ann Mary KA:**<br>Bestpaper Award in Physical Science in the 26th Kerala Science Congress held at Kerala Veterinary and Animal Science University Wayanad during 28 to 31 Jan 2014<br><br>• **PrasanthS:**<br>Best poster Presentation award to, in the national seminar on Photonics and Its application held at University of Kerala during Dec 9-11 2015<br><br>• **RemyaMohan:**<br>Best Poster Award for at the National Seminar on nano-scale Science & Technology, Devamatha College, Kuravilangad 2015<br><br>• **ElHadjiMamourSakho:**<br>Best Poster Award at the International Conference on Advanced Materials for Power Engineering 2015 conducted by Wroclaw Technical University & Mahatma Gandhi University 2015 |

| School of Social Sciences | | |
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| | • **Dr. Raju S:** UGC Research Award | |
| **Department of Lifelong Learning and Extension** | | |
| | • **Dr. Sabukuttan** | |
| | 1. Received Life time Achievement Award in 2014 for promotion of yoga and Naturopathy from the Indian Martial Arts Academy Thrissur, Kerala | |
| | 2. Received Sarojini Damodar Foundation Award twice for the recognition of his service in propagating Organic Farming in 100 affiliated colleges under Mahatma Gandhi University during the year 2016 and also for the academic contributions in spreading the message of Organic Farming by starting Certificate and Diploma Courses at the University. | |
| | 3. Received Certificate of Honour for the incredible contributions in Social Service for the years 2012-13,2013-14 and 2014-15 by Kerala Action Force, Anwar Pain and Palliative Care and IMA Madhya Kerala | |
| | 4. Received the Youth Promotion Award 2014 from the Centre for Research and Action (CIRA) in recognition of Significant Contribution in the field of Youth Development | |
| | **5.** Received the Best Programme Co-ordinator Award during the year 2013-14 and 2015-16 | |
| | **6.** Received the Kamala Dalam Award in 2016. | |
| | **7.** Received Synergy Award for the Empowerment of Youth in 2016 | |
| | **8.** Received Indira Gandhi NSS Award for the year 2013-2014 for the Best NSS Programme Co-ordinator from the Hon'ble President of India Sri Pranab Kumar Mukherjee. | |
| | **9.** Received Indira Gandhi NSS Award (Certificate of Appreciation) for the | |

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| | year 2012-2013 for the best NSS Programme Co-ordinator from the Hon'ble President of India Sri Pranab Kumar Mukherjee.<br><br>**10.** Received the IPCAI National Award for the outstanding contributions in the field of Community Organisation through National Service Scheme of Mahatma Gandhi University in November 2016. | |

**International and Inter University Centre for Nanoscience and Nanotechnology**

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| | | • **Robin Augustine :**<br>1. Best poster award, International Conference on Membranes (ICM-2013), MGU**; Best** poster presentation in Second International Conference on Nanomaterials: Synthesis, Characterization and Application India- 2013, MGU.<br>2. Best Poster Presentation Award -International Conference on Advanced Nanocomposite for Construction Materials (ICNC-2013), MGU**;** Best oral presentation award - International Conference on Tissue Engineering and Regenerative Medicine (ICAPM-2013) National Institute of Technology, Rourkela, Odisha<br>3. Best poster award-Bioradiance 2014 (National level seminar), organized by the Pushpagiri Research Centre, Tiruvalla, Kerala.**;** Third prize for poster presentation ,2nd International Conference of Nano Materials(*ICNM*)*2014, MGU*<br>• **Jemy James:**<br>Best Oral Presentation - International Conference On Plasma Science And Nanotechnology, & 29th National Symposium On Plasma Science And Technology, MGU<br>• **Preetha Balakrishnan:** |

| | | Best Oral Presentation Award - National Seminar on Material Science and Modern Analytical Techniques on 26th&27th of March 2014 |
| | | • **Dr.Praveen.G:** |
| | | 1. Best Oral Presentation Award, National Seminar On Biopolymers And Green Composites (BPGC-14); |
| | | 2. Best Oral Presentation Award, National Seminar On Nanochemistry And Nanobiotechnology (Nanochembio-14); |
| | | 3. Best Poster Presentation Award (Prof. D.M. Vasudevan Award),In Bioradiance-2015 'National Conference On Frontiers In Diabetic Research And Treatment' ; |
| | | 4. Best Oral Presentation Award , UGC Sponsored National Seminar On "Emerging Trends In Nanomaterials" |
| | | 5. Best paper award ,28th Kerala Science Congress,2016 |
| | | • **Jiji Abraham :** |
| | | Best Paper Award - National Seminar on Nanostructured Materials (NSM2014),5: Best Paper Award, National Seminar On Advanced Polymer Materials(Hesperos 2015), MGU |
| | | • **Blessy Joseph:** |
| | | Best Poster Prize International Conference On Holistic Medicine - ICHM 2015, MGU |
| **Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)** | | |
| | | • **Sijumon V.A** |
| | | Best poster award in the National symposium on radiation and photochemistry, NSRP-2013, Shillong, March 20-22, 2013; Best poster award in the National seminar on sustainable development: recent trends in |

| | | meeting the challenges, NSSD-2012, Kottayam, 2012; Best poster award in the National seminar on green chemistry-The ultimate tool for pollution control, Kottayam, 2012. |
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| | | • Jisha C |
| | | Best paper in the International conference on Nano -biomaterials, Kottayam, 2014. |
| | | • G. Akhil |
| | | Young scientist award, in the 26th Kerala Science congress. 2014, Best paper award in the 5th Asian Conference on Colloid and Interface Science, University of North Bengal, Darjeeling. 2013, Best paper award in the International Conference on Water: from pollution to purification, Kottayam, Kerala, Jan. 23-26, 2015. |

**Institute for Intensive Research in Basic Sciences (IIRBS)**

| | • **Prof (Dr.) I. Ibnusaud:** | |
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| | **Best paper award** for the paper presented in '**Chirality 2004'** held at New York University, New York U.S.A.(2004). | |

**KN. Raj Centre for Planning and Centre-State Relations**

| | • **Girish Kumar R:** | |
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| | Jean Monnet Fellowship, European University, Florence, Italy 2010 (International Level) Ministry of Trade and Commerce, WTO Chair Professor, Central University of Kerala(National Level) | |

**National Institute of Plant Science Technology**

| | | • **Alan Thomas S**: |
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| | | Best paper presentationaward at International seminar on emerging trends in organic farming and sustainable agriculture held at Kottayam during 29th to 31st December 2016 |

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| | • **Anto Joseph** : Best paper presentation award at The National Seminar on Plant science Technology for sustainable world held at Kottayam during February 25$^{th}$ -26$^{th}$ 2016 |

**b) National and International recognition received by the faculty from reputed professional bodies and agencies**

| Name of School /Department | National & International recognition recieved by Faculty & Students |
|---|---|
| School of Chemical Sciences | 1. Fellow of the Royal Society of Chemistry, London, FRSC, 2012<br><br>2. **Prof. Sabu Thomas was** awarded Bronze Medal of Chemical Research Society (CRSI) of India, 2013<br><br>3. **Prof. Sabu Thomas** was Distinguished Professorship Award, Josef Stefan Institute, Slovenia,2010 |
| School of Environmental Sciences | **Faculty**<br>1. **Dr.C.T. Aravindakumar** has been selected as an invited member of the Oslo Governance Forum (OGF), Oslo (UNDP) 2011<br><br>2. **Dr.E.V.Ramasamy** has been nominated as a member of the *State Waste Management Policy Committee* by the *Local Self Government Department, Govt. of Kerala (November 14, 2012)*<br><br>3. **Dr. Mahesh Mohan** got the DST-SERB Fast Track Project for Young scientist<br><br>4. **Dr.E.V.Ramasamy** has been nominated as a member of the Special Board of Studies in Pollution Control and Environmental Engineering of Pondicherry University (October 26, 2012)<br><br>5. **Dr.C.T. Aravindakumar** has been selected as Visiting Professor (with full Professor status) at the University of Paris-East (Department of Geology and Environment) 2013<br><br>6. **Prof.C.T. Aravindakumar** has been selected as Visiting Professor at the University of Paris-East with full professor status, 2015<br><br>7. **Prof.C.T. Aravindakumar** has been nominated as the Governing Council member and Executive Committee member of the Kerala State Institute of Climate Change Studies-2014<br><br>8. **Dr.E.V.Ramasamy** has been nominated as a member of the *State Waste Management Policy Committee* by the *Local Self Government Department, Govt. of Kerala , attended several meetings of the committee during 2014-15* |

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| | 9. **Dr.E.V.Ramasamy** has been nominated as a member of the *Technical Committee* of Suchitwa Mission , *Local Self Government Department, Govt. of Kerala , attended several meetings of the committee during 2014-15* |
| | 10. **Prof.C.T. Aravindakumar**, was invited as a Team Leader in Environmental Science to formulate the research policy of the Ministry of Earth Science in India's Polar Research (Arctic/Antarctic/Southern Ocean/Himalaya) for the next 10 years. The Brainstorming Meeting on *Polar Sciences and Global Water Cycle* was held at the National Centre for Antarctic and Ocean Research (NCAOR), Goa during April 13-14, 2016. |
| | 11. **Prof.C.T. Aravindakumar** was invited as an expert for identifying research proposals for the *India's 36th Antarctic Expedition 2016.* The workshop was held during June 9-10, 2016 |
| | 12. **Prof.C.T. Aravindakumar** was nominated to the Expert Panel of the *Water Technology Initiative (WTI)* of the Department of Science & Technology, Govt. of India 2015 |
| | 13. **Dr. Mahesh Mohan** was the team leader selected for the Indian Arctic Expedition (July, 2015) |
| | 14. **Dr. E.V.Ramasamy**, Associate Professor, has participated in the selection committee meeting of the CWRDM (Centre for Water Resources Development and Management ),Kozhikode as a subject expert in the interview board for the selection of Scientist-B during July 02- 03, 2015. |
| | 15. **Dr. E.V.Ramasamy**, Associate Professor, has participated as the member of Board of Studies for the the B.Voc. Programme on Environmental Assessment and Remediation on Monday the 14th September, 2015, at Virudhunagar Hindu Nadars'; Senthikumara Nadar College, (Autonomous), Virudhunagar, Tamil Nadu. |
| | 16. **Dr E.V. Ramasamy**, Associate Professor, has participated in the Technical Committee meeting for evaluating the technical presentations of the organisations who have short listed for New Technologies on 28.11.2015 at 10.30 A.M onwards at the Office of State Institute of Health and Family Welfare, Thycaud, Thiruvananthapuram, organised by Suchitwa Mission, Local Self Governance Department (LSGD), Govt. of Kerala |
| School of International Relations& Politics | **Faculty** <br> **Dr. K.M. Seethi** <br> **1.** Invited to be on the panel of the presentations at the Gulf Research meetings at the University of Cambridge in 2012, 2013 & 2016. |

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| | **2.** Nominated as expert Working Group on NORKA, Kerala State Planning Board in 2016.<br><br>**3.** Invited to be an expert at the ICSSR, New Delhi for reviewing Internatioanl collboration projects.<br><br>**4.** Serving as UGC expert of the Center for Advaced Studies (CAS), University of Hyderabad.<br><br>**Researcher**<br><br>1. Best Researcher Award in Political Science granted to **Ms. Anju Lis Kurian** by the Indian Political Science Association in 2014-15. |
| School of Letters | 1. **Dr. P.S Radhakrishnan** received national film award (best film critic) by the Govt of India for the year 2014.<br><br>2. **Dr. Aju K N** received Dr. B R Ambedkar National fellowship award by Bharateeya Dalit Sahithya Akademy, New Delhi in 2012. |
| School of Pure & Applied Physics | **Dr Indulekha K**<br><br>1. Executive Committee Member, Square Kilometer Array India Consortium<br><br>2. Visiting Associate, Inter University Centre for Astronomy & Astrophysics, Pune<br><br>**Dr Nandakumar Kalarikkal**<br><br>1. Visiting Fellow, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India<br><br>2. Visiting Professor, Gulbarga University, Gulbarga, Karnataka under SAP scheme of UGC<br><br>3. Visiting Professor, Alemaya University & Mekkele University, Ethiopia<br><br>4. Conference Fellowship Award of the Seventh International Conference on Phonon Scattering in Condensed Matter held at Cornell University, USA<br><br>**Students**<br><br>1. Microstructure and physical properties of multiferroic hexagonal ErMnO3 thin films. The second international conference on Optoelectronic materials and Thin films for Advanced Technology (OMTAT 2013), Cochin University of Science and Technology, Cochin, January 3-5, (2013) **- second position in poster presentation for Raneesh B (PhD student)**<br><br>2. Enhanced dielectric and magnetoelectric coupling in BiFeO3-NaNbO3-PVDF-TrFE films, Rehana P Ummer, Raneesh B, Laurent Badie, Didier Rouxel, Sabu Thomas and Nandakumar Kalarikkal, 15 th National Symposium on Material Science , IIT Bombay, Mumbai May 18-24 (2015) **- best award for oral presentation to Ms Rehana P Ummer (PhD Student)** |

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| | 3. **Best paper Award in Physical Science** in the 26th Kerala Science Congress held at Kerala Veterinary and Animal Science University Wayanad during 28 to 31 Jan 2014 for the paper entitled "Ultrafast optical non-linearity in CuS nanocrystal" **to Ann Mary K A** |
| | 4. Fluorescence probing Ascorbic acid by L-Cystine caped $Mn_3O_4$ nanoparticles **Best poster Presentation award to Prasanth S,** in the national seminar on Photonics and Its application held at University of Kerala during Dec 9-11 2015 |
| | 5. SPR based Fibre Optic Mercury Sensor based gold Nano particles- **Best Oral presentation by Rithesh Raj** at the National seminar on Advances in Crystal Growth and Nanotechnology held at CSM College Kottayam during Jan 15-16, 2016 |
| | 6. Synthesis and Photo-luminescence Characterization of green-red emitting CaB2O4:Er3+, Li+ phosphor –**Best Poster Award for Remya Mohan** at the National Seminar on nano-scale Science & Technology, Devmatha College, Kuravilangad 2015 |
| | 7. Liquid Phase Exfoliation of graphite oxide into graphene oxide quantum dot with blue photo-luminescence – **Best Poster Award for El Hadji Mamour Sakho** at the International Conference on Advanced Materials for Power Engineering 2015 conducted by Wroclaw Technical University & Mahatma Gandhi University 2015 |
| School of Letters | 1. **Dr. P.S Radhakrishnan** received national film award (best film critic) by the Govt of India for the year 2014. |
| | 2. **Dr. Aju K N** received Dr. B R Ambetkar National fellowship award by Bharateeya Dalit Sahithya Akademy, New Delhi in 2012. |
| School of Tourism Studies | 1. **Dr. Robinet Jacob**, Conference chair in the annual conference of International Society of Travel and Tourism Educators, Miami, USA 20-22 October, 2011 |
| | 2. **Dr. Robinet Jacob** has been nominated as Member, Expert Committee for evaluating Major Research Projects (Tourism), University Grants Commission, New Delhi, July 2014 |
| Department of Lifelong Learning and Extension | 1. **Dr.K.Sabukuttan** received Life time Achievement Award 2014 for promotion of yoga and Naturopathy from the Indian marital Arts Academy Thrissur, Kerala |
| | 2. **Dr.K.Sabukuttan** received Sarojini Damodar Foundation Award twice for the recognition of his service in propagating Organic Farming in 100 affiliated colleges under Mahatma Gandhi University during the year 2016 and also for the academic contributions in spreading the message of Organic Farming by starting Certificate and Diploma Courses at the University |

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| | 3. **Dr.K.Sabukuttan** received Certificate of Honour for the incredible contributions in Social Service for the years 2012-13,2013-14 and 2014-15 by Kerala Action Force, Anwar Pain and Palliative Care and IMA Madhya Kerala<br><br>4. **Dr.K.Sabukuttan** received the Youth Promotion Award 2014 from the Centre for Research and Action (CIRA) in recognition of Significant Contribution in the field of Youth Development<br><br>5. **Dr.K.Sabukuttan** received the Best Programme Co-ordinator Award State level during the year 2013-14 and 2015-16<br><br>6. **Dr.K.Sabukuttan** received the Kamala Dalam Award in 2016<br><br>**NATIONAL LEVEL**<br><br>7. **Dr.K.Sabukuttan** received Indira Gandhi NSS Award for the year 2013-2014 for the best NSS Programme Co-ordinator from the Hon'ble President of India Sri Pranab Kumar Mukherjee<br><br>8. **Dr.K.Sabukuttan** received Indira Gandhi NSS Award Certificate of Appreciation for the year 2012-2013 for the best NSS Programme Co-ordinator from the Hon'ble President of India Sri Pranab Kumar Mukherjee<br><br>9. **Dr.K.Sabukuttan** received the IPCAI National Award for the outstanding contributions in the field of Community Organisation through National Service Scheme of Mahatma Gandhi University in November 2016. |
| School of Technology And Applied Sciences | 1. **Dr. K Shreekrishna Kumar**, Eminent Eductionist Award for the year 2016 awarded at Indo-American Education Summit 2016, Banglore by theIndus Foundation<br><br>2. **Dr. Shreekrishna Kumar**, best Civil Servant Golden Lotus Award for the year 2016 awared by the Business Digest Magazine. |
| IIUCNN | 1. **Prof. Sabu Thomas** has been awarded MRSI medal, 2012.<br><br>2. Fellowship of Royal Society of Chemistry, 2012.<br><br>3. Awarded Society For Educational & Scientific Research. (SESR) Nanotech Scientist Award- 2014 |

**3.4.5 Indicate the average number of successful M.Phil and Ph.D scholars guided per faculty during the last four years. Does the university participate in Shodhganga by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access?**

M.G.University is provided with access to UGC-INFONET e-Journal facility provided by the INFLIBNET to selected 199 Universities in India. As per the statistics, the University is placed in the 29th position as on 2013 and 27th position as on 2014. The access to the facility has been extended to remote departments and study centres of the university during February 2015.

Theses are also uploaded in the Shodhganga, the online digital repository of PhD theses developed by the INFLIBNET Centre. M.G.University is one among the topmost contributors of online theses to Shodhganga.

The Ph.D theses awarded by the University are digitized and made available over the internet on open access mode. MGU Online Theses Library (www.mgutheses.in) is the online theses library of the University. The project obtained the e-Governance award of the Govt of Kerala during 2010 and other significant recognitions from INTUIT, U.K and inclusion in UNESCO's library portal.

Theses digital library of M.G.University has been launched by the former President of India H.E. Dr. A.P.J.Abdul Kalam on 8th November, 2008.

**Details of Ph.D Awarded**

| Sl No | Year | Ph.D Awarded | | |
|---|---|---|---|---|
| | | Total | From University Departments | From Affiliated research Centres |
| 2 | 2010-2011 | 102 | 32 | 70 |
| 3 | 2011-2012 | 162 | 42 | 120 |
| 4 | 2012-2013 | 134 | 55 | 79 |
| 5 | 2013-2014 | 149 | 50 | 99 |
| 6 | 2014-2015 | 183 | 60 | 123 |
| 7 | 2015-2016 | 142 | 64 | 78 |
| **Average number of successful PhD scholars per faculty- 3:1** | | | | |
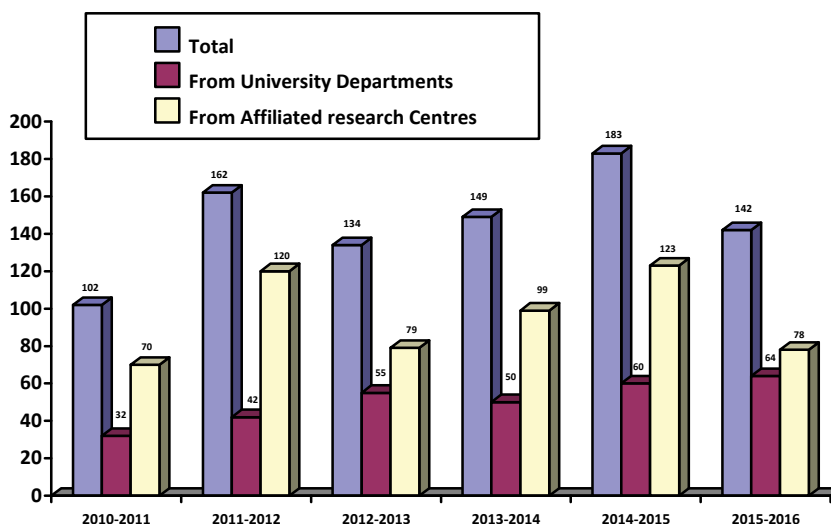


- Total number of M.Phil awarded during 2010-2016 - **252**

**3.4.6 What is the official policy of the university to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.**

Mahatma Gandhi Unversity has introduced the policy of plagiarism checking before the submission of PhD thesis in the University since June 2016. This service of the University is implemented through Central Library of the University. The software used for the purpose is URKUND, which has been provided to the University by INFLIBNET centre, Gujarat. URKUND is a fully automated system, which permits online submission of unlimited logins and pages for piracy checking. The University has made this service mandatory for Ph.D submission as part of improving quality of research output. Towards refining the percentage of significance of plagiarism reported, the library is offering a pre-check service facility before final submission of theses, which has helped to lower the percentage of significance to less than 10%, even though the University has restricted the significance to 25%. So far, more than 500 documents have been checked for piracy using this facility which also includes articles of faculties and research papers. The library provides orientation programmes for researchers about plagiarism checking and this has been well appreciated by the user community.Strict refereeing system is also followed to avoid plagarism.

**3.4.7 Does the university promote interdisciplinary research? If yes, how many interdepartmental / interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavours?**

Yes. The Schools and Centres of the university have been constituted on the basis of interdisciplinarity as the major plank for its academic programmes and research. A new concept of convergence of different disciplines between/ among different Departments /Schools of the university are promoted and an exclusive building called Convergence Academia Complex (CAC) is under construction at an estimate of Rs. 29 Crores. CAC will house all the Inter University and Inter School Centres having diversified programmes in order to promote interdisciplinary research.

**Collaboration with national/Institutes/Industries:**

| Sl No. | Programme | Collaborative institute |
|---|---|---|
| **School of Behavioural Sciences** | | |
| 1. | GFATM Project - SAKSHAM (The Global Fund to Fight AIDS, Tuberculosis and Malaria, Round 7, HIV/AIDS Counselling Programme), 2009-14 | WHO programme funded through Tata Institute of Social Sciences (TISS), Mumbai |
| **School of Biosciences** | | |
| 2. | DBT builder programme with IIUCNN | DBT |

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|---|---|---|
| 3. | Molecular mechanism of antidiabetic activity of Costuspictus (No. 025/IBRS/KBC/2013 Dated. 11.11.2013) | Kerala Biotechnology Commission-KSCSTE- Industry Partner-Arjuna Natural Extracts. |
| 4. | Health promoting capabilities of potential probiotic strains isolated from infant gut microflora | ICMR ( Collaborative project with Dr. Sabu Thomas, Scientist E11 as CO- PI, Rajiv Gandhi Centre for Biotechnology) |
| | **School of Chemical Sciences** | |
| 5. | Respond project from ISRO 2016-2019 | ISRO |
| 6. | Development of high performance rubber nano composites for tyre engineering 2007-2011 | DST-Apollo Tyres |
| 7. | Tuning the properties of stimuli sensitive copolymers- A step towards purification of water 2009-2012 | SERC,DST |
| 8. | High performance polymer blend from epoxy resin and PTT for aerospace application 2009-20012 | DRDO |
| 9. | Carbon nanotube filled natural rubber nanocomposites 2010-2013 | UGC-DAE |
| | **School of Environmental Sciences** | |
| 10. | National Vegetation Carbon Pool – Kerala Region 2011-2013 | IIRS, ISRO |
| 11. | Nationwide Environmental Gamma Radiation Monitoring Using TLDs (A National Mission programme) 2014-2016 | BRNS |
| 12. | Investigation of the spatial distribution of uranium and associated water quality parameters in five central districts of Kerala 2015 onwards | BRNS |

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| **School of International Relations and Politics** | | |
| 13. | Paddy Culture in Kuttanad, Kerala: Folk Traditions, Rituals and Festivals 2012-14 | Indira Gandhi International Centre for the Arts, New Delhi. |
| 14. | MGNREGS Assessment Evaluation Study- Eranakulam District. 2013-15 | State Institute of Rural Development, Govt of Kerala. |
| 15. | MGNREGS Assessment Evaluation Study- Pathanamthitta District. 2013-15 | State Institute of Rural Development, Govt of Kerala |
| 16. | MGNREGS Assessment Evaluation Study- Kollam District. 2013-15 | State Institute of Rural Development, Govt of Kerala |
| **School of Pure And Applied Physics** | | |
| 17. | National pooled funds utilized for the promotion of teaching & research in Astronomy & Astrophysics | MoU with (IUCAA, Pune) |
| 18. | National pooled funds utilized for science development for the Square Kilometer Array | MoU with Square Kilometer Array India Consortium |
| **School of Social Sciences** | | |
| 19. | Rehabilitation Plantation: Socio Economic sustainability', (2005) | Project Sponsored by Rehabilitation Plantation Corporation, Punalur |
| 20. | Evaluation of Ecodevelopment Programme at Periyar Tiger Reserve), (From March, 2009  April, 2011) | Periyar Foundation, Periyar Thekkady. |
| **School of Tourism Studies** | | |
| 21. | "Social Media as an influencer among foreign tourists visiting India" 2014-16 | Indian Institute of Tourism and Travel Management  and Ministry of Tourism, Govt. of India |
| 22. | Discover Kottayam 2014-16 | District Tourism Promotion Council (DTPC), Kottayam |
| **International and Inter University Centre for Nanoscience and Nanotechnology** | | |
| 23. | Dept of Materials Engineering, Indian Institue of Science (IISc), Banglore | |
| | Appollo Tyres, MRF tyres | |
| | Rubber Research Institute of India, Kottayam, Kerala, India - 686 009 | |
| | NIIST, Trivandrum, Kerala, India - 695 012 | |
| | Central Power Research Institute, Bangalore, India - 56094 | |

| | | |
|---|---|---|
| | Vikram Sarabhai Space Research Centre, Trivandrum, India | |
| | Rubber Technology Centre, Indian Institute of Technology, Kharagpur, India | |
| | COMPTECH, Indian Institute of Technology, Chennai | |
| | Polymer Chemistry Division, National Chemical Laboratory, Pune, India | |
| | Sree Chitra Thirunal Institute of Medical Sciences and Technology, Trivandrum, Kerala, India | |
| | Central Institute of Plastic Engineering and Technology, Guindy, Madras, India | |
| | of Polymer Science & Rubber Technology, Cochin University of Science & Technology, Cochin - 22, Kerala, India | |
| | Indian institute of Chemical Technology, Hyderabad, India | |
| | Laboratory of Condensed Matter Physics, Department of Physics, University of Rajasthan, Jaipur, India | |
| | Reliance Industries Limited, Maker Chambers IV, 3rd Floor, 222, Nariman Point, Bombay | |
| | Elastomers Technical Services, Madurai, India | |
| | High Polymer Engineering Division, Department of Chemical Engineering, Indian Institute of Technology, Madras, India | |
| | Department of Chemistry, Karnatak University, Dharwar, Karnataka, India | |
| | Department of Civil Engineering, Indian Institute of Technology, New Delhi, India | |
| | Common Facility Service Centre, Industrial Estate, Changanacherry, Kottayam, Kerala, India | |
| | Department of Physics, University of Mysore, Mysore | |

**Inter University Centre for Biomedical Research & Super Specialty Hospital**

| | | |
|---|---|---|
| 24. | IUCBR and Bangur Institute of Neurology, Kolkata | Bangur Institute of Neurology, Kolkata |
| 25. | IUCBR and Manovikas Kendra, Kolkata | Manovikas Kendra, Kolkata |

**Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)**

| | | |
|---|---|---|
| 26. | Nanofiber structures for efficient enzyme immobilization in membrane applications | Network project between Department of Energy Conversion and Storage, Technical University of Denmark (DTU) and Mahatma Gandhi University (MGU) |

**Inter University Centre For Disability Studies**

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| 27. | Empowerment of Persons with Disabilities (PWDs) through Community Integration" | " Santhigiri Rehabilitation Institute, Vazhithala P.O, Thodupuzha- 685583 |
|---|---|---|
| 28. | "Skill development training programme to the persons with disabilities" | Theeradesa Raksha Social Welfare Society (TRSWS), Reg. No. 566/2001, Sidco building, Beach Road, West Hill P.O, Calicut- 673005. |

**Advanced Molecular Materials Research Centre (AMMRC)**

| 29. | Propellant Burn rate modifiers 2016-18 | ISRO |
|---|---|---|

**KN. Raj Centre for Planning and Centre-State Relations (KNRC)**

| 30. | Conducting Training programmes 2016-17 | Collaboration with Gulati Institute of Finance and Taxation, Trivandrum; |
|---|---|---|
| 31. | Participation in training programmes 2015-16 | Institute for Studies in Industrial Development, New Delhi |

**Collaboration with international institutes / industries:**

| **School of Chemical Sciences (SCS)** | | | |
|---|---|---|---|
| 1. | Hierarchical bio composites from Isora fibres and unsaturated polyester | 2014-2016 | DST-Austria |
| **School of Biosciences** | | | |
| 2. | Dr.J.G.Ray received Prometeo Sabios Fellowship of Ecuador Government to conduct collaborative studies at Ecuador with professors in their university. | | Fellowship of Ecuador Government |
| **School of Environmental Sciences** | | | |
| 3. | Long - Term Monitoring of Kongsfjorden System of Arctic region for climate change studies | 2015-2016 | ESSO-NCAOR, MoES |
| 4. | Long Term Environmental Monitoring of Fjord Ecosystems, Ny-Ålesund (Arctic) | 2016-2017 | ESSO-NCAOR, MoES |
| 5. | Development of Self-contained, PV powered domestic toilet and waste water treatment system. | 2014-2015 | California Institute of Technology, USA |
| 6. | Microbial Fuel Cells | 2014 | University of West of England (UWE), Bristol, UK |
| 7. | An Interdisciplinary and | 2012- | UGC / Obama-Singh |

| | Community Oriented Innovative Approach | 2015 | 21st century knowledge initiative/ with Brown University, Duke University and Plymouth State University |
|---|---|---|---|
| 8. | Pulse radiolysis of biomolecules | 2010-2012 | Indo-French ARCUS Project |

**School of Tourism Studies**

| 9. | Project for Mango Languages | 2011 – 12 | Mango Languages, USA |
|---|---|---|---|

**International and Inter University Centre for Nanoscience and Nanotechnology**

| 10. | Nano biomaterials water purification | 2016-17 | Researcher Links scheme offered within the Newton Fund, the British Council & Royal Society of Chemistry, London |
|---|---|---|---|
| 11. | Cross-linked polyethylene Nano composite for cable insulating application | 2016-17 | University of Mara, Malaysia |
| 12. | The Centre has collaboration with following industries. <br> 3. General Cables, USA, (completed) <br> 4. Surface Treat, Czech Republic, (Running) | | |

**Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)**

| 13. | Nanofiber structures for efficient enzyme immobilization in membrane applications | 2016-2019 | Network project between Department of Energy Conversion and Storage, Technical University of Denmark (DTU) |
|---|---|---|---|
| 14. | Advanced membrane processes for water purification | 2016 | Ben-Gurion University, Israel. |

**Advanced Molecular Materials Research Centre (AMMRC)**

| 15. | "Study of fundamental Chemical and Physical properties of magnetic ionic liquid nanofluids". collaboration with Department of Physics, Rzeszow University of Technology, Poland | 2015-17 | DST, Govt. of India & (funding agency in Poland) |
|---|---|---|---|

### 3.4.8 Has the university instituted any research awards? If yes, list the awards.

Yes.

The following are the research awards instituted by the University which has been included in the University budget from the financial year 2015-16.

| Sl. No | Name of Award | Funds earmarked (Rs. In lakhs) |
|--------|---------------|-------------------------------|
| 1 | Young Scientist Award | 5 .00 |
| 2 | Project Seed Money | 20.00 |
| 3 | Incentive for Patent | 10.00 |
| 4 | Incentive for publication in first class referred journal | 10.00 |
| 5 | Incentive for publication of original books | 10.00 |
| 6 | Best Teacher Award | 1.00 |

### 3.4.9 What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?

Felicitation programmes to honour faculty is organized by University. Recently Prof. Sabu Thomas has been falicitated for his outstanding achievements in teaching and research.

### 3.5 Consultancy

### 3.5.1 What is the official policy of the University for Structured Consultancy? List a few important consultancies undertaken by the university during the last four years.

The University promotes consultancy services through its Schools and Centres which offers wide range of services and the funds generated are deposited in the concerned Department Development fund/Consultancy account.

**School of Behavioural Sciences**

The school offers consultancy services in the area of mental health and disability identification and rehabilitation. Since there are social issues where maximum awareness creation and provision of services are required, most of the services are provided free of cost. A nominal fee is collected for audiometry, physiotherapy etc. Also the intellectually challenged students attending the vocational rehabilitation unit of the School are given a nominal remuneration for the physical work they do in the centre. The SANTHWANAM counselling centre working in the School offers mental health consultancy services to the child and adolescent clients referred from medical colleges, Institute of Child Health, District hospitals, schools, colleges and so on. The services of an expert clinical psychologist is provided for psychological testing and assessment. The centre also gives certificates regarding Intellectual disability and learning disability and is

accepted as a competent authority in this regard by the Department of Education and Government Medical colleges. Counselling and guidance to the students and parents of the Vocational Training Centre of School of Behavioural Sciences and their assessment have been carried out in the clinic at regular intervals. All the services of this centre is extended free of cost to enable better access to the needy population.

The year wise distribution of the clients attended the clinic is as follows (March 2011-September 2016)

| Year | No. of New Cases | No. of follow up cases. |
|---|---|---|
| March- December 2011 | 216 | 198 |
| January – December 2012 | 300 | 214 |
| January – December 2013 | 288 | 262 |
| January – December 2014 | 166 | 122 |
| January – December 2015 | 450 | 306 |
| January – December 2016 | 372 | 198 |

## School of Environmental Sciences

- Water quality testing (20% to consultant/student and 80% to University as DDF)
- Analytical consultancy (100 % to University as DDF)
- Remote sensing and GIS consultancy by Dr. R. Satheesh Centre for Remote Sensing & GIS) of the School.

## School for International Relations and Politics

- The School of International Relations and Politics conducted a Consultancy Project sponsored by the Kerala State Rural Development (SIRD), Government of Kerala in respect of the Impact Assessment Study of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in the districts of Ernakulam, Kollam and Pathanamthitta. The projects were completed and the Reports of these studies were submitted to the SIRD in November 2015.

## School of Indian Legal Thought

- Legal Literary Camps are regularly conducted However, it is done more as a Service rather than consultation

## School of Management and Business Studies

- Provided consultancy services to Catholic Syrian Bank Ltd in the selection for the post of Clerk-cum-cashiers for the Kottayam Zonal office in 2014.
- Provided consultancy services to Kureepuzha cooperative society in the staff selection to various positions in 2014 and 2015.

**School of Tourism Studies**

- Provided consultancy services for Department of Tourism, Government of Kerala and District Tourism Promotion Councils (DTPC) of Kottayam and Ernakulam districts Rs. 166002/-

- Certified Tour Advisor Programme (CTA) along with District Tourism Promotion Council – Ernakulam (January 2015) – Rs. 20000

- Mango Languages, USA – 75000/- (2011 – 12)

**International & Inter University Centre for Nanoscience and Nano Technology-IIUCNN**

- International & Inter University for Nanoscience and nanotechnology undertakes consultancy work from companies and research labs. The active company partner is Lipids India Limited for whom extraction, chemical characterization and Product development services are offered.

- Other consultancy work for Reserach Projects with different colleges.

**3.5.2  Does the university have a university-industry cell? If yes, what is its scope and range of activities?**

University has established Business Innovation and Incubation Centre which is currently facilitating active university-industry interactions. This cell is responsible for the conduct of frequent university-industry interface meeting at the campus. This will lead to large scale funded research project at schools and centres of the university from industry leading to new technologies and products with the help of the incubation Centre.  This will facilitate several spin-off technologies which will ultimately lead to commercial production.

**3.5.3  What is the mode of publicizing the expertise of the University for Consultancy Services? Which are the departments from whom consultancy has been sought?**

The universities publicizes the expertise for consultancy services by the following ways.

1. Through website
2. Press release
3. University- Industry Interface Meetings
4. Through conferences and workshops being organised by university and other agencies.

The details of income generated are given below.

| Total Income from Consultancy | | |
|---|---|---|
| SL. No | **Name of the Department** | **Income generated (Rs in Lakhs)** |
| 1 | International & Inter University Centre for Nanoscience & Nanotechnology | 14.45 |
| 2 | School of Environmental Sciences | 5.62 |
| 3 | School of Pure and Applied Physics | 5.6 |
| 4 | Inter University Instrumentation Centre | 5.46 |
| 5 | Inter University Centre for Disability Studies | 5.17 |
| 6 | School of Behavioural Sciences | 3.86 |
| 7 | School of Chemical Sciences | 3.53 |
| 8 | School of Tourism Studies | 2.6 |
| 9 | School of Physical Education and Sports Sciences | 1.8 |
| 10 | School of International Relations &Politics | 1.62 |
| 11 | Advanced Centre for Environmental Studies and Sustainable Development | 1.2 |
| 12 | School of Management and Business Studies | 0.7 |
| | **TOTAL** | **51.61** |



Income from Consultancy (Rs. in Lakhs)
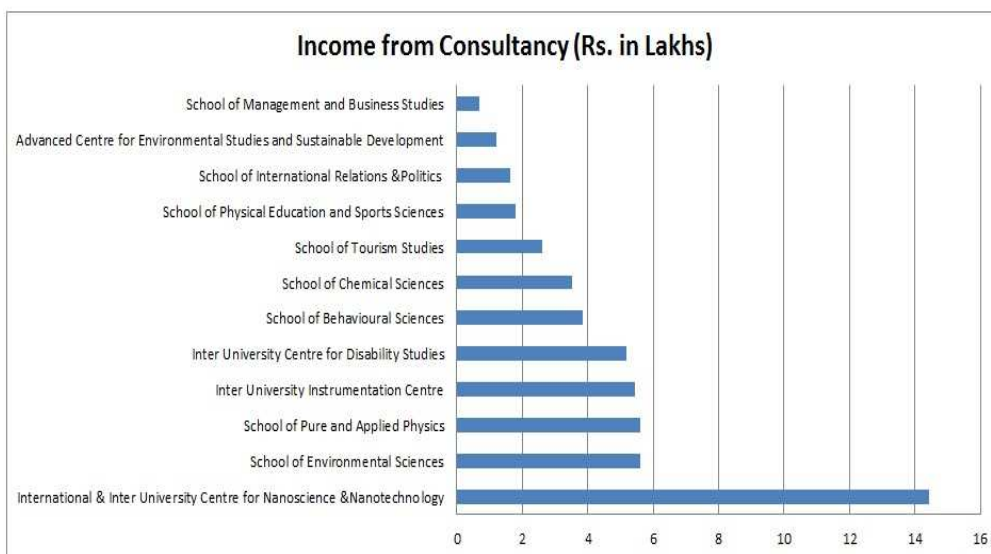
The mode of publicizing the expertise of the university for consultancy services is through the websites of the Schools and Centres. The capabilities of the institutions are widely publicised through conferences, meetings and workshops.

Consultancy has been sought from School of Environmental Sciences, School of Indian Legal Thought, School of Tourism Studies, School of International Relations and Politics, International & Inter University Centre for Nanoscience and Nanotechnology, School of Physical Education and Sport Sciences, School of Pure & Applied Physics, School of Behavioural Sciences, Inter University Instrumentation Centre etc.

### 3.5.4 How does the university utilize the expertise of its faculty with regard to consultancy services?

Initiatives for consultancy work have to come from the faculty. Funds generated through the consultancy services are pooled into the Departmental Develpoment fund which is utilized for the developmental activities of the Department.

### 3.5.5 List the broad areas of consultancy services provided by the university and the revenue generated during the last six years.

### School of Chemical Sciences and School of Environmental Sciences

Analytical facilities are made available to research scholars of other Schools / centres /colleges and these are offered for use on a suitable payment basis.

### School of Environmental Sciences

1.  Analytical consultancy (100 % to University as DDF)

| Year | Amount generated through instrument usage (for eg.: LC/MS) (Rs) | Amount generated from Dissertation works of students from other institutions (Rs) |
|---|---|---|
| 2011-12 | 70,450 | 1000 |
| 2012-13 | 17,700 | Nil |
| 2013-14 | 8400 | 45,500 |
| 2014-15 | 16,600 | 43,000 |
|  | Total | 2.02 lakhs |

2.  Remote sensing -GIS consultancy by Dr. R. Satheesh Centre for Remote Sensing & GIS) of the School of Environmental Sciences, Mahatma Gandhi University, Kottayam  during the period from 2011 to 2016

| Sl. No. | Title of the work | For whom | Funding under | Amount (Lakhs Rs.) | Financial Year |
|---|---|---|---|---|---|
| 1 | Agro-ecological zoning of Idukki district for locating new meteorological stations | Spices Board (Indian Cardamom Research Institute,Maldumpara, Idukki) | ISRO-IGBP programme | 0.34 | 2011 |
| 2 | Short-term training | School of | TEQIP Phase | 0.70 | 2013 |

| | | | | |
|---|---|---|---|---|
| | programme in GIS, Remote Sensing and GNSSs to Engineering faculty members (20 Nos.) | Engineering, Cochin University of Science and Technology, Kochi | II of AICTE, Govt. of India | | |
| 3 | One week customized Training on Digital Image Processing to M. Tech students (12 Nos.) | Govt. College of Engineering, Kushalnagar, Karnataka | College Fund | 0.21 | 2014 |
| 4 | GIS analysis of L2 landscape area of Konni Forest Division, Kerala | Tropical Institute of Ecological Sciences (TIES), Velloor, Kottayam | Perspective plan for Green India Mission by Kerala Forests & Wildlife Department, Govt. of Kerala | 0.34 | 2014 |
| 5 | GIS based digital spatial database and Map Atlas creation at a scale of 1:4000 with 208 maps of the river sand auditing of Muvattupuzha River' | Tropical Institute of Ecological Sciences (TIES), Velloor, Kottayam | River Management Cell, Reevenue & Disaster management Dept., Govt. of Kerala | 1.23 | 2015 |
| 6 | Assessment of sequestration potential of trees in Kochi city with the changing vegetation pattern | Nansen Environmental Research Centre India (NERCI), Kochi | DST funded project "Atmospheric carbon sequestration potential of trees in Kochi city under the changing environmental scenario" | 0.45 | 2015 |
| 7 | GIS based digital spatial database creation, spatial analysis and map generation at a scale of 1:4000 of six selected stretches of Chalakkudy River | Tropical Institute of Ecological Sciences (TIES), Velloor, Kottayam | Corporate Social Responsibility (CSR) Fund of Appollo Tyres, Ernakulam | 0.32 | 2016 |
| Total revenue from consultancy during the period | | | | 2.02 + 3.59 = **5.62 Lakhs** | |

**School of Physical Education and Sport Sciences:**

Rs 1.80 Lakhs generated annually in DDF fund from consultancy services.

**School of Pure & Applied Physics**

Department offers help with the modalities of use of the sophisticated instruments made available for the use of researchers from other institutions and these are offered for use on a suitable payment basis. Rs 5 lakhs has been generated from consultancy service.

**School of Internatioanl Relations and Politics**

The School of International Relations and Politics conducted a Consultancy Project sponsored by the Kerala State Rural Development (SIRD), Government of Kerala in respect of the Impact Assessment Study of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in the districts of Ernakulam, Kollam and Pathanamthitta. The projects were completed and the Reports of these studies were submitted to the SIRD in November 2015. The total project cost was Rs 16.2 Lakhs. Income generated from the projecs was Rs 1.62 Lakhs which became part of DDF.

**School of Tourism Studies**

Rs. 2.61 Lakhs generated at Department Develpoment Fund (DDF) through consultancy services offered to District Tourism Promotion Councils of Kottayam and Ernakulam.

**3.6    Extension Activities and Institutional Social Responsibility (ISR)**

**3.6.1    How does the university sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience during the last four years.**

The university sensitizes its faculty and students on its institutional social responsibilities by inviting social activists, social scientists etc to interact and motivate the students and faculty on socially relevant issues.The various schools/centres of the university have involved in a wide range of social outreach programmes related to their major areas of specialization. They also include the activities of National Sevice scheme which got national awards for their meritorious service to the society. Some of the important outreach programmes of the schools/centres are listed below:

**School of Behavioural Sciences**

Extension activities are one of the important functions of the school. In the "Swanthanam" Clinic of the school, a clinical psychologist offers testing and diagnosing of various issues as well as providing counselling services.

A rehabilitation centre is also functioning in the department where persons with disabilities are receiving training in file board making and tea vending machine operations.

Extension lectures to make aware the public is another activity. Faculties and research scholars are engaged in conducting such camps and lectures in the

community. Identification and assessment of various disabilities are conducted under extension activity.

## School of Chemical Sciences

1. **One Day in the Campus:** To inculcate an aptitude for science among school children, 'one day in the campus' programme was organized which include workshop and interaction with an eminent scholar. Students from nearby government schools are usually invited for this programme.

2. Faculties acted as Resourse persons in INCULCATE and INSPIRE Programmes.

3. Conducted Quiz competition for students from various affiliated colleges.

4. Conducted Exhibition for school children (Govt.and Aided school).

5. Faculty members are usually offer talk/motivation class in schools and colleges.

## School of Environmental Sciences

School of Environmental Sciences being an interdisciplinary department, extension activities of social relevance form an essential mandate of the School. In this context, every year students are encouraged to undertake extension activities as part of their curriculum. Students under the supervision of faculty members do involve in extension activities such as conducting social surveys, creating environmental awareness and major extension activities benefitting the society such as

1. Rainwater harvesting.

2. Rainwater for humanity programme.

3. Open house programme conducted for the school children to visit the school, its laboratories and more specifically the 'Jeeveka Live Laboratory'.

4. Energy conservation and water conservation studies by the MSc students.

5. Energy audit and Municipal Solid Waste audit as groups done for the campus by the PG students.

6. Water quality testing for the public which involves students and faculty members.

7. Participated in ecorestoration programme of Forest Department at Pampadum Shola national park.

8. Students take part in surveys such as fish cout, butterfly count, bird count and wildlife survey conducted by varios NGOs, R&D institutions, and Forest Department.

## School of International Relations and Politics.

School of International Relations and Politics, Mahatma Gandhi University hosted a social outreach programme in collaboration with  Rajya Sabha T. V by organising panel discussion on the theme, "Kerala vs Gujarat: Which Model is Right for India" held on 11 September 2013 which was telecast as part of RS TV's regular programme "India Interacts." The panel consisted of

Bharat Bhushan (Senior Journalist, New Delhi), Mr. Mani Shankar Aiyar (Former Union Minister and Member of Parliament), Mr. Sheshadri Chari (Member of Parliament), Mr. K.N. Harilal (Fellow, Centre for Development Studies) and John Samual UNDP. (https://www.youtube.com/watch?v=qkFmKAhlB3c ). The school also hosted an young scholars conference in 2014 for researchers from various universities in India for interactions with senior scholars in the field. The faculty members also offered extension lectures as social out reach programme.

**School of Indian Legal Thought**

Legal Aid Programmes and Legal Literacy Programmes:The legal aid cell of the school provides assistance to poor and needy who cannot approach the court for disposal of their disputes. Former students of the department voluntarily assist the department for bringing up disputes before various courts. The legal aid cell also dispose disputes by involving in mediation.

**School of Tourism Studies**

Student groups undertook community projects on real-time tourism management issues with social relevance using a problem based learning approach and it offered real and practical value to them. Examples of community oriented projects include assessment of Barrier free Tourism in the major destinations of Kerala, Study on plant and wood based souvenirs of Kerala, Traditional farming practices of Kottayam district and its relevance in tourism promotion, Women entrepreneurship in Tourism etc.

**School of Physical Education and Sport Sciences**

The Students of the School take part in blood donation campaign.

1. School organizes summer coaching camp in different sports and games.
2. Sending students for organizing tournaments and programs to different organizations.
3. School runs a Fitness centre for the society for the promotion of good health.
4. Awareness programmes on good Health practices are given to public through the Department Fitness Centre.
5. All MPEd Students were appointed as the volunteers and venue Assistants for the conduct of 35th National Games, Kerala, 2015.

**International and Interuniversity Centre for Nanoscience and Nano Technology –IIUCNN**

1. Prof.Sabu Thomas gave talks on Green Farming and Plastic Recycling at the Villages in Kaduthuruthy.
2. The Students and Faculty visits orphanages and provided monetary support.

**3.6.2 How does the university promote university-neighbourhood network and student engagement, contributing to the holistic development of students and sustained community development?**

The Department of Life Long Learning and Extension is the leading Department entrusted with extensive extension activities. The Department is

regularly conducting home stay camps in the nearby villages including Nalpathimala Village, adjoining the MG University campus. The students are accommodated in the houses of the villagers for a week. Interaction and living with the villagers will have a positive impact on the outlook of the students towards the society. They get service orientation by engaging themselves in the social service activities, charity work, volunteering, setting up of public spaces like library, road construction, medical camps, blood donation camp, cancer detection programme, awareness programmes on drug use and alcoholism. The students will be sensitized on various aspects of personality development, communication skills, computer and web literacy. Legal literacy is also provided to the students. They are promoted to participate in the democratic process besides imparting citizens' rights and duties.

**3.6.3 How does the university promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and otherNational/ International programmes?**

The university has formed a department for Life Long Learning Extension which is engaged in a wide range of extension activities. The NSS unit has done exemplary service to the society for which it has got many national and state awards.

Department of Life Long Learning and Extension coordinates the following activities: nature camps, organic farming, water quality preservation, river protection campaigns, green campaigns, social forestry, waste management initiatives, road safety campaigns, public health campaigns, sensitization on cruelty against women and voting related campaigns of the election commission.

**School of Physical Education and Sport Sciences**

1. Conducts summer coaching camps for school students in different Sports and Games.
2. Effectively runs a Fitness Centre for Students, Staff and Public.
3. Conduct various short term coaching camps and other physical activity programmes in neighbouring Schools and Colleges.
4. The students have active participation as Officials in various major tournaments within the State.
5. All students acted as volunteers and venue Assistants in 35th National Games, Kerala, 2015.

**3.6.4 Give details of social surveys, research or extension work, if any, undertaken by the university to ensure social justice and empower the underprivileged and the most vulnerable sections of society?**

The various schools/centres have undertaken a number of activities in their area of specialization to ensure empowerment of the marginalized. Some of the major activities are listed below:

**School of Environmental Sciences**

Students under the supervision of faculty members do involve in extension activities such as conducting social surveys, creating environmental awareness on energy conservation and water resource management.

**School of Behavioural Sciences**

The School of Behavioural Sciences encourages research work among underprivileged and vulnerable sections of the society. Some of the research projects done by the research scholars during the past years include studies among street children, residents of destitute homes, old age homes, special schools, personality of young adult women staying in slums etc. Studies were done among tribal people of Attappady, Agasthyakoodam tribal area as well as among students belonging to tribal community from Idukki, Palakkad, and Wayanad districts.

**Department of Life Long Learning &Extension**

The major extension and outreach programmes undertaken by the department are given below:

1. Set up one hundred organic Farming Clubs
2. Learning Disability Early Detection Camps
3. Counselling sessions for parents and students with Learning Disability
4. Social Rehabilitation of differently-abled
5. Yoga for the Masses- A Public Health Initiative
6. 100 Yoga Clubs
7. Counsellor On Call programme
8. Environment enrichment Programmes
9. River Protection Activities in Periyar, Meenachil and Pampa rivers
10. Preventive Medical Camps
11. Tree Planting

The Department in association with the National Service Scheme of Mahatma Gandhi University and conducted the following Intercollegiate Programmes.

1. Training Programme for making Eco-friendly Paper bags-06/08/2011
2. One day seminar-The role of judiciary in social justice-23.2.13
3. One day seminar on Personality Development-11.1.2014
4. One day workshop on Gandhian Principles-28-10-2014
5. Three day camp-Pampa Sabarimala Environment conservation-05-07, December 2014
6. One day programme-Dr.A.P.J.Abdul Kalam-the visionary who walked ahead of times-15-10-2015
7. Intercollegiate workshop-"RAKSHAN -16 on the topic of disaster management-12/2/2016-14/02/2016
8. One day intercollegiate seminar on organic farming and sustainable agriculture-27/02/2016
9. Three day camp on Media-19/08/2016 to 21/08/2016

**School of Tourism Studies**

The students have undertaken access audit and assessment of Barrier Free Tourism in major destinations of Kerala for three years. The projects have created an awareness of the need for universal design, accessible accommodation, transportation and accessible public amenities in the state.

**3.6.5 Does the university have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?**

All activites are organized under the guidance of any one of the Schools/Centres/Departments which provides the University a direct means to track involvement of vaious activities of NSS and other extension programmes. Students are encouraged to participate in various essay competitions connected with national interests. The School of Pure and Applied Physics had hosted the Shastrapratibha competition for inculcating scientific temper in school students and 'student' police cadets, conducted by the Swadeshi Science Movement and the research scholars of the department had rendered voluntary service in conducting the competitions. Students of various schools/centres have participated in the blood donation camps. Students and faculties raise funding in different occassions for supporting financially weak students who suffer from varoius chronic ailments.

**3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the university, how did they complement students'academic learning experience? Specify the values inculcated and skills learnt.**

**School of Behavioural Sciences**

The extension activities were designed to promote building of knowledge along with requisite skill to perform adopting a positive attitude. Hence before each programme a participatory planning is done specifying the objectives and requirement of each of the activity. This helps the students to have a realistic perception of the needs of the community and to respond adapting to their situation. The real life situations help in identifying the practical issues in applying theoretical knowledge in the social context. Respect for life, society, social norms are also fostered through this approach. Civic consciousness also is awakened and the student is helped to identify his responsibility as an educated member of the   society.

**Archeological Museum in School of Social Sciences**

School of Social Sciences has an archaeological museum of approximately 850 sq.ft. The theme of the museum collections is based on the history of Kerala. It's a walk through the Paleolithic, Mesolithic, Neolithic, Megalithic periods to the medieval period.  The objects are displayed in a chronological sequence along with posters explaining the historical significance.  The major collection consists of a variety of artifacts of different periods and form different regions. The collection includes different varieties of pottery (Redware, Blackware, Black and Red Ware, Rouletedware, Chinese and glazed Islamic ware) burial urns, iron implements, beads, coins,Vattezhuttu

inscription and stones sculptures.Students are given a hands on experience in learning archaeology in the museum.

**Department of Life Long Learning &Extension**

- Socio-economic survey was conducted among the traditional artisans and craftsman in Central Travancore. Later Technical advice was imparted to the artisans and craftsmen to improve their efficiency levels for which workshops were conducted. Hassle –free production processes were chalked out. Later the produce of the artisans were exhibited in the University Campus at THANIMA for exposure and sales. All prominent artisans were honoured by the University.

- Socio Economic Survey is being conducted in the Ward VIII of Athirampuzha (Central) Panchayat, which has been chosen for adoption recently.

- Geriatric Mental Health survey in association with Department of Masters in Hospital Management, SME, before initiating interventions for Alzheimers disease.

- Socio- Economic survey planned in Edamalakkudy, the lone Adivasi Panchayat in South India for appropriate interventions with the active support of the Alumni Association. Proposal for setting up of a Cultural Centre in Edamalakkudi is under progress.

**School of Tourism Studies**

The activities of students from School of Tourism Sudies include social surveys, data collection, project management and case study done in consultation with local tourism/leisure industry suppliers. The programme is monitored and evaluated and is used to refurnish and acquire knowledge. This is used to acclimatize with the syllabus and distribution of knowledge. These community based academic activities complement the student's holistic academic development as they have to undergo a process of transparency and team work. The students also learn various leadership, communication and problem solving skills.

**3.6.7 How does the university ensure the involvement of the community in its outreach activities and contribute to community development? Give details ofthe initiatives of the university which have encouraged community participation in its activities.**

**School of Environmental Sciences**

The School of Environemntal Sciences has given top priority to research with a focus to benefit the society. The school has identified lack of drinking water and sanitation as the two key issues faced by the rural society of this region. Research finding of this school has narrowed down to installation of rain water harvesting structures in a rural village 'Achinakom' in Vechur Panchayath where acute drinking water scarcity has been noticed due to saline water contamination. The school has started an extension programme 'Rain water for Humanity'in collaboration with Brown University (USA) through which about 25 rainwater harvesting structures (both individual as well as community level structures) have been successfully installed. The highlight of this program is all these structures were constructed with the society's

participation and the people of this region maintain these structures by themselves. Based on the success of this programme, the school was granted the prestigious Indo- US collaborative project of UGC 'Singh – Obama 21st century Knowledge Initiative (UGC-OSI)'. The funding through this project helped to continue its research on establishing more cost effective rainwater harvesting structures and on sustainable sanitation suitable to this region.

**School of Behavioural Sciences**

The School of Behavioural Sciences ensures involvement in community activities and contribution to community development in its teaching research and extension activities. Some of the activities are given below:

- The School organised a hearing assessment camp collaborating with National Institute of Speech and Hearing, Thiruvananthapuram. Hearing aids were distributed free of cost for those found to have conductive hearing loss.

- During Onam festival, the NSS volunteers of the School identified eligible persons in the neighbouring Panchayat with help of local leaders and extended help in meeting their basic requirements.

- Organised a series of extension activities in the community to promote awareness regarding disability and rehabilitation under the programme JOTHIRGAMAYA.

- Organised and conducted medical camps to facilitate early identification of developmental disabilities under the scheme PRATHEEKSHA

- Organised and conducted a series of training programmes for ASHA workers, and parents to enhance skill in rehabilitation of persons with disabilities under the project NAIPUNYA.

- Orientation workshop on Braille – English and Malayalam to school teachers.

- Seminar on National Trust Act, 1999 and Legal Guardian ship for the parents of individuals with autism, cerebral palsy, mental retardation and multiple disabilities.

**Department of Life Long Learning and Extension**

Reaching the fruits of the knowledge developed to the common man through appropriate methodologies is the objective of the Department.

- The Department offers Five programme – Four certificate programmer of six month duration viz Yogic Science, Counselling, Organic Farming, Learning Disability and an year-long Diploma programme in Yogic Science. All the programmes are well received by the students cutting across the wider cross section of the society representing all age groups. The programmes enable the students to get the desired level of proficiency in the respective area. The students mandatorily attends to filed visits and public interface programmes.

- The students of Yoga under the supervision of the faculty regularly conduct extension activity through **Yoga For Masses, a Public Health Initiative.** Basics of yoga is introduced to the public as part of the

initiative, to check growing life style diseases and its impact on the public health, minimizing medicines and its side effects. Healthy disciplined way of living, healthy food habits, positive physical and mental health at moderate cost is imparted through this initiative. Prevention of diseases is the prime concern, ensuring enhanced overall efficiency of the individuals. The initiative has produced amazing results for the participants, students as well as the general public, in checking of unhealthy practices, as well as minimizing of the psychosomatic disorders, stress, depression and anxiety. 480 Yoga professionals who are appropriately skilled to provide training for the public have passed out from the Department during the last four years. More than 250 Yoga training centres have been launched by the MGU Alumni besides reaching the message of Yoga to more than 25,000 people through mass contact programme.

- To meet the acute shortage of qualified counsellors and for the sensitisation of the society, the department launched its certificate programme in counselling. 400 students covering the wider social circle right from farmers to doctors, engineers, police officials, teachers, nurses, advocates and social workers have cleared the program in the last four years. The Department offers **Counsellor on Call** to the students and educational institutions as and when required. More than 5000 students have been counseled through the system so far. Many Alumni have started Counselling Centres while others got employed or are utilizing their acquired skill sets in their area of work.

- The Department launched a certificate programme in learning disability rendering a helping hand to the suffering parents and their family. The students are trained to assess the EQ level of the children with scientific tools and appropriate intervention possibilities are also taught. They conduct field study and are equipped to recommend corrective mechanisms. The students and the faculty conduct regular Learning Disability Early Detection Camps for appropriate remedial measures for assured progression of the children with disability. Sensitisation programs also conducted for the benefit of the teachers.

- The University came up with the Certificate level programme in Organic Farming which has been well received. The students of the Department have been sent to all colleges under the University as brand ambassadors of organic farming. 100 Organic Farming Clubs have been set up in colleges under the university, and the cumulatively all the Clubs have produced vegetables worth Rs 50 lakhs.

**School of Pure & Applied Physics**

The department had hosted the *Shastrapratibha matsaram* for inculcating scientific temper in school students and 'student' police cadets, conducted by the Swadeshi Science Movement and the research scholars of the department had rendered voluntary service in conducting the competitions which were attended by a large number of students and their parents. Faculty as well as students interacted with the guests to the department in a most effective manner.

**3.6.8** **Give details of awards received by the institution for extension activities and/contributions to social/community development during the last four years.**

| Awards/recognitions |
| --- |
| **Obama Singh 21st Century Knowledge Initiative**<br><br>The School of Environmental Sciences was granted the prestigious Indo- US collaborative project of UGC 'Obama-Singh –21st century Knowledge Initiative (UGC-OSI)'. The funding through this project helped to continue its research on establishing more cost effective rainwater harvesting structures and on sustainable sanitation suitable to 'Achinakom' in Vechur Panchayath region of Kottayam district. |
| Dr.K.Sabukuttan, Head, Department of Life Long Learning and Extension |
| <ul><li>Received Indira Gandhi NSS Award for the year 2013-2014 for the Best NSS Programme Co-ordinator from the Hon'ble President of India Sri Pranab Kumar Mukherjee.</li><li>Received Indira Gandhi NSS Award (Certificate of Appreciation) for the year 2012-2013 for the best NSS Programme Co-ordinator from the Hon'ble President of India Sri Pranab Kumar Mukherjee.</li><li>Received the IPCAI National Award for the outstanding contributions in the field of Community Organisation through National Service Scheme of Mahatma Gandhi University in November 2016.</li><li>Received Life time Achievement Award in 2014 for promotion of yoga and Naturopathy from the Indian Martial Arts Academy Thrissur, Kerala</li><li>Received Sarojini Damodar Foundation Award twice for the recognition of his service in propagating Organic Farming in 100 affiliated colleges under Mahatma Gandhi University during the year 2016 and also for the academic contributions in spreading the message of Organic Farming by starting Certificate and Diploma Courses at the University.</li><li>Received Certificate of Honour for the incredible contributions in Social Service for the years 2012-13,2013-14 and 2014-15 by Kerala Action Force, Anwar Pain and Palliative Care and IMA Madhya Kerala</li><li>Received the Youth Promotion Award 2014 from the Centre for Research and Action (CIRA) in recognition of Significant Contribution in the field of Youth Development</li><li>Received the Best Programme Co-ordinator Award during the year 2013-14 and 2015-16</li></ul> |

**3.7    Collaboration**

**3.7.1   How has the university's collaboration with other agencies impacted the visibility, identity and diversity of activities on campus? To what extent has the university benefitted academically and financially because of collaborations?**

University promotes high level of collaboration with academia and industires from India and abroad.  MoUs and LoAs have been signed with a large number of academic and industrial orgnisations. These collaborations resulted in joint publications, patents and excange of studetns and faculty members. Some of the important collaborations of various schools and Centres are listed below:

**School of Computer Science**

MNC's / organizations with which School of Computer Science constantly interact includes ISRO, C-DAC, C-DIT, NPOL, BARC, Siemens, Keltron, Microsoft, Oracle, Lucent Technologies, Infosys, Wipro, CMC, IMR, BaaN, HP, BFL Software, Pentasoft, US Software, HBS, Suntec, Polus Software  etc. The school also maintains close academic tie-ups with Department of Computational Biology and Bioinformatics, Department of Computer Science, University of Kerala, ISRO Thiruvanathapuram, Cochin University of Science and Technology and Kannur University.

**School of Chemical Sciences**

School of Chemical Sciences has engaged in research activities in collobaration with the following institutions.

- Rzeszow University of Technology, Poland
- University of Ulster, Northern Ireland
- Institute for Polymer Research Dresden (IPF), Dresden, Germany (Prof. Dr. Manfred   Stamm and  Dr. Jurgen Pionteck)
- University Technology Mara (UiTM), Malaysia (Dr. Chan Chin Han)
- Vikram Sarabhai Space Centre, (ISRO), Trivandrum
- Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore
- NIIST(CSIR),Trivandrum
- Université Paris-Sud 11, Orsay, France
- Leibniz-institüt für Katalyse e.V (LIKAT), Rostock, Germany,
- NIIST-C Rajiv Gandhi Centre for Biotechnoloy, Thiruvananthapuram
- Kyushu University, Japan SIR, Trivandrum, Indian Institute of Science, Bangalore
- University of California, Santa Cruz, USA
- Vanderbilt University, USA
- University of Texas in Arlington, USA
- Functional Materials Division, Pusan National University, Busan, Korea
- University of Paris Sud, France

- National Chemical Laboratory, Pune
- University of Alberta ,Canada

## School of Behavioural Sciences

The School of Behavioural Sciences has engaged in the research and extension activities in collaboration with the following institution and agencies.

1. National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD).
2. National Institute for Visually Handicapped (NIVH).
3. National Institute for Hearing Handicapps- Mumbai
4. Nirmala Sadan College of Special Education, Muvattupuzha
5. Vigyan Valley Institute of Learning , Eranakulam
6. National Institute for Hearing Handicapped (NISH) Thiruvananthapuram.
7. Snehasadan College of Special Education, Angamaly
8. Janey College of Allied Health, Eroor, Kochi.
9. St. John the Baptist College of Special Education, Nedumkunnam.
10. St. John of God College of Special Education, Velloor, Pampady.
11. Nirmalasadan Training College for Special Education, Muvattupuzha
12. National Institute for Speech and Hearing, Thiruvanthapuram
13. Mental Health Centre,Trichur,Calicut and Thiruvananthapuram
14. Vigyan valley, Ernakulam
15. AYJNIHH, Mumbai
16. National Institute for Visually Handicapped, Calicut
17. National Institute For Empowerment Of Persons With Multiple Disabilities,Chennai

## School of Environmental Sciences

UGC-Obama Singh 21$^{st}$ century knowledge initiative programme: Faculty and student exchange was one among the major highlights of this Indo-US programme operated by the School and ACESSD (Inter-university Advanced Centre for Environmental Studies and Sustainable Development) in collaboration with three US universities; Brown University, Duke University and Plymouth State University.

The School of Environemntal Sciences (SES) has entered into collaborative research with CALTECH, USA. This collaboration is on sustainable sanitation titled "Development of Self contained, PV powered domestic toilet and waste water treatment system". Through this collaboration a team of researchers from CALTECH and SES have worked on the functioning of the toilet by monitoring the efficiency of the system. The major gains include knowledge gain with hands-on-experience and financial support to the scholar.

**School of Pure and Applied Physics**

**International collaboration**

- Dr. Indulekha K collaborates with International Science Development Team for Milky Way & nearby Galaxies which is nationally pooled funding by India TMT (Thirty Meter Telescope).

- Dr. Nandakumar Kalarikkal collaborates with UGC-DAE-CSR Kolkata (2014- 2017) on nanoparticle aggregation behavior in polymer nano-composites.

- Dr N V Unnikrishnan collaborates with Sultan Qaboos University for research programs in the field of Self assembly of nanostructures. He also collaborates with CSIR and Central Glass and Ceramic Research Institute.

- Collaboration with University of Leeds in the field of Sol Gel; materials and Characterization.

**Other Institutional Collaborations**

1. Bhabha Atomic Research Centre (BARC), Mumbai
2. Centre for Materials for Electronics Technology, Thrissur
3. Cochin University of Science & Technology Cochin
4. Inter University Centre for Astronomy & Astrophysics -Pune
5. Institute of Microbial Technology Chandigarh.
6. Raman Research Institute, Bangalore, India
7. Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India
8. UGC-DAE Consortium for Scientific Research-Kolkata Centre,
9. Inter University Accelerator Centre, New Delhi, India
10. Instituto de Optika, CSIC, Madrid, Spain.
11. City University of Hong Kong, Hong Kong.
12. Walter Sisulu University, South Africa
13. Jožef Stefan Institute, Ljubjana, Slovenia
14. Trent University, Canada

**School of Letters**

School of letters has conducted a number of programmes in collaboration with Sahithya Akademy, New Delhi, Kerala sahithya Akademy, National Translation Mission, Kerala Folklore academy, Kerala Chalachithra Academy etc.

**School of Management and Business Studies**

SMBS has collaboration with Management Development Institute, Gurgaon which has benefitted SMBS academically.

**School of Tourism Studies**

Collaborative research with Indian Institute of Tourism and Travel Management, Ministry of Tourism, ICSSR, District Tourism Promotion

Councils, nongovernmental organizations, rural self help groups etc. has enabled the school to bring excellence in academics by opening up new avenues for co-operation and diversification of activities. Interactions and linkages with faculty members of other institutions have helped the School to develop new innovations in curriculum development, research and consultancy.

**International and InterUniversity Centre for Nanoscience and Nanotechnology-IIUCNN**

This centre collaborates with the following national institutes / industries:

1.  Dept of Materials Enginnering, Indian Institue of Science (IISc), Banglore
2.  Rubber Research Institute of India, Kottayam, Kerala, India - 686 009
3.  NIIST, Trivandrum, Kerala, India - 695 012
4.  Central Power Research Institute, Bangalore, India - 56094
5.  Vikram Sarabhai Space Research Centre, Trivandrum, India
6.  Rubber Technology Centre, Indian Institute of Technology, Kharagpur, India
7.  COMPTECH, Indian Institute of Technology, Chennai
8.  Polymer Chemistry Division, National Chemical Laboratory, Pune, India
9.  Sree Chitra Thirunal Institute of Medical Sciences and Technology, Trivandrum, Kerala, India
10. Central Institute of Plastic Engineering and Technology, Guindy, Madras, India
11. Department. of Polymer Science & Rubber Technology, Cochin University of Science & Technology, Cochin - 22, Kerala, India
12. Indian institute of Chemical Technology, Hyderabad, India
13. Laboratory of Condensed Matter Physics, Department of Physics, University of Rajasthan, Jaipur, India
14. Reliance Industries Limited, Maker Chambers IV, 3rd Floor, 222, Nariman Point, Bombay
15. Elastomers Technical Services, Madurai, India
16. High Polymer Engineering Division, Department of Chemical Engineering, Indian Institute of Technology, Madras, India
17. Department of Chemistry, Karnatak University, Dharwar, Karnataka, India
18. Department of Civil Engineering, Indian Institute of Technology, New Delhi, India
19. Common Facility Service Centre, Industrial Estate, Changanacherry, Kottayam, Kerala, India
20. Department of Physics, University of Mysore, Mysore

Collaboration with international institutes / industries:

1. Macromolecular Science & Engineering Research Centre, Laval University, Quebec, Canada GIK7P4. (Prof. Prud 'homme)

2. Abt. Kunststoffee/Verbundwerkstoffe, TU Hamburg-Harburg, AB 5-09, Denickestraβe 15, D-21073 Hamburg, Germany (Prof. V. Alstädt)

3. Technische Universitat Chemnitz, Polymerchemiie, Straβe der Nationen 62, 0911 Chemnitz, Germany (Prof. Steffan Spange)

4. Directeur de ENSCCF, 24 avenue des Lais, BP - 187 - 63174 Aubiere, Cedex, France (Prof. Jacques Lacoste)

5. Laboratory of Macromolecular Structure Chemistry, Department of Chemistry, Katholieke University of Levuen, Belgium (Prof. Gabriel Groninckx)

6. Martin-Luther-Universitat Halle Witenberg, FB Physik, Fridemann-Bach Platz 6, 06108, Halle, Germany (Prof. Manfred Knorgen)

7. Assoc. Prof. of Polymer Physics, University of Chemical Technology Metallurgy, 8, Kilment Ohridski Blvd., 1756 Sofia, Bulgaria (Dr. Christo Betchev)

8. Institute of Material Science & Technology, Martin-Luther-Universitat, Halle-Wittenberg, Postanschrift D-06099 Halle, Haussanschrift Geusaer Straβe, Germany (Prof. (Dr.) Ing. Hans-Joachim Radusch)

9. Institute of Composite Materials Ltd., University of Kaiserslautern, Kaiserslautern, Germany (Prof.(Dr.) Jozef Karger Kocsis)

10. Institute of Polymer Research, Hohe Strasse 6, D- 01069 Dresden, Germany (Prof. Manfred, Stamm, Dr. Jurgen Pionteck, Dr. Petra Poetschke Dr. Cornelia Bellman)

11. CNRS Lab, Laboratoire de Recherche sur les, Polymers, UMR 7581-CNRS, 2-8 rue Henri Dunant, 94320 Thiais, Paris, France (Prof.(Dr.) Francoise Laupretre)

12. R&D, Du Pont, Wilmington, Delaware, USA (Dr. Joseph V. Kurian)

13. Institut des Matériaux de Rouen, faculté des sciences, BP12, 76801 Saint etienne du rouvray, responsable de LECAP, équipe de l'UMR6522 Polymères-Biopolymères-Membrane, France (Prof. Jean Marc Saiter)

14. Laboratoire L2PIC, University of South Brittany, Rue Saint Maude, Lorient Cedex,  France (Prof. Yves Grohens)

15. Polymers Nanotextures & Nanocomposites, Centre de Recherche sur la Matiere Divisee1B, rue de la Ferollerie, 45071 Orleans Cedex 2, France (Dr. Christophe Sinturel)

16. Beijing University of Chemical Technology International Exchanges and Cooperation Dept, Add. No.15 Beisanhuan East Road, Beijing 100029,P.R.China (Dr. Yang Weimin)

**Centre for High Perforance Computing-CHPC**

1. Research scholars of School Chemical Sciences and School of Pure andApplied Physics are availing the facilities of the Centre.

**Institute for Contemporary Chinese Studies - ICCS**

1. Jinan University, Guangzhou, China.
2. Institute for Chindian Studies, Jinan University, Guangdong Province, China.
3. Catholic University of Korea (CUK), Seoul.

**3.7.2 Mention specific examples of how these linkages promote**

a) **Curriculum development**

In School of Environmental Sciences, the UGC-Obama Singh 21st century knowledge initiative programme has helped to update the curriculum in consultation with the US scientists/ scholars.

b) **Internship**

- With help of Obama-Singh programme, School of Environmental Sciences has undertaken active student exchange/ internship programme with three Universities in US (Brown, Plymouth, Duke)

School of Tourism studies has linkage with 23 travel and tour companies and 6 major hotels and resorts for internship training (Travel Services Internship and Hospitality Services Internship) of students as part of the PG programme.

The final year students of School of Management and Business Studies are getting an opportunity to attend a one month summer internship at Management Development Institute, Gurgaon

c) **On-the-job training**

Some of the M.Tech studetns of School of Chemcial Sciences go to Industires to get on the job training

d) **Faculty exchange and development**

In School of Environmental Science the collaboration with Pohang University of Science and Technology, Korea, facilitated two Ph.D students to have research training for about 1 year during their course period.The collaboration with University of Paris (E) facilitated mutual visit of Senior Professors from both the sides and this resulted in joint publications as well

Linkages established with agencies have made it possible for students of School of Tourism studies to undergo compulsory internship in tour and travel companies as well as hospitality establishments as part of their programme.

e) **Research**

In School of Environmental Sciences, the Obama-Singh knowledge initiative programme has accelerated many research programmes in specialised areas as well as programmes of societal importance. Research areas initiated: Community rain water harvest systems; Fuel cell development; Ecology and water quality sensors

**f) Publication**

Has helped to increase the number of publications as well as impact factor of the publications. IIUCNN have many joint high impact publications with many labs abroad

**g) Consultancy:**

The university has generated a considerable amount of Rs. 66.19 lakhs as a result of its consutancy services in various fields of activity.

**h) Extension**

The School of Environmental Sciences has started an extension programme 'Rain water for Humanity'in collaboration with Brown University (USA) through which about 25 rainwater harvesting structures (Both individual as well as community level structures) have been successfully installed. The highlight of this programe is all these structures were constructed with the society's participation and the people of this region maintain these structures by themselves. As a result of its extensive extension activites, the school of could bag Obama-Singh 21$^{st}$ century Knowledge Initiative (UGC-OSI)'project and the school received substantial funding through this project. This has helped the school to research more on establishing cost effective rainwater harvesting structures and on sustainable sanitation suitable to this region

**i) Student Placement**

In the School of Tourism Studies almost all pass out students are placed in reputed travel, tour and hospitality establishments. The School has linkage with twenty travel and tour companies companies for placement**.**

**j) Any other (please specify)**

In School of Environmental Sciences, a team of researchers from CALTECH and SES have worked on the functioning of the toilet by monitoring the efficiency of the system. The major gains include knowledge gain with hands-on-experience and financial support to the scholar.

**3.7.3 Has the university signed any MoUs with institutions of national/international importance/other universities/ industries/ corporatehouses etc.? If yes, how have they enhanced the research and developmentactivities of the university?**

**Yes. The School of Environmental Sciences** has various MoUs with institutions like: CALTECH, USA, BARC Mumbai, Duke University, USA, Plymouth State University, USA, Brown Univesity, USA, Pohang Univesity of Science and Technology, Korea, University of West of England, UK, National Centre for Antarctic and Ocean Research (NCAOR), Goa (Linkage)

National Remote Sensing Agency, Hyderabad. Under all these programme research in frontier areas of Environemntal Science is being carried out. In addition there is ongoing programme on student exchange with some of these institutions. There are also joint publications with some of these institutions. Under the collaboration with NCAOR, Goa we are now part of the Arctic

expedition programme of India. Researchers from the School have been visiting Arctic under this expedition programme since 2013.

**School of Pure and Applied Physics has signed the following MoUs:**

1. National pooled funds utilized for the promotion of teaching & research in Astronomy & Astrophysics under a MoU with the Inter University Centre for Astronomy & Astrophysics (IUCAA, Pune)- DrIndulekha K

2. National pooled funds utilized for science development for the Square Kilometer Array under a MoU with the Square Kilometer Array India Consortium – Dr.Indulekha K

**School of International Relations and Politics:** The School has signed MoUs with the Jinan University, China, Institute of Political Studies, Renn, Institute of Political Studies, Bordeau, France and the University of Jammu.

**School of Management and Business Studies**

Mahatma Gandhi University has signed an MOU with Management Development Institute, Gurgaon which is benefitting the final year students of School of Management and Business Studies. Students are getting an opportunity to attend a one month summer internship at MDI. These students are selected through a rigorous process by the University management department on the basis of merit and other criteria set by the university department. MDI offers a limited number of courses of study that can be taken up by the students for the purpose of supplementing the course curriculum offered by their home institution. These courses act as a substitution to some of the elective courses that students may have otherwise pursued at the home institution. These will be recognized through grade transfers from MDI and accepted by the home institution/ partner institution, ensuring work-load balance for the student.

**School of Behaviuoral Sciences has MoUs with the following institutions**

1. Snehasadan College of Special Education, Angamaly
2. Janey College of Allied Health, Eroor, Kochi.
3. St. John the Baptist College of Special Education, Nedumkunnam.
4. St. John of God College of Special Education, Velloor, Pampady.
5. Nirmalasadan Training College for Special Education, Muvattupuzha

**School of Computer Sciences**

The University has entered into partnership with the  Spoken Tutorial Project Team of IIT Bombay.

 Dr. Bindu V R, Head of Department, School of Computer Sciencces is the chief co-ordinator of the University. An MoU was signed on 27.08.2014.

The Spoken Tutorial Project is an initiative of the National Mission on Education through ICT, Ministry of Human Resource Development, Government of India. The objective is to conduct Software Training Workshops on FOSS (Free & Open Source Software), absolutely Free of Cost, with the aid of Spoken Tutorials**.**

**International and InterUniversity Centre for Nanoscience and Nanotechnology has the following MoUs:**

### MoU Signed with National Institutes

1. MRF Ltd,Chennai
2. Pushpagiri Reserach Centre,Kerala,India
3. Department of Mechanical Engineering,Rajiv Gandhi Institute of Technology, Kottayam
4. VIT University Velloor, Tamilnadu
5. Aalathoor Pharmaceutical Manufactors Association,Kerala,India
6. GE India Technology Centre Pvt.Ltd,Banglore

### MoU Signed with International Institutes

1. King Mongkuts University of Technology North bangok Thailand
2. The Ecole Nationale Superieure des Minesd'Albi-Carmaux,France
3. Bursa Technical University, Turkey
4. University of Technology Faculty of Production Engineering Instistute of Mechanics and Printing Department of Printing Technology,Croatia
5. Dekin University,Australia
6. University of Le Mans France
7. University of Kazakhstan, Kazakhstan
8. University of Rouen,France
9. Universiti Tecknologi ,MARA,Malesia
10. Walter Sisulu University,South Africa
11. Kansas State University USA
12. Laboratoire Des Sciences Anlytiqes CNRS UMR5280,France
13. University of Lorraine,Nancy France
14. Deakin UniversityWater front campus,Geelong,Australia
15. Changwon National University,Korea
16. Almaty Institute of Power Engineering and Telecommunication, Kazakhstan
17. Siberian Federal University Russian Federation,Russia
18. University of Petoria,South Africa

These MoUs have helped the centre to have many joint high impact publications, patetns and student excchange programme.

### 3.7.4 Have the university-industry interactions resulted in the establishment /creation of highly specialized laboratories / facilities?

Interactions with industry has resulted in improving the research facilities available in the University department which are involved in University-Industry collaborative research.Atomic Force Microscopy was setup in School of Chemical Science in collaboration with Apollo Tyres,India. The Ingenuity Lab of Universithy of Alberta has signed an MoU with Mahatma Gandhi University to set up Ingenuity lab in the MGU campus.

**Any other information regarding Research, Consultancy and Extension, which the University would like to include.**

At present Mahatma Gandhi University offers research programmes in over forty disciplines through its own Schools as well as through its approved research centres.

- The University has close collaboration for academic, research and extension programmes with a number of national agencies and institutions including the UGC, DST, DRS, ISRO, COSIST, CSIR, DAAD, STEC, ICMR, BRNS, MoES, ICCR, ICHR, IED, IIFT, Institute of Chinese Studies and the Sahitya Akademi.

- The University is also involved in active collaboration with research institutions of international reputation such as the Max Planck Institute, Germany, Institute of Polymer research, Dresden, Germany, Universithy of Paris 12, France, University of Strasbourg, France, Deakin University, Australia, Brown University, USA, University of Nantes, France, California Institute of Technology, USA, University of Toronto, Canada, Catholic University, Belgium, Heidelberg University, Germany, and the Institute of Political Studies, Rennes, France, POSTECH, South Korea.

- The web-enabled University Library with its large collection of books, journals and e-journals, the online theses digital library that provides open access to its enviable collection of digitized Ph D dissertations, the publishing unit which has brought out hundreds of titles in Malayalam, English and Hindi, the facilities available at the School of Physical Education and Sports Sciences for developing physical culture, the ecologically sensitive extension programmes initiated by the University Departments and the National Service Scheme, the Students' Web Centre that provides round-the-clock web-support to the campus community.

- The Department of Science and Technology identified 30 Universities with H-index ranging from 42-26 for R&D support during 2010- 2011. Mahatma Gandhi University, Kottayam with an H-index of 35 was ranked 8 among the 30 Universities.

- Further a second study was conducted by DST during the second phase of the PURSE programme based on research output of the University. Based on the h-index value of the publication the second phase of

PURSE has been sanctioned to 14 Universities in India of which Mahatma Gandhi University was also a receipient.

- Prof. Dr. Sabu Thomas, Professor, School of Chemical Sciences and Hon.Director International and Inter University Centre for Nanoscience and Nanotechnology has the highest h-index (78), highest number of Citations (26,655) and highest number of publication (820) as per Google scholar in the state of Kerala.

- Mahatma Gandhi University Kottayam was one among the four institutions and the only state university in India for having been awarded the "Obama-Singh 21st Century Knowledge Initiative" by UGC for the perid 2012-15.

- The research output of Mahatma Gandhi University was again recognised by DST and was sanctioned funds for establishing the SOPHISTICATED ANALYTICAL INSTRUMENTATION FACILITY (SAIF) 2015-2018.

- Mahatma Gandhi University was the only Universityin Kerala to be awarded the the DBT BUILDER Programme for the period 2012-17.

- Mahatma Gandhi University was part of India's expedition in Polar regions.

  School of Environmental Sciences has started participating in Indian Arctic Expedition program of ESSO-National Centre for Antarctic and Ocean Research, Ministry of Earth Sciences since 2013 through a project titled "Mercury Geochemistry in the Sediments of Kongsfjorden, Ny-Alesund, Arctic" (PI: Dr. Mahesh Mohan). The project was completed with two expeditions (2013-14 and 2014-15).

- School of Environmental Sciences has actively participated in the Polar (Arctic and Antarctic) environmental research expert committees. Dr. CT Aravindakumar was an expert member of Arctic selection committee – 2015 and Antarctic Selection Committee – 2016. He was also selected as Group leader in Environmental Science, Polar science policy deduction for Ministry of Earth Science, 2016.

- The linkage between School of Environmental Sciences and ESSO-NCAOR has helped Mahatma Gandhi University to excel in the Polar Research. Both faculty and students (6 nos.) has got opportunity to participate in Arctic Expeditions.Three scholars were doing their research on Arctic Environment.

- Some of the faculty members serve as experts in the working group of the Kerala state planning board, Government of Kerala. Prof. K.M Seethi, SIRP, Prof.Sabu Thomas and Prof.C T Aravindkumar, SES are currently serving the planning board.

# CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

# CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

## 4.1 Physical Facilities

### 4.1.1 How does the University plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

The University has a Planning Board headed by the Vice-Chancellor and consists of nominees of the Chancellor, UGC and State Planning Board followed by Registrar, Finance Officer and members nominated by various teaching departments. University gets financial assistance from the UGC and state government. The Planning Board examines concrete proposals from various departments based on their actual requirements and takes appropriate decisions. The Syndicate of the University has constituted a Works Monitoring Committee which consists of Syndicate members amply supported by the University Engineer and an external technical expert who monitors and supervises all the ongoing construction projects of the University.

The Planning and Development wing of the University deals with the submission of proposals related to infrastructure, asset management, and space management.It includes mobilization and administration of plan funds from the State, UGC, sponsoring bodies like Department of Science and Technology, Department of Bio-technology, Indian Council of Medical Research, Indian Council of Social Science Research, Council of Scientific and Industrial Research, Kerala State Council for Science, Technology and Environment (KSCSTE) etc.

University ensures optimal utilization of the common facilities by making it available to all Schools/Centres. A common Assembly Hall provides facilities for the conduct of conferences, seminars, symposia, workshops etc. The University Library is a central point of dissemination of knowledge and is utilized by the University community and the general public. This is in addition to the department level facilities like conference/ seminar halls, smart class rooms, department libraries, laboratories etc available in the various Schools. The decentralised administrative structure enables Schools/Centres concerned to address the issue of laboratory space, class-room facilities etc. The Faculty Council of the Schools/Centres effectively deals with space management issues in their respective Schools/Centres.

### 4.1.2 Does the University have a policy for the creation and enhancement of infrastructure in order to promote a good teaching learning environment? If yes, mention a few recent initiatives.

Yes. The University has a policy for the creation and enhancement of infrastructure in order to promote a good teaching/learning environment. The policy for infrastructure development is based on inputs received from Schools and Centres along with general requirements. The University utilizes plan

funds (non-recurring) for creation of assets and non-plan funds (recurring) for its maintenance. The E-payment and e-tender facilities are major initiatives in reducing the time delay in a transparent manner in inviting and processing tenders for various works related to the University as well as speedy delivery of financial transactions including salary disbursement.

Most of the plan and non-plan funds are obtained from the State Government and also through own sources. The built infrastructure of the University is as follows:

## BUILT UP AREA AS ON 31$^{st}$ MAY, 2010

| SI.No | Campus | Total Built up Area (till may 2016)(m$^2$) |
|---|---|---|
| 1 | Priyadarsini Hills  Main Campus | 82080 m$^2$ |
| 2 | School of Social Sciences, Pullarikkunnu | 5372 m$^2$ |
| 3 | School of Indian Legal Thought,  Suryakaladi Hills | 3560 m$^2$ |
| 4 | University College of Engineering, Thodupuzha | 4200 m$^2$ |
| 5 | School of Medical Education (SME),Puthuppally | 5717 m$^2$ |
| 6 | SME, Cheruvandoor | 1331 m$^2$ |
| 7 | SME, Pathanamthitta | 2300 m$^2$ |
| 8 | SME,Manimalakunnu | 3800 m$^2$ |
| 9 | SME,Pala | 3600 m$^2$ |
| 10 | SME,Gandhinagar | 8365 m$^2$ |
| 11 | STAS Pullarikkunnu | 3100 m$^2$ |
| 11 | STAS, Edapally | 2038 m$^2$ |
| 12 | STAS, Pathanamthitta | 2600 m$^2$ |
|  | **TOTAL** | **1,28,063 m$^2$** |

## NEWLY BUILT UP AREA FROM JUNE2010 - MAY 2016

| SI.No | Campus | New Construction Project After June 2010 | Total Built up Area(till may 2016)(m$^2$) |
|---|---|---|---|
| 1 | Main Campus | Library Extension | 500.4 m$^2$ |
| 2 | Main Campus | Hostel for OBC Women | 1048 m$^2$ |
| 3 | Main Campus | School of Behavioural Sciences | 2217 m$^2$ |
| 4 | Main Campus | New Men's hostel | 1261 m$^2$ |
| 5 | Main Campus | I.I.R.B.S | 3717 m$^2$ |
| 6 | Main Campus | SMBS 1$^{st}$ and 2$^{nd}$ floors | 5449 m$^2$ |
| 7 | Main Campus | Animal House, SOBS | 217 m$^2$ |
| 8 | Main Campus | Creche | 187 m$^2$ |
| 9 | Main Campus | School of Pedagogical Sciences- First Floor | 2060 m$^2$ |
| 10 | Main Campus | Sports Hostel | 1800 m$^2$ |
| 11 | Main Campus | Quarters for VC and PVC | 480 m$^2$ |
| 12 | Main Campus | Computer Sciences-Extension | 554 m$^2$ |
| 13 | Main Campus | Living Quarters for Staff (64 nos) | 6031.6 m$^2$ |
| 14 | Main Campus | Seminar Hall (SPAP) | 322 m$^2$ |
| 15 | Main Campus | Construction of Synthetic Acrylic Court | |
| 16 | SME, Puthuppally | SME, Puthuppally | 3346 m$^2$ |
| 17 | SME, Nedumkandom | SME, Nedumkandom | 2602 m$^2$ |
| 18 | UCTE, Thottakkad | UCTE, Thottakkad | 581 m$^2$ |
| 19 | UCTE, Kudamaloor | UCTE, Kudamaloor | 636 m$^2$ |
| 20 | UCTE, Thodupuzha | UCTE, Thodupuzha | 672 m$^2$ |
| 21 | STAS, Pullarikkunnu | STAS, Pullarikkunnu | 3100 m$^2$ |
| | | **TOTAL** | **36781 m$^2$** |

## ONGOING CONSTRUCTION -BUILT UP AREA

| SI.No | Campus | Ongoing Construction Project | Total Built up area (m$^2$) |
|---|---|---|---|
| 1 | Main Campus | Convergence Academia Complex | 9945 m$^2$ |
| 2 | Main Campus | Pareeksha Bhavan Annexe | 900 m$^2$ |
| 3 | Main Campus | New Ladies Hostel | 1261 m$^2$ |
| 4 | SME, Manimalakunnu | SME, Manimalakunnu | 2814.5 m$^2$ |
| 5 | Main Campus | Seminar Hall, Library and Reading Room(School of International Relations & Politics) | 535 m$^2$ |
| 6 | Main Campus | (SOCS)Horizontal Extension | 516 m$^2$ |
| 7 | Main Campus | Two additional floors over SJPB | 900 m$^2$ |
| 8 | Main Campus | Research Studio for IUCSSM | 650.56M$^2$ |
| 9 | Main Campus | School of Tourism Studies | |
| | | **TOTAL** | **17522.06 m$^2$** |

The University received a fund of Rs. 20 Crores from Rashtriya Uchathar Shiksha Abhiyan (RUSA) infrastructure fund in 2016 for the development of infrastructure, renovation and purchase of equipment, computers and books etc.

**RUSA Infrastructure Fund**

| Sl.No. | Item | Amount (Rs in Lakhs) |
|---|---|---|
| | **Proposal -I  Infrastructure Development** | |
| 1. | Student amenity and Incubation Centre for student entrepreneurship, support and career development<br>a. Construction of the Centre<br>b. Procurement of equipment<br>c. Establishment of e-library<br>d. Facility for video conferencing with worldwide entrepreneurs<br>e. Online Career development training | 350 |
| 2. | Wi-Fi  enabled e-campus to enable online access to all statutory departments, inter university and inter school centres and affiliated colleges to facilitate online academic programmes<br>a. Procurement of 10 TB server and other computer hardware and software.<br>b. Establishment of Wi-Fi facility in the campus<br>c. Establishment of e learning and support centre<br>d. Establishment of a digital content management system | 250 |
| 3. | Campus beautification including ramp construction for the disabled<br>a. Construction of ramps  and disabled friendly toilets in all multi-storeyed buildings of the University<br>b. Development of an eco-friendly landscape<br>c. Development of a sacred grove including construction of a pond etc.<br>d. Renovation of all basic amenities in the campus | 100 |
| | **Proposal -II Renovation** | |
| 4. | Repair and maintenance of  various buildings of the University | 200 |
| 5. | Installation of Solar Power Plant System | 350 |
| 6. | Establishment of digitising facility in the University library<br>a. Construction of Library annexe for digitising facility | 150 |

| | | |
|---|---|---|
| | b. Procurement of hardware and software for the digitisation | |
| | c. Procurement of other furniture | |
| **Proposal -III Equipment, Computers and Books** | | |
| 7. | Purchasing of lab equipment for the four Science Departments | **260** |
| 8. | Setting up of Digital Content Creation Lab | **85** |
| 9. | Setting up of Music Research Centre at Inter University Centre For Studies in Science of Music(IUCSSM) | **115** |
| 10. | Purchasing of books for the statutory departments of the University | **16** |
| 11. | Purchase of computers for the ongoing e-governance programme and the CETEX | **124** |
| **Total** | | **2000** |

**Expenditure for Infrastructure Development (Plan Expenditure)**

| Year | Amount (Rs in lakhs ) |
|---|---|
| 2011-2012 | 2384.68 |
| 2012-2013 | 2299.72 |
| 2013-2014 | 1500.43 |
| 2014-2015 | 2994.40 |
| 2015-2016 | 2182.96 |

Based on national rankings (*h*-index 66, as obtained from WEB of Sciences, the highest index achieved by any University in Kerala), the University was able to receive 9 crore rupees under the PURSE programme of DST in 2016 demonstrating the higher academic standing of the University in the nation.

The University has provided video conferencing/smart classrooms in various Schools with the purpose of promoting interactive learning among the students. The University has equipped the smart classrooms with state of the art infrastructure like smart boards, LCD projectors, multimedia devices etc.

In pursuance of the University's quest to groom entrepreneurial skills among staff and students through student start-ups, the Government of Kerala has sanctioned Rs.1 crore to create a Business Innovation and Incubation Centre (BIIC), which is the first of its kind in the state. The main aim of BIIC is to kindle the entrepreneurial spirit of youth and provide customized support to early stage business ideas with high growth potential. BIIC is aimed to become a hub for innovation activities with the development of ideas into innovative applications through patenting process that can benefit the society. Funds so procured are meant to enhance teaching/learning environment.

The University has also started construction of a 9–floor Convergence Academia Complex, where the emerging interdisciplinary centres of the University will be housed with state of the art laboratory and infrastructure facilities. An amount of Rs. 28 crores is allotted for its construction and almost half of the allotted amount is utilized and is nearing completion.

University also received a central funding of Rs. 10 crores for the setting up of an Inter University -Instrumentation Centre (IUIC) which houses sophisticated instrumentation facilities for characterizing materials. This facility is being effectively utilized by academic institutes and industries.

### 4.1.3 How does the University create conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?

Continued funding through plan and non-plan grants to the various Schools/Centers is done for augmenting research facilities. Over the years, the University has established common computing facilities, high performance computing, establishment of work stations and DST funded Sophisticated Advanced Instrumentation Facility (SAIF), state-of-the-art-facility for microscopy (optical, SEM, TEM, and AFM), X-Ray and spectroscopy (NMR)techniques. For the improvement of laboratory infrastructure with high-end equipment, the university has received a grant of Rs. 9 crores from DST PURSE, Rs.2 crores from DST-SAIF and Rs.1 crore from State Government for incubation/innovation facilities. In addition to the above, research laboratories are established and further strengthened by utilizing the funds received through a number of externally funded projects (which has been detailed in Criterion III). All Schools in the science stream are equipped with state-of-the-art instruments in their research laboratories as shown below.

## List of major scientific instruments (above 5 Lakhs) Procured during 2010-16

| Schools/Departments/Centers | Sl.no. | Name of Instrument | Cost in lakhs |
|---|---|---|---|
| **School of Biosciences** | 1. | State-of-the-art Labs for Teaching including Minor equipment's for Post graduate laboratories | 16.00 |
| | 2. | Installation of Online UPS and Stabilizers in animal cell culture and Instrumentation room | 8.00 |
| | 3. | Inverted Microscope with Phase contrast and Fluorescence attachments | 14.00 |
| | 4. | Langendroff perfusion system with accessories | 15.00 |
| | 5. | HPTLC (DST-PURSE) | 31.00 |
| | 6. | HPLC Preparative | 22.00 |
| | 7. | UV-VIS Spectrophotometer Model UV-2600 ISR -2600 plus | 15.00 |
| | 8. | FT-IR with ATR | 15.00 |
| | 9. | -80$^o$ C Freezer | 6.00 |
| | 10. | Elisa Reader with washer | 13.00 |
| | 11. | Tali Image based Cytometer | 6.50 |
| | 12. | Dynamic Contact angle meter | 11.50 |
| | 13. | PCR (RT) | 12.00 |
| | 14. | HPLC with MS Detector | 40.00 |
| **International & Interuniversity Centre for Nano science & Nano Technology** | 1. | High Resolution Transmission Electron Microscope (HR-TEM) | 500.00 |
| | 2. | Atomic Force Microscope | 50.00 |
| | 3. | Autoclave | 5.00 |
| | 4. | Brabender | 60.00 |
| | 5. | Compression Moulder | 10.00 |
| | 6. | Dielectric Measurement System | 30.00 |
| | 7. | Differential Scanning Calorimeter | 30.00 |
| | 8. | Dynamic Contact Angle Meter | 20.00 |
| | 9. | Electrospinning Unit | 10.00 |
| | 10. | Lyophilizer | 5.00 |
| | 11. | ME Coupling Set up | 5.00 |

| | | | |
|---|---|---|---|
| | 12. | Nd:YAG Laser | 20.00 |
| | 13. | Pulsed Laser Deposition | 15.00 |
| | 14. | Z-Scan | 5.00 |
| | 15. | Ultrasonicators | 5.00 |
| | 16. | UV-Visible-NIR Spectroscope | 50.00 |
| | 17. | Vector Network Analyzer | 20.00 |
| | 18. | DLS | 30.00 |
| | 19. | Autoclave | 5.00 |
| **Institute of Intensive Research in Basic Sciences** | 1. | 400MHz BRUKER NMR | 155.00 |
| | 2. | Nitrogen Gas Generator | 10.00 |
| | 3. | Semi preparative HPLC with ELS Detector | 30.00 |
| | 4. | Atomic Absorption Spectrophotometer | 10.00 |
| | 5. | FT - IR | 15.00 |
| | 6. | Microwave Digester | 5.00 |
| | 7. | UV-Visible Spectrophotometer | 8.00 |
| | 8. | High Speed Refrigerated Centrifuge | 5.00 |
| | 9. | Lyophilizer | 5.00 |
| **School of Chemical Sciences** | 1. | BET Surface Area Analyzer | 31.00 |
| | 2. | Differential Scanning Calorimetry | 45.00 |
| | 3. | TG-GCMS | 65.00 |
| | 4. | UV-vis. Spectrophotometer | 15.00 |
| | 5. | Optical Microscope | 15.00 |
| | 6. | Raman Spectrophotometer | 41.00 |
| | 7. | Electrochemical Work Station | 8 .00 |
| | 8. | FT-IR | 23.00 |
| | 9. | Rheometer | 30.00 |
| | 10. | SEM/ EDAX | 40.00 |
| | 11. | UTM | 10.00 |
| | 12. | TORQUE RHEOMETER | 53.00 |
| | 13. | Permeability meter | 5.00 |
| | 14. | Microwave Reactor | 11.00 |
| | 15. | TMA | 18.00 |

| | 16. | ELSD | 5.98 |
|---|---|---|---|
| | 17. | Evaporative Light Scattering detector | 7.00 |
| | 18. | Powder XRD | 55.00 |
| | 19. | Atomic force Microscope | 50.00 |
| | 20. | Gas permeability tester | 15.00 |
| | 21. | Porosity Meter | 30.00 |
| | 22. | CHN Analyzer | 20.00 |
| | 23. | Electrospinning Unit | 10.00 |
| | 24. | Microwave irradiator | 10.00 |
| | 25. | Thermo Mechanical Analyzer | 15.00 |
| | 26. | Photochemical Reactor | 10.00 |

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|---|---|---|---|
| **School of Environmental Sciences** | 1. | Remote sensing and GIS facility with all latest computing facility and software | 25.00 |
| | 2. | LCMS (DST-PURSE) | 163.00 |
| | 3. | LC QTOF (DST-PURSE) | |
| | 4. | GC MS – TCD | 38.00 |
| | 5. | Gas Chromatograph | 15.00 |
| | 6. | ICP-MS | 80.00 |
| | 7. | Total and methyl mercury analyzer – CVAFS | 20.00 |
| | 8. | Microwave digester | 8.00 |
| | 9. | Trace metal analyzer | 5.00 |
| | 10. | Ion chromatograph | 12.00 |
| | 11. | Ultra-pure water system | 5.5 |
| | 12. | Direct Mercury Analyzer | 16.00 |
| | 13. | Class 100 clean room facility | 10.00 |
| | 14. | Microwave Digester (Anton Par) | 9.4 |
| | 15. | Freeze dryer | 6.39 |
| | 16. | GC-ECD-FID-TCD | 25.00 |
| | 17. | Accelerated Solvent Extractor | 15.72 |
| | 18. | Petrological Microscope | 5.00 |
| | 19. | Spectro radiometer | 5.00 |

| | | | |
|---|---|---|---|
| | 20 | Confocal Micro Raman – AFM (DST SAIF) | 145.0 |
| | 21 | Fluorescence Spectrometer with Life Detector (DST SAIF) | 54.00 |
| **School of Pure and Applied Physics** | 1. | Powder X-ray Diffractometer | 48.00 |
| | 2. | LCR meter | 15.00 |
| | 3. | Micro hardness Tester | 6.00 |
| | 4. | Spectrophotometer | 10.00 |
| | 5. | Spectrofluorophotometer | |
| | 6. | Advanced fluorescence Microscope | 10.00 |
| | 7. | Spin Coater | 5 .00 |
| | 8. | Single Crystal X-RAY Diffractometer (DST-PURSE) | 150.00 |
| | 9. | Spectroscopic Ellipsometer (DST-PURSE) | 42.00 |
| | 10. | Time resolved FluoromaxFluorimeter | 32.00 |
| | 11. | Differential Scanning Calorimeter | 33.00 |
| | 12. | UV VIS N1R Spectrophotometer | 21.00 |
| | 13. | UV vis spectrophotometer | 5.00 |
| | 14. | High Tem Programmable furnace | 5.00 |
| | 15. | TGA DTA (ThermogravimetrcAnalyzer) | 20.00 |
| | 16. | AC DC conductivity measurement set up | 15 .00 |
| | 17. | Computer server and Networking | 15.00 |
| | 18. | High Computing Facility | 5.00 |
| **Inter University Instrumentation Center** | 1. | HPLC | 15.35 |
| | 2. | FTIR | 12.15 |
| | 3. | Trinocular Microscope | 12.80 |
| | 4. | Layer by Layer Dipping Device | 13.15 |
| | 5. | TGA/DTA/DSC | 36.17 |
| | 6. | iCAP QC Quadruple ICP-Mass Spectrometer (DST-PURSE) | 67.74 |
| | 7. | UV- VIS Spectrometer | 13.96 |
| **Total value of major scientific instruments (above 5 Lakhs) procured during 2010-16** | | | **Rs. 3232.31 lakhs** |

**Computing, Library and Allied Facilities:**

All Schools have independent library and other facilities. Most of the Schools have well maintained computer labs. Some schools have fully furnished language labs. In short, the university has ensured the following facilities to enhance the physical ambience which include:

- Well-furnished faculty room for each staff member with personal computers having internet connectivity

- Wi-Fi connectivity in all the Schools

- Research laboratories in each science department

- Computer lab facilities in all Schools

- Subject specific libraries in Schools

- Quarters for teaching staff in the campus itself

- Gymnasium, indoor and outdoor stadiums in the campus

- University bus services

- Post office

- Bank and ATMs in the campus

- Co-operative stores

- Cafeteria and snack counters

- University Health Centre

- Crèche

- Internet cafe and DTP workstations

**4.1.4 Has the University provided all departments with facilities like office room, common room and separate rest rooms for women students 'and staff?**

Yes. All Schools/Centres of the university have separate office room, common room and separate rest rooms for women staff and students. Women friendly toilets with additional facilities like sanitary napkin disposer are provided to promote hygiene and sanitation.

**4.1.5 How does the University ensure that the infrastructure facilities are disabled-friendly?**

The university has conducted a comprehensive access audit to evaluate the state of accessibility in the campus. All the Schools and offices in the University are connected with well-maintained roads. Ramps are provided to help the differently-abled and the wheel chair bound people to access various facilities. The university has availed Rs. 1 crore under the RUSA scheme for

the construction of ramps and disabled-friendly toilets in all buildings of the University. The classes for differently-abled students are arranged in the ground floor to the maximum extent possible. The university has decided to provide wheel chairs in all the buildings. University has also initiated steps to procure an eco-friendly battery operated vehicle with wheel chair access along with preferential parking facilities to ensure barrier free transportation in the campus. Electronic Lab for Visually Challenged has been set up in the library during October 2015 with an objective to provide reading facilities to blind and low vision library users.

As per U.O No. 4308/P&D -1/3/2016/Admn dated 01/08/2016, the University has issued an order formulating a comprehensive policy for addressing disability issues. The main components of the order are as follows:

- To engage the service of a barrier free design expert and architect to audit the disabled-friendliness of all physical segments of the University.

- To ensure disabled-friendly features like ramp (of a gradient not greater than 18-20 degrees), lifts (wide enough for wheel chair, and with Braille control switch panel and audition), special assistive fixtures and fittings (like handrails and grab bars alongside the side walk of steps and staircases), and disabled - friendly washrooms in all future construction projects.

- To allow a grace period of three months for M.Phil and six months for Ph.D. students who are physically challenged in the submission of dissertations.

- To ensure at least one terminal in the computer workstation (of all departments, centres) with special assistive technologies, preferably open source, for physically challenged students.

- To ensure the websites of Mahatma Gandhi University and its statutory teaching departments and the affiliating colleges to incorporate features friendly to the visually challenged (including colour contrast, variable font size and audition).

- To create a special fund to handle all income and expenditure relating to addressing disability issues of Mahatma Gandhi University including constituent colleges. Besides central and state funding and UGC special assistance, funds are also received from MP/MLA development plan assistance for constituencies, and rules permitting, from the private sector companies (who may fulfil it as part of Corporate Social Responsibility).

- To highlight the aspect of disabled - friendliness in all notifications for admission and appointment released by the University statement "MGU is proactive to the needs of the physically challenged" is inserted.

**4.1.6 How does the University cater to the requirements of residential students? Give details of:**

∗ **Capacity of the hostels and occupancy (to be given separately for men and women)**

| Name of Hostel | Capacity | Established During the Assessment Period |
|---|---|---|
| Pallana Men's Hostel | 117 ⎱ 198 | - |
| Pallana Annex Men's Hostel | 81 ⎰ | 2014-15 |
| Syrandhri Women's Hostel | 84 ⎱ | - |
| Nila Women's Hostel | 71 ⎰ 226 | 2012-13 |
| Kabani Women's Hostel | 71 | 2013-14 |

All the University hostels are fully occupied.

∗ **Recreational facilities in hostel/s like gymnasium, yoga centre, etc.**

Yes. Gymnasium and facilities for yoga are provided separately for Men and Women on the campus itself. The working hours of the centres are 7 am to 9 am and 4 pm to 7 pm on all days. Since the hostels are nearby, students can make use of these with ease. The campus has a good playground for outdoor games apart from the facilities for indoor games like chess and carom board.

∗ **Broadband connectivity / Wi-Fi facility in hostels.**

Free Wi-Fi is available in the Campus and Hostels. The University has finished installing high speed wireless networking in the campus. These facilities are meant for the upcoming e-governance programme being planned in the University.

**4.1.7 Does the University offer medical facilities for its students and teaching and non-teaching staff living on campus?**

Yes. There is a full-fledged health centre functioning in the university. Two doctors are working on shift basis. Necessary medicines, health laboratory services etc. are also provided free of cost. The University Health Centre imparts health care services through outpatient consultation, laboratory diagnosis and dispensing of prescribed medicines to students and employees. In addition to this, in the year 2013, Mahatma Gandhi University issued health cards after proper medical check-up to its employees. The budget allocation for the purchase of medicines is being enhanced steadily every financial year as part of the social commitment of University in the health care of its employees.

School of Behavioural Sciences has a counselling centre where the services of a qualified clinical psychologist is available from 9.00am to 5.00pm.

### 4.1.8 What special facilities are available on campus to promote students 'interest in sports and cultural events/activities?

The Department of Physical Education has been providing various facilities to the students of the University with the intent of promoting interest among students in sports and games. For instance:

i) The campus has a full-fledged basketball court, volley ball court, synthetic tennis court and a badminton court along with a big football ground, which are open to all students of the campus.

ii) UGC has sanctioned a 50 m Olympic standard swimming pool at a budget outlay of Rs.2.25crore.

iii) The physical education department also has a fitness centre to cater to the needs of the students of the campus.

iv) The construction of a 100-bedded modern sports hostel was completed recently.

Apart from this, University also encourages the students with sports interest by providing incentives in terms of providing grace marks and scholarships.

The University has instituted Sports Scholarship for 150 meritorious Sportspersons annually to recognise the achievement of the Sportsmen/women of the university. This acted as a motivating factor and the university has been able to produce ten Olympians, fifteen Asian games athletes' and more than two hundred internationals, some of them Arjuna awardees, since its inception. The university has also instituted Sports Merit cash Award to the winners of All India Inter University Championships annually. The Sports Merit Cash Award was instituted by the School to encourage the University teams to perform well at Inter University Competitions. An amount of Rs 10,000/-, Rs 7,500/- and Rs 5,000/- respectively is given to athletes for winning gold, silver and bronze medals.

Recently university gave a reception to two of its students who participated in 2016 Olympics. Also, university celebrated its foundation day by organising a mass race with the participation of the university community.

University department students union conducts arts and cultural festival every year by conducting programs and competitions for the students of the campus as a means of promoting and rewarding the cultural talents of the student community. This is besides the Onam, Christmas and New Year celebrations being organised by the individual schools and centres which is aimed at encouraging the cultural talents of the student community.

## 4.2 Library as a Learning Resource

Mahatma Gandhi University Library and Information System consists of University Library, libraries of the Schools and 4 study centre Libraries. The University Library was established in 1989. The University Library which is situated in the main campus occupies purpose-built accommodation, and provides a variety of facilities and has a user-friendly environment. These include individual work spaces, room for group study and teaching, audio-visual access and online information retrieval system. The building of the University Library is 2000 sq.m in area consisting of the cellar, the ground floor and the first floor.

Academic as well as public users are given the facility to use the library. Special category membership is provided to journalists. The library is providing service from 8 am to 8 pm in three shift timings for its staff. Reading space is provided in all the three floors housing the various sections of the library. The library provides reading facility to the visually impaired users too. For this, an electronic lab custom made for visually challenged users has been set up during 2016.

The library has a collection of 59,000 books, 232 journals, 2,135 Ph.D. theses and has access to 15000+ e-journals under E-Shodh Sindhu. The activities of the Library are comprehensively automated using open source library management software KOHA.

The library is a member of the INFLIBNET Centre, Ahmedabad as well as DELNET (Developing Library Network). As a member of these networks, the library provides access to the resources of other major libraries in the country. In addition to the access to UGC INFONET consortium, it has access to major online databases, such as EBSCO, ProQuest dissertations and theses, Oxford Scholarship Online, IEEE All Society Periodicals Package etc. Mahatma Gandhi University had won the State IT Award during the year 2009 in the e-learning category for its university online theses digital library. The various department libraries have a good collection of subject specific books and journals.

### 4.2.1 Does the library have an Advisory Committee? Specify the composition of the Committee. What significant initiatives have been taken by the committee to render the library student/user friendly?

University Library has a Library Advisory Committee. It is an 18 member committee with Vice-Chancellor as Chairman and University Librarian as Convener. The other members include Pro-Vice Chancellor, Registrar, Faculty members of Science, Social Science, Arts & Humanities departments, Principals of various Colleges, Syndicate Members and Chairman of Department Students Union. It is on the recommendations of the committee

that various innovative services are introduced in the library for the student/library user's community.

### 4.2.2 Provide details of the following:

i. Total area of the library (in Sq.Mts.) - 2000 sq.m

ii. Total seating capacity - 150 seats

iii. Working hours:

- 8 am to 8 pm on all working days.

- 10 am to 2 pm on Second Saturdays and Sundays.

- The library remains closed on public holidays.

- Library functions on an average of 345 days in a year.

- The libraries of teaching departments are open during working hours of the Schools.

iv. Layout of the Library

(Individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources):

150 seats are provided to the readers to comfortably use the resources of the library. The University Library is divided into 8 sections and their activities are given below:

- Acquisition Section – purchase of printed and electronic books, accessioning, payment processing, physical processing including RFID tag creation.

- Technical Section – physical and technical processing of items (books, theses, audio visual materials etc.) and preparation of list of new additions.

- Maintenance Section – maintaining books and theses in stacks, reference service, display of books on special occasions and stock verification.

- Circulation Section – membership of library users, issue/return/renewal of books.

- Periodicals Section – subscription & renewal of journals including online journal databases, online bibliographic databases, archives of online journals, newspapers, popular magazines etc., and binding of back volumes of journals.

- Documentation Section - online information services, document delivery service & inter-library loan through DELNET, reprographic services, maintenance of library management package KOHA and

design, development and maintenance of library web portal (www.library.mgu.ac.in).

- Union Catalogue Section – accessioning of Ph.D. theses/ M.Phil dissertations, digitization and archiving of Ph.D. theses, uploading Ph.D. theses to Shodh Ganga (online repository of the INFLIBNET Centre) and MGU online theses library and archiving of M.Phil dissertations.

- Administration Section – establishment work.
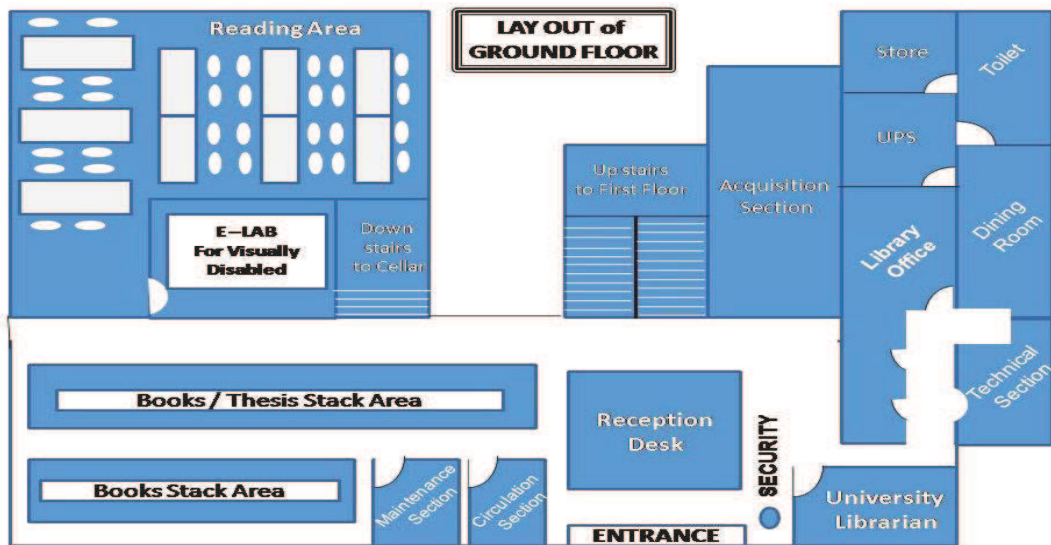


**Lay out of University Library**
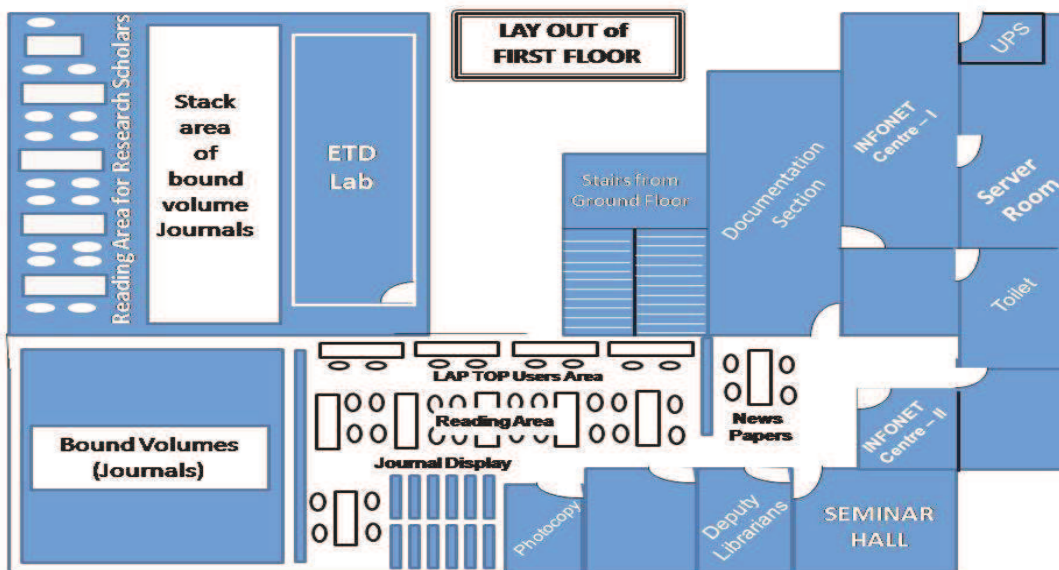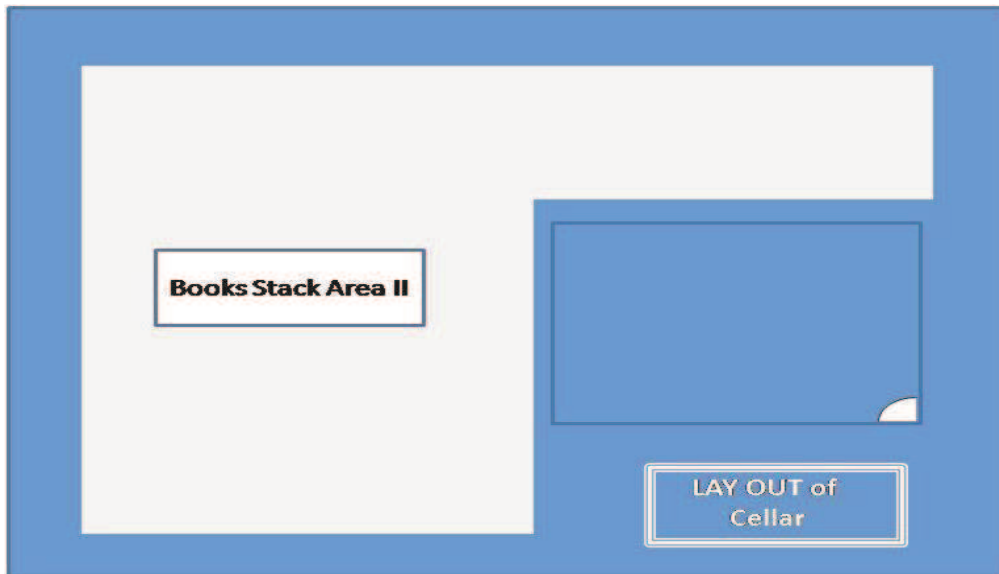
**Clear and prominent display of floor plan; adequate sign boards; fire alarm, access to differently abled users and mode of access to collection:**

Adequate sign boards have been given to identify the layout of the library. The stack room is provided with self-guiding instructions with which any reader can locate the books of his/her choice in a hazzle–free way. Classification of books and its coding has been done with the help of software/computerisation of library.

*Facilities for Visually and Physically Challenged:*

Electronic Lab for visually challenged persons has been set up in the library with an objective to provide reading facilities to blind and low vision library users. The lab has the following equipment and software for catering to the specific requirements of the visually challenged users. The library undertakes audio recording of books as per request from users who are visually challenged.

*A reading library for blind and low vision:*

a. JAWS Talking software for the blind

b. MAGic screen magnification software without speech

c. MAGic large print keyboard

d. ZoomEx instant reader

e. Ruby hand held video magnifier

f. Flash desk top print magnifier

*Talking book library:*

Angel pro talking Daisy Player-E book for the blind

*Braille Book Library:*

a. Index Basic V-4 Braille Printer

b. Duxbury Braille Translation Software

**4.2.3 Give details of the library holdings:**

| Category | No. |
|---|---|
| Books | 59000 |
| Journals | 232 |
| Bound Journals | 7500 |
| Ph.D Theses | 2135 |
| E-Journals (in UGC-Infonet, renamed as E-ShodhSindhu) | 15000 |
| Online databases (in UGC Infonet) | 11 |
| Online Archives subscribed | 185 Titles |
| Online databases subscribed | 4 |
| E-books | 7338 |
| DVDs: Educational Videos | 293 |

a) Print (books, back volumes and theses)

| Sl. No. | Name of School/Centre | Total No. of books | Books added during the last three years |
|---|---|---|---|
| 1. | University Library | 59000 | 4548 |
| 2. | School of Behavioural Sciences | 3347 | 200 |
| 3. | School of Bio Sciences | 2540 | 80 |
| 4. | School of Chemical Sciences | 4100 | 190 |
| 5. | School of Computer Sciences | 4130 | 100 |
| 6. | School of Environmental Sciences | 5607 | 66 |
| 7. | School of Gandhian Thought and Development Studies | 8695 | 200 |
| 8. | School of Indian Legal Thought | 10518 | 650 |
| 9. | School of International Relations and Politics | 7732 | 475 |
| 10. | School of Letters | 18233 | 1707 |
| 11. | School of Management and Business Studies | 7549 | 500 |
| 12. | School of Physical Education and Sports Sciences | 790 | 24 |
| 13. | School of Pure and Applied Physics | 4785 | 457 |
| 14. | School of Pedagogical Sciences | 6109 | 91 |

| 15. | School of Social Sciences | 12398 | 174 |
|---|---|---|---|
| 16. | School of Tourism Studies | 1464 | 202 |
| 17. | International and Inter University Centre for Nanoscience and Nanotechnology | 268 | 150 |
| 18. | Advanced Centre for Environmental and Sustainable Development | 393 | 103 |
| 19. | Inter University Centre for Disability Studies | 250 | 123 |
| 20. | Inter University -Instrumentation Centre | 70 | - |
| 21. | Inter University Centre for Social Science Research and Extension | 1474 | - |
| 22. | Advanced Molecular Materials Research Centre | 25 | - |
| 23. | Centre for English Language and Communication Skills | 1209 | - |
| 24. | Institute for Intensive Research in Basic Sciences | 535 | 300 |
| 25. | KN Raj Centre for Planning and Centre | 1146 | 513 |
| | **Total** | **162367** | **10853** |

b) Average number of books added during the last three years: 10853

c) Non Print (Microfiche, AV): Nil

d) Electronic e-books    : 7338

e-Journals  :15,000

Databases: 16

e) Special Collections (text books, reference books, standards, patents etc):
   Reference books: 6390

f) Book Banks - Subject specific book banks are maintained in some department libraries.

g) Question Banks-question papers of a few early years are available. Question banks pertaining to subjects are being maintained in the respective department libraries.

**4.2.4 What tools does the library deploy to provide access to the collection?**

- Provides information services on demand to the users.

- Union catalogue-conventional and computerized (OPAC).

- Library has developed special tools such as Journal Article index (Index of journal articles which cannot be traced through internet but available as hard copy in the Periodicals Section of the Library).

- Database on Kerala Studie**s** for the promotion of information services.

- These special databases are searchable on open access mode in the library website.

- These services are supplemented with full text document delivery.

- University Library has created a website hosted in the domain of IT Mission for showcasing the important activities and events of the library. Various online journal archives/e-books purchased on perpetual access, e-resources including e-journals, e-books and databases purchased/subscribed and INFONET e-Journal consortium can be made available for access through library's website www.library.mgu.ac.in

**4.2.5 To what extent is ICT deployed in the Library? Give details with regard to**

**Library Automation:**

The University Library has sufficient ICT infrastructure as detailed below:

| Sl. No. | Item | Floor area / Quantity |
|---|---|---|
| 1 | **Building** | 2000 sq. m |
| 2 | **IT Infrastructure-**<br>Desktop Computer System | 49 |
| | Server Class System | 3 |
| | Heavy Duty Printers/ Copiers | 4 |
| | Desktop Printers | 7 |
| | Scanners | 3 |
| | LCD Projector | 1 |
| | Wi-Fi Access Terminals | 3 |
| 3 | **Special Equipment for Visually Challenged:**<br>An Electronic Lab for Visually Challenged has been set up with following hardware(s) & Software(s)<br>Computers | 3 |
| | Other Equipment | 7 |
| | Software(s) | 3 |

**Total number of computers for general access:** The Library provides access to the electronic resources by providing 49 computer terminals.

**Total numbers of printers for general access:** Seven printers.

**Internet band width speed:** 1 GB

**Institutional Repository:**

The Ph.D theses awarded by the University are digitized and made available over the Internet on open access mode. MGU online theses in the library can be accessed at www.mgutheses.in. The project won the e-Governance award of the Government of Kerala in 2010. Digital repository of Ph.D theses of the university was launched by the former President of India H.E. Dr. A.P.J. Abdul Kalam on 8th November, 2008. The University continued with this pioneering effort in the country and till date, a total number of 2135 Ph.D. theses have been uploaded.

**Participation in resource sharing networks/consortia:** Yes, INFLIBNET and DELNET.

**4.2.6 Provide details (per month) with regard to**

- Average number of walk-ins : 2830 per month

- Average number of books issued/returned:830 transactions per month

- Ratio of library books to students enrolled : 108:1 approximately

- Average number of books added during the last four years: 2460

- Average number of login to e-resources :1500 per month

- Average number of e-resources downloaded/printed :17050 per month

- Number of IT (Information Technology) literacy trainings organized: 1.66 per month

**4.2.7 Give details of Specialised Services provided by the library with regard to**

**Manuscript: Nil**

**Reference**

- Provides information services on demand from users.

- Library has developed special tools such as Journal Article index

- Database on Kerala Studies for the promotion of Information services.

- Above special databases are searchable on open access mode in the library website.

- These services are supplemented with full text document delivery.

- The access to the facility has been extended to remote departments and Study centres of the University.

- Literature search service to research scholars.

- **Reprography/Scanning**

Two heavy duty printers and three scanners are used for reprography/ scanning. Reprographic services are provided to the students by way of photocopies and digital copying on CDs and DVDs.

- **Inter Library loan Service:**

The Library collects and issues journal articles and books on inter library loan which are not available in its collection to the users based on demand, mainly from DELNET and other resourceful R&D institutions at national level.

- **Information Deployment and Notification:** Email notifications for book transactions.

- **Online Public Access Catalogue (OPAC)**Web OPAC of the university is available over the internet through which the collection of university library and some department libraries are searchable. This Web OPAC is created using library management software KOHA.

URL of the web OPAC is http://mgucat.mgu.ac.in

- **Online Book suggestions facility**

All library users can suggest books on their subject area concerned via online through **KOHA-OPAC** for purchase in University Library, subject to the approval of Book purchase committee

- **Internet access:**

Facility is available in the library through campus area network having a bandwidth of 1 GB under National Knowledge Network (NKN) for students and teachers to access full texts of articles in the INFONET service of the UGC, e-books and other digital resources available.

- **Downloads**

| Sl. No. | Name of Journal Database | Usage by Mahatma Gandhi University (No. of articles downloaded) | | | |
|---|---|---|---|---|---|
| | | *Year 2012* | *Year 2013* | *Year 2014* | *Year 2015* |
| 1 | Science Direct | 79476 | 75376 | 87957 | 90196 |
| 2 | JSTOR | 21250 | 28833 | 27809 | 20641 |
| 3 | American Chemical Society | 18662 | 18437 | 26728 | 24511 |
| 4 | Wiley-Blackwell | 13886 | 1313 | 19383 | 17361 |
| 5 | Springer Link | 10788 | 18064 | 17230 | 20216 |
| 6 | Royal Society of Chemistry | 5670 | 8517 | 9946 | 9980 |
| 7 | Taylor and Francis | 4771 | 6168 | 6822 | 5659 |
| 8 | Institute of Physics | 2990 | 3014 | 3480 | 2753 |
| 9 | American Institute of Physics | 1696 | 1749 | 3062 | 3563 |

| 10 | Nature | 1680 | 1182 | 3000 | 3854 |
|----|--------|------|------|------|------|
| 11 | APS | 1598 | 953 | 2958 | 884 |
| 12 | Cambridge University Press | 911 | 1012 | 1375 | 874 |
| 13 | Project Muse | 814 | 1197 | 972 | 809 |
| 14 | Annual Reviews | 513 | 562 | 909 | 527 |
| 15 | Portland Press | 187 | 135 | 661 | 0 |
| 16 | Oxford University Press | 152 | 229 | 8 | 2836 |
| 17 | Project Euclid | 4 | 2 | 4 | 1 |
| | **Total** | **165048** | **166743** | **212304** | **204665** |
| *RANK of M G University out of 199 universities under the Consortium* | | *NA* | *29* | *27* | *29* |

- **Print outs:** Users are encouraged to download full text articles of their interest and permitted to take printouts.
- **Reading List/Bibliography Compilation***:* The library brings out a bi-monthly publication showing list of new additions to make the users aware of the latest books in different subjects which are available in the library along with their position on the shelf. The list is sent to all teaching departments, study centres of the university and libraries of other universities. It is also sent to five patrons each with the most checkouts in different categories (research scholars, the faculty, teachers of affiliated teachers, P G students and non-teaching staff of the University) by e-mail. A digital version of this publication is made available in the library website too.
- **In-house/remote access to e-resources:** The Local Area Network (LAN) in the campus provides remote access to the digital resources available with the INFONET programme of the INFLIBNET. All the teaching departments are covered in the LAN. The teaching departments are interconnected through optical cables. Hence INFONET can be accessed at the university teaching departments also.Wi-Fi facility is also provided for users of mobile phones and laptops. The Schools/Centres located outside the campus can also access the e-resources of the library through virtual private network/IP authentication.
- **User Orientation**

Library orientation programmes and library familiarization tours are conducted in the library for the benefit of new users.

- **Assistance in searching Databases**

The Librarian is providing sufficient orientation and support to the student/research scholars to search and collect relevant data. Awareness regarding appropriate database, key terms for creating search statements etc. are given for the needy.

- **INFLIBNET/IUC Facilities**

UGC INFONET centre is available within the library for the users.

School of Computer Sciences library has subscribed to 'All Society Periodicals Package' with 169 highly research oriented e-journals published by IEEE. This provides the users with unlimited in-house access by the students and researchers of the school and remote access by those from other schools using multiple logins over the campus based on IP

**4.2.8  Details of the annual library budget and the amount spent for purchasing new books and journals**

- **Statement of Expenditure of Books 2011-16**

| Sl. No. | Type of Document | Year 2011-2012 | | | Year 2012-2013 | | | Year 2013-2014 | | | Year 2014-2015 | | | Year 2015-2016 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of Document Procured | Amount Spent | Amount allotted | No. of Document procured | Amount Spent | Amount allotted | No. of Document procured | Amount Spent | Amount allotted | No. of Document procured | Amount Spent | Amount allotted | No.of Document procured | Amount Spent | Amount allotted |
| 1 | Books | 5129 | 56,88,308 | 1,79,000,00 (including State Fund of 1,45,000,00) | 1033 | 75,96,267 | 79,000,00 | 1794 | 17,66,923 | 40,000,00 | 1632 | 47,88525 | 50,000,00 | 1131 | 27,26,559 | 50,000,00 |
| 2 | E-Books (English) | 2239 | 56,50,746 | 60,00,000 (UGC XI Plan Fund) | --- | 3,49,254 | UGC XI Plan Fund for 2011- | --- - | ---- | ----- | | | | 4200+ (Malayalam e-books) | 5,00,000 | 500000.00 (UGC XII Plan fund) |
| 3 | Video lectures (DVD) | 209 | 1,39,990 | 2,00,000 | | | | | | | | | | | | |

**Journals, Online Journal Archives and Online Databases  2011-16**

| Sl. No. | Type of Document | Year 2011-2012 | | | Year 2012-2013 | | | Year 2013-2014 | | | Year 2014-2015 | | | Year 2015-2016 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. Subscribed | Amount Allotted | Amount spent | No. subscribed | Amount Allotted | Amount spent | No. Subscribed | Amount Allotted | Amount spent | No. subscribed | Amount Allotted | Amount spent | No. of Document procured | Amount Spent | Amount allotted |
| 1 | Print Journals | 270 | 44,00,000.00 | 4197725 | 285 | 44,500,00.00 | 4399198 | Fund Not Allotted | | | 256 | 64,00,000.00 | 4847580.00 | 232 | 8000000 | 45,42,754.00 |
| 2 | Online Journal Archives | 79 | 70,00,000.00 (UGC Fund) | 5194363 | - | - | - | | | | 107 | 15,00,000 | 1362026.00 | 134 | - | 15,67,350.00 |
| 3 | Online Databases | 2 | 10,00,000.00 | 712575 | 3 | | 1277195 | | | | 4 | | 1433035.00 | 6 | | 1809272.00 |

296

### 4.2.9 What initiatives has the University taken to make the library a 'happening place' on campus?

Online reading facility is provided in the Infonet Lab setup in two rooms. Besides, Wi-Fi facility is provided for users with laptop.

*Electronic Theses and Dissertations (ETD) Lab:* A Laboratory for electronic theses and dissertations was setup in the Library with the financial assistance provided by the INFLIBNET Centre. Digitization and archiving of theses are carried out at this centre.

*Electronic Lab for Visually Challenged:* Electronic Lab for visually challenged has been set up in the library with the objective of providing reading facilities to blind and low vision library users. The lab has equipment and software for catering to the specific requirements of the visually challenged persons. As part of providing service, the library started audio recording of books as per request from users who are sight denied.

*Materials for career and personality development:* The University Library has a collection of books and periodicals in areas of career guidance and personality development. Materials in the areas of study, leisure too are procured and displayed prominently in the library. Several newspapers and popular magazines in English and local languages is another attraction of the library.

*Training in software and other such activities:* Regular training is given to students and faculty in the use of programmes and software in the areas of research and use of library materials. This includes software Glike Mendley, Zotero, Urkund etc and programmes like Shodh Ganga, J Gate, INFONET etc.

*International Book Fair (INBOFA 2012):* Mahatma Gandhi University organized an International Book Fair (INBOFA from 13 to 23 January 2012) at the sports pavilion of the university campus. Fifty two major national and international publishers, distributors and online information service providers participated. A variety of programmes such as theme-specific talks, seminars, discussions, book-launches, face-to-face with authors and cultural programmes were also conducted. University library had alone purchased 2571 books at a total cost of Rs.69, 42,706/-.Various department libraries and libraries of affiliated colleges also have purchased books from INBOFA stalls. Overall, sales crossed Rs.2 Crores during the event.

### 4.2.10 What are the strategies used by the library to collect feedback from its users? How is the feedback analysed and used for the improvement of the library services?

The library collects the feedback from its users on a regular basis. The feedback collected are analysed on individual and group basis for identifying the requirements and expectations of the users. This forms the basis for devising strategies to improve the quality of services provided by the library.

### 4.2.11 List the efforts made towards the infrastructural development of the library in the last six years.

Many innovative services have been introduced in the library during the past five years.

***Facilities for Visually and Physically Challenged:***

Electronic Lab for Visually Challenged persons has been set up in the library with an objective to provide reading facilities to blind and low vision library users. The lab has the following equipment and software for catering to the specific requirements of the visually challenged users. As part of providing service, the library started audio recording of books as per request from users who are visually challenged.

*A reading library for blind and low vision*

a. JAWS Talking software for the blind

b. MAGic screen magnification software without speech

c. MAGic large print keyboard

d. ZoomEx instant reader

e. Ruby hand held video magnifier

f. Flash desk top print magnifier

*Talking book library*

Angel pro talking Daisy Player-e book for the blind

*Braille Book Library*

a. Index Basic V-4 Braille Printer

b. Duxbury Braille Translation Software

**RFID/CCTV system implementation**

University Library has implemented RFID/CCTV system using annual state plan fund 2015-16 at a total cost of Rs. 40 Lakhs approximately. The project aims at modernization of in-house operations of the library using RFID technology. As part of its implementation, all books available in the library have been tagged with RFID tags. The project is useful with regard to its accuracy and speed in issue/return of books using RFID Readers, enables anti-theft control of books and time-saver in stock-verification of books. The system also enables self-check-in/ check-out of books by the library users themselves using kiosk and drop box installed, at rush hours due to integration with KOHA-the integrated library management software used for library automation. As an additional security facility, CCTVs have also been installed with proper monitoring and recording facilities**.**

**International Book Fair (INBOFA 2012)**

Mahatma Gandhi University organized an International Book Fair (INBOFA from 13 to 23 January 2012) at the sports pavilion of the university campus. Conceived primarily as an academic carnival rather than a mere exhibition of books, the fair provided opportunities for serious readers, writers, researchers, teachers, students, publishers and the general public to meet and interact on issues concerned with reading and writing. Fifty two major national and international publishers, distributors and online information service providers participated. A variety of programmes such as theme-specific talks, seminars, discussions, book-launches, face-to-face with authors and cultural programmes were also conducted. University library had alone purchased 2571 books at a total cost of Rs.69, 42,706/-.Various department libraries and libraries of affiliated colleges also have purchased books from INBOFA stalls. Overall, sales crossed Rs.2 Crores during the event.

**Other initiatives**

- KOHA implementation for library automation and union catalogue development.

- Introduction of library membership for public (for graduates only).

- Extended remote access of e-resources subscribed in the library including UGC-INFONET facility to university schools/centres located outside the campus.

- Web portal creation exclusively for the library.

- Online plagiarism check system has been introduced in the university. The University Library houses a large collection of digital resources that include INFLIBNET, international journals of national/international reputation and plagiarism checking.

## 4.3 IT Infrastructure

### 4.3.1Does the university have a comprehensive IT policy with regard to:

- IT Service Management: The entire academic life cycle (from admission to issuance of degree certificate) of a student in the university is handled with the help of ICT.

- Information Security: University has Campus Area Network (CAN) which includes a tightly secured gateway. Internal network security is ensured through firewalls, antivirus software etc.

- Risk Management: The university has implemented a TIER III Standard Data Centre with all professional industry leading security features (CISCO ASA series firewall plus NMS and Radius implementation) in place. The university has initiated a comprehensive disaster recovery plan.

- Software Asset Management: The university has developed its own ERP based core business processing software to handle its operations. Constant updating and change management is followed to improve productivity.

- Open Source Resources: The data centre of the university is operating fully under open source platform.

- Green Computing: The University has initiated steps to upgrade the data centre with green computing compliance. For instance, upgrading of servers with energy efficient processors and allied equipments is done. All future acquisitions into the client sides are planned to be energy efficient rugged thin clients. Steps to reduce e-waste generation and accumulation, promote recycling/reuse etc are also part of the policy.

- The university has initiated steps to prevent the accumulation of e-waste in the campus through a concerted effort whereby physical verification, certification and administrative approval of the ineffectual electronic gadgets and appliances is done by competent authority. An agreement with Clean Kerala Company, a Kerala Government undertaking for safe disposal of e-waste was also made.

### 4.3.2 Give details of the University's computing facilities i.e., hardware and software.

- Number of systems with individual configurations:800 Nos

- Computer Student ratio:0.55 : 1

- Dedicated Computing Facilities available (Most of the Schools have their own software like SPSS)

- **LAN facility:** All teaching departments have LAN connected computer labs.

  **Internet facility:** All computers of the faculty, various research labs, university library and the department libraries are connected to the university system administration with internet facility. Wi-Fi connectivity is available to students, research scholars, faculty members and non-teaching communities.

- Proprietary software: Microsoft Windows 8.1, Windows 7, Matlab, Visual studio, SQL Server, Adobe licence, antivirus licence etc.

- Number of nodes/ with internet facility: 1500 NODES

### 4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

**IT Infrastructure**

The University strives to provide its services ensuring transparency and efficiency by minimising paper work and computerising most of the

administrative and academic correspondence. The University Computer Centre and CETEX have been instituted to take lead in the in-house development of software systems.

The facilities in the Centre for High Performance Computing of the University is as follows:

## HARD WARE:

(1) HPC Cluster- I : Comprising of 10 numbers of HCL Global Line dual Intel Xeon 3.0Ghz processor Servers with 2GB DDR2 RAM, 73GB SCSI HDD works on Redhat Enterprise Linux OS and Redhat Linux Clustering enablement, that uses MPICH Library for distributed computing.

(2) HPC Cluster- II : Comprising of 2 numbers of HCL Global Line 4 x Xeon Ten core Servers and one Xeon Eight core Server (total 88 processors) with 4x8GB DDR3 RAM 3x300 GB SAS HDD works on Redhat Enterprise Linux OS and Redhat Linux Clustering enablement, that uses MPICH Library for distributed computing.

(3) GPU Server-I : Wipro Z2245 with 2 x Xeon Hexacore E5645 processor, 4x8GB DDR3 RAM, 500GB SATA HDD, Tesla M2090 GPU, DVD RW works on Redhat Linux

(4) GPU Server-II: Dell PowerEdge T630 with 2 x Xeon E5-2620 processor, 4x8GB RDIMM RAM, 1TB SATA HDD, NVDIA Tesla K20C GPU, DVD RW works on Redhat Linux.

(5) PC Cluster-I: Comprising of 18 numbers of PCs with Pentium Core2Duo E8400, 2GB DDR3 RAM, 320GB HDD, DVD RW, 18.5" TFT monitor works on Linux Ubuntu 10.04.

(6) PC Cluster-II: Comprising of 40 numbers of PCs with Pentium D processor, 4GB RAM, 80GB HDD, DVD, 17" TFT monitor works on Linux Ubuntu 14.04.

(7) HP BL360 Blade enclosure with 2 full blades and 2 half blades with E series Xeon processors

(8) IBM Rack servers Xeon processor – 5 numbers

(9) Wipro tower servers 2 numbers

(10) Sonicwall 4000 series Universal threat management system (UTM)

## SOFTWARE:

(1) MPICH – Message Passing Interface Chameleon used in distributed computing, used by Research scholars

(2) MATHLAB + Fuzzy Logic & Parallel Computing – Mathematical Manipulation Programme, used by M.Tech Computer Science students.

(3) CUDA – Compute Unified Device Architecture used in GPU Programming, used by Research scholars.

(4) AMBER

- University Data Centre: Infrastructure development for Tier-III standard data centre is completed. The work of migrating from Tier I to Tier III is progressing. The blade servers of HP are used in the university for the management of all services offered. There are four blade servers and five rack servers.

- Campus Wi-Fi connectivity

- Staff Training Centre and Web Centre

- NKN Connectivity

- Campus wide OFC Network

- Dual leased Line Internet connectivity (BSNL)

The following major software systems have been implemented based on the above IT infrastructure facilities:

**I. Introduced Biometric punching system for attendance:** Biometric punching has been introduced to teachers and non-teaching staff, to ensure punctuality of attendance and also to provide electronic access to each staff member/researcher to the attendance marking system.

**II. Finance**

The Finance branch of the University has been completely automated with the following facilities:

**a. CUFIN:** Developed and implemented in 2007 for salary preparation. Python and glade are used as front end and python and postgre SQL database is used as back end.

**b. e-Payment Gateway integration:** Introduced the payment gateway system to collect various fees in collaboration with State Bank of Travancore.

**III. Examination Applications – Student Life Cycle Management System:** Developed applications to handle the entire life cycle of a student. (From admission till issuing of degree certificate). All activities of examination wing have already been computerized which include the following functions;

- Online examination notifications

- Online examination registrations

- Online hall ticket issuing

- Online examination results

- Online revaluation application processing

- Degree certificates

**IV. Admission:** Centralised Allotment Process (Single Window Admission System) has been developed for UG and PG admissions. The university is the pioneer in developing an in-house application for this process.

**V. Research:** Research portal has been started in connection with research admissions and progress.

**Recent Advancements in the area:**

1. **M-Governance:** The university is extensively using SMS gateways of Kerala Government and Central Government (esms.kerala.gov.in andesms.mgov.gov.in) for giving SMS to the students while using various online applications like e-payment etc.

2. **Moving to Cloud environment:** Planning to migrate to virtualisation and cloud infrastructure.

3. **E-Procurement using state e-procurement facility:** Already started using e-tendering facility for tendering process.

4.3.4 **Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.**

The following measures were taken to promote access to online teaching and learning resources

- Digital Library is available in the campus

- Learning Management System–Moodle is available (an open source software developed in accordance with the principles of pedagogy).

- Through INFLIBNET and DELNET connection, an exhaustive quantity of online teaching materials is made available to all faculty and students. Smart class rooms equipped with online teaching and webinar facilities are available in various schools.

- Most of the classrooms have facility for internet access through LAN.

- The university library conducts training programmes for teachers and students whenever new software is introduced. Every new member of

the library is oriented with the services available in the library and the mode of utilisation of various services.

**4.3.5 What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new/future challenges?**

- Implemented Moodle, a learning management system.

- Smart class rooms are established in all the Schools facilitating the conduct of seminars, discussions and demonstrations utilising e learning materials.

- Edmodo, an open-source software is implemented in some Schools of the University which acts as an online teaching-learning platform and as an online evaluating mechanism ensuring transparency.

- Infonet is available in all the Schools of the University.

- School of Behavioural Sciences uses Rorschach interpretative assistance programme which is a software designed to promote skill and knowledge in assessment to facilitate learning.

**4.3.6 What are the IT facilities available to individual teachers for effective teaching and quality research?**

- A personal computer with LAN connection is provided to all teachers

- Digital library facility

- Library Management System- KOHA is available in all schools and the library of each school is connected to main library also.

- Class rooms are ICT enabled.

- Access to e-learning materials is provided.

- Digitalized PhD theses are available in the library.

**4.3.7 Give details of ICT-enabled classrooms/learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?**

- As part of introducing smart class room facility, the following items were supplied to various Departments:

| Sl. No. | Name of the Item | Number Supplied |
|---------|------------------|-----------------|
| 1 | DLP/LCD Projector | 68 |
| 2 | Laptop | 68 |
| 3 | Visual Presenter | 17 |
| 4 | Interactive Board | 68 |

| 5 | Photocopier | 26 |
|---|---|---|
| 6 | PA System | 35 |
| 7 | Scanner | 10 |
| 8 | Printer | 20 |
| 9 | 5 KVA UPS | 6 |
| 10 | High Speed Scanner | 1 |
| 11 | Desktop Computer | 95 |
| 12 | Desk top Computer with special software for blind teachers | 1 |
| 13 | Lecture Stand | 10 |
| 14 | Wireless Mouse | 68 |
| 15 | Video Camera | 10 |

- For training teachers/faculty, one smart classroom is arranged at the Conference Hall/Syndicate Room in the administrative block.

- Sufficient training is given to faculty for using smart class room facility.

- Smart class room introduction is done as a part of career guidance programme.

### 4.3.8 How are the faculty assisted in preparing computer-aided teaching-learning materials? What are the facilities available in the university for such initiatives?

- All teachers are provided with personal computers with unlimited internet connectivity

- Schools/Centres are equipped with smart class rooms.

- Modern multimedia teaching aids like LCD projectors, smart boards etc. are available.

- Virtual programmes, teaching learning software and video conferencing facilities are also available.

- The university encourages blended learning by using online teaching learning platforms and e-learning resources.

- Orientation programmes and hands on training for familiarising faculty members with the use of various software for teaching-learning are conducted regularly.

**4.3.9 How are the computers and their accessories maintained?**

Warranty/Annual Maintenance Contract (AMC) system is maintained for the upkeep of computers. Computers and accessories that are not under the warranty period are maintained by the University System Administration team. It has qualified and skilled staff to repair and maintain computers and accessories.

Highly sophisticated gadgets that cannot be repaired by the team are maintained by inviting quotations from competent firms and work is assigned to firms that quote the lowest amount. Faulty components are repaired depending on the fault/damage.

**4.3.10 Does the University avail of the National Knowledge Network connectivity? If so, what are the services availed of?**

Yes. The university avails the National Knowledge Network connectivity for accessing the digital scholarly resources provided by the UGC Inflibnet Centre. Services provided by the National Knowledge Network are high speed internet and the same connection is being used for e-governance and Wi-Fi connectivity in the university. National Knowledge Network is also provided in other centres of the university.

**4.3.11 Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?**

Yes. These tools are used for general information gathering. Deeper and more authentic knowledge discovery is done through the utilization of the web resources of reputed journals and research publications. The libraries have INFLIBNET and DELNET connection which makes access to e –learning sources easy.

**4.3.12 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the University.**

The following table shows the expenditure on the update, deployment and maintenance of computers.

**Amount in rupees (Lakhs):**

| 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|---------|---------|---------|---------|---------|---------|
| 6.15 | 63 | 64.5 | 64.5 | 71.09 | 78.99 |

### 4.3.13 What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?

1) The University is planning for developing MOOC programme and online courses in various departments and Inter University Centres as part of the "Swayam" project of the MHRD.

2) e-seminars, e-workshops, e-conferences etc. were organized in many of the Schools/Centres.

3) e- content development is included in many of the student projects.

### 4.4 Maintenance of Campus Facilities

### 4.4.1 Does the University have an estate office/designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

Yes. The University has an Estate Officer in the rank of Assistant Registrar to look after the maintenance of buildings, class rooms, etc. The University has a total area of 163.4819 acres of land. The office of Estate Officer was established for developing the university campuses with a view to creating a learning ambience in the campus. It also aims at development of suitable plans and projects for the entire campus area by co-ordinating the various construction and plantation activities taking place in the campus. The administrative aspects pertaining to maintenance and repair of university buildings are taken care of by the office of the Estate Officer and those of the major repairs by the Planning and Development section. The repairs and maintenance of university buildings are carried out by the University Engineering Unit.

Some of the campus specific initiatives taken by the office are given below

8. Being a drought prone area, thrust was given for water conservation initiatives like construction of rain water harvesting structures. A 24 hour uninterrupted water supply is ensured by the university through a captive water supply scheme to the campus. A quarry in the campus is utilised for rain water harvesting. Rain water harvesting has been done in a big scale in most of the existing buildings and the university has one of the biggest water conservation ponds in the country with a size of 53 m x 40 m x 22 m. It holds approximately 4.5 crores litres of water which meets the water needs of the university.

9. University has also initiated measures to recharge seven wells and one more quarry with rain water collected from roof top of buildings through an innovative well charging mechanism. Water is sourced from 8 wells and 3 bore wells located in different locations in the campus. The water consumption per day is 1.5 lakhs litres. As part of its environmental

sustainability measures, the University added waste management systems by installing biogas plants too in the campus.

10. Teak, mango, tamarind, jackfruit and a number of fruit bearing plants and trees are also planted in the campus as part of greening the campus every year.

11. The cutting of trees is restricted in the campus to minimise environmental damage and to keep it a haven of biodiversity.

12. The office in collaboration with School of Environmental Sciences has conducted a survey for analysing the biodiversity of the campus resulting in the naming of trees in 2012.

## 4.4.2 How are the infrastructure facilities, services and equipment maintained? Give details.

The various administrative responsibilities/ maintenance of infrastructure facilities (repairs, plumbing, and electricity) are carried out through the Engineering department. The instruments are maintained through university Instrumentation Centre, AMC and departmental allocation of funds. Other maintenance work is done through the Estate officer and the security wing.

# CRITERION - V : STUDENT SUPPORT AND PROGRESSION

**CRITERION V: STUDENT SUPPORT AND PROGRESSION**

# 5.1 Student Mentoring and Support

### 5.1.1 Does the university have a system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes, The university has an effective transparent system for student support and mentoring. According to the guidelines of CSS, Faculty Advisors are appointed for the welfare of the students of each PG Programme. Students are helped to choose appropriate electives. Each student is allotted a guide to prepare their dissertation as per the curriculum.

The Schools/Centres ensure smooth induction of fresh batches at the beginning of the academic session through an orientation programme. This orientation programme includes a welcome to the newcomers by the senior batches in which they are also introduced to the programmes, the courses and the curriculum. The new comers are guided by the teaching and non-teaching staff to familiarize with the formalities after admission and help them adapt to the new environment. The senior students also render all possible support whenever required. The students are provided with necessary guidance and counselling by the counsellors, teachers and wardens. The students are under the guidance of a faculty member who takes care of all aspects of mentoring including counseling which takes care of emotional, intellectual, moral and personal support.

All the Schools/Departments have Faculty Advisors for each semester to address academic and personal issues of students. The mentors take up the needs/relevant issues of the students in the Faculty Council and necessary remedial measures put in place.

A three-day workshop to improve the mentoring skills of faculty was organized by the School of Behavioral Sciences in March 2016. Experts from various institutions of national repute took part in the workshop.

Students belonging to SC and ST categories are supported by the financial schemes of the Government and other welfare agencies. Remedial coaching and other support as and when necessary are given, individually or collectively.

The Department of Student Services takes care of the overall development and welfare of the students and coordinates socio-literary and cultural activities among them. Prevention of ragging is ensured by DSS through various awareness/orientation programmes. National Service Scheme and University Employment and Guidance Bureau also render valuable services for the support mechanism and mentoring of the students. Special programmes are conducted to impart soft skills, leadership qualities, personality traits, communication skills, essential life skills, internet ethics, and etiquette among

the students. The university helps and encourages the students to avail various scholarships and grants like e-Grants, ASPIRE, INSPIRE, KSCSTE, KVPY etc.

### 5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?

The University offers various facilities for the academic mentoring. Major provisions are as follows.

- Erudite Scholar-in-Residence programme
- Seminar/conferences in frontier areas
- Workshops and summer schools.
- Extension lectures
- Library
- Web Centre
- e- Journals
- Talking Library for the blind
- NSS Camps
- Field Visits
- Industry Familiarisation trips
- Flipped Class rooms
- Online Interaction with Industry
- Internship Programmes
- Wi-fi Campus

The students can meet the Faculty Advisors for various academic activities like the preparation of research papers, selection of topics for seminars etc. The Faculty Advisors motivate the students to present papers in the national and international seminars. The Faculty gives special lectures to the academically weaker sections of the students in each school.

The students are encouraged to establish one-to-one linkage with the scholars visiting the university for future academic endeavors. These include several scholars, scientists, industrialists, management exponents, Nobel laureates and men and women of letters that the University periodically invite for academic deliberations which provide ample opportunities to the students to redefine and fine tune their vision about their scholastic pursuit.

To give a few specific examples from individual schools, the School of Computer Science has a healthy practice of encouraging student initiated academic and technical activities. The School has been organizing an annual technical meet - "Interface" since 1996. The publishing of an annual technical

publication since 1999 titled *IT Glimpse* is another major facet. The event aims at bringing together computer science students from various universities and institutions and to provide a common platform to share their talents by means of a series of technically challenging competitions like paper presentations, technical quiz, programming and troubleshooting. Event management of this magnitude enriches the technical/academic knowledge of the students in addition to the enhancing of soft skills like organizing capacity, peer group management skills, communication skills etc. It also helps to establish academic interactions among students and between students and alumni of the school.

The School of Indian Legal Thought conducts legal aid programmes and training is given to students for attending various national as well as International Moot Courts. The school of International Relation conducted a summer school on public policy and governance in collaboration with ISDG.

Special refresher classes are also conducted for the benefit of the students to appear for various competitive examinations like PSC, Staff Selection Commission, UPSC, IBPS, CSIR, UGC NET, GATE etc.

**5.1.3 Does the university have any personal enhancement and development schemes such as career counselling, soft skill development, career-path-identification, and orientation to well-being for its students? Give details of such schemes.**

The students are motivated to attend the programmes conducted by the University Employment Information and Guidance Bureau for personal enhancement, career identification, and soft skill development, besides special programmes organized by the schools, NSS and DSS.

One of the major identified drawbacks among the students is the lack of appropriate communication skills for which the university provides special attention. In order to empower students with English speaking skills, Thursday Club has been formed under the aegis of School of Environmental Sciences, where the students gather every Thursday and discuss general topics of their interest in English coordinated by a faculty member.

The School of Management and Business Studies, conducts a week-long Finishing School programme in the last semester of MBA programme. Thrust is being given to identifying and rectifying skill/ competence gaps to enhance employability of the students. Skill training sessions are also conducted in every four months for a period of three days to enhance their skills.

The School of Indian Legal Thought has a scheme for improving professional skills of the students. Eminent lawyers are invited to the campus for interaction and guidance. The School has introduced mock trials, court visits, public interest lawyering and para legal services like legal awareness campaigns. The broad objectives of the initiatives are:

✓ **Mock Trial**

  ➢ For improving the practical professional skill of law students.

  ➢ Imaginary legal issues which have close connection with the current society are selected for mock trials to enhance the sensitivity of the students to socially relevant legal matters.

✓ **Court Visit**

  ➢ Students are sent to courts for observation of court proceedings and to keep a record of the proceedings.

  ➢ The institution has assigned one law firm each for a group of four students. The students are sent to law firms to improving their drafting skills.

✓ **Public Interest Lawyering, Legal and Para Legal Services (Legal Aid Clinic)**

  ➢ The School organizes regular legal aid camps at selected areas under the auspices of the Legal Aid Clinic for the benefit of the common people. Legal awareness/literacy programmes are conducted in which the students play the lead role to fine tune their skill sets as a professional lawyer. Support of legal service authorities is also sought in this connection.

  ➢ An important activity of the Department of Life Long Learning and Extension is the 'Counsellor on Call' facility. It is functioning as part of the personality development centre of the department. Students from any department can avail the service of a Counsellor on prior appointment. The department will provide the service of the Counsellor and the students can discuss the matter with the Counsellor.

   The students of the master's programme are exposed to research by linking them with the research scholars for assisting in various projects. Similarly the students and research scholars are trained in organizing international and national seminars/conferences by delegating them in various committees. This will enhance the leadership skills of the students and scholars.

  ➢ School of Computer Sciences has been organizing an annual technical meet "Interface" since 1996 and publishing an annual technical publication "IT Glimpse" since 1999. The event provides a common platform to students to share their talents by means of a series of technically challenging competitions like paper presentations, technical quiz, programming, N/W gaming, troubleshooting enriching their technical/academic knowledge.

**5.1.4 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?**

Yes. All Schools and Centres provide the students with the necessary help in obtaining educational loan from banks and other institutions, as and when necessary. Schools make the documentation and certification process easy and accessible to students who need financial help.

**5.1.5 Does the university publish its updated prospectus and handbook annually? If yes, what are the main issues / activities / information included / provided to students through these documents? Is there a provision for online access?**

Yes. Admission prospectus is published online every year. All details regarding the programmes, fee structure, admission procedure, entrance examination details and reservation criteria are included in the prospectus. All admission procedures are done online. All the schools have their own brochures.

**5.1.6 Specify the type and number of university scholarships/free ships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M.Phil/ Ph.D/Diploma/Others (please specify)**

| Sl. No | Type of Fellowship | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | 2015-16 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No* | Amount | No* | Amount | No* | Amount | No* | Amount | No* | Amount | No* | Amount |
| 1 | University JRF for Ph.D | 120 | 99,99,641 | 160 | 99,95,129 | 106 | 51,03,975 | 257 | 1,49,99,083 | 200 | 1,39,30,238 | 230 | 2,75,01,702 |
| 2 | University PDF | -- | -- | 2 | 80,266 | 3 | 1,44,266 | 3 | 3,20,958 | 2 | 2,73,858 | 2 | 1,13,077 |
| 3 | CSIR JRF /SRF | -- | -- | 4 | 7,19,183 | 9 | 15,10,915 | 12 | 25,23,619 | 14 | 17,30,195 | 12 | 29,41,338 |
| 4 | UGC/JRF/SRF | 44 | 60,19,410 | 40 | 89,94,419 | 123 | 1,49,78,805 | 165 | 1,79,59,835 | 188 | 3,94,91,785 | 164 | 6,06,91,129 |
| 5 | DST INSPIRE | -- | -- | 1 | 2,50,400 | 2 | 5,00,800 | 7 | 21,19,800 | 12 | 30,28,123 | 09 | 38,98,282 |
| 6 | ICSSR Senior Fellowship | -- | -- | -- | -- | 1 | 2,40,000 | 1 | 2,25,679 | --- | --- | ---- | --- |
| 7 | ICSSR Doctoral Fellowship | -- | -- | -- | -- | -- | -- | 1 | 1,00,000 | 1 | 92,000 | 01 | 92,000 |
| 8 | RFSMS | 15 | 14,68,000 | 16 | 31,78,829 | 21 | 40,02,473 | 22 | 28,83,971 | 19 | 31,78,603 | 11 | 10,83,255 |
| 9 | RGNF | 21 | 34,91,199 | 26 | 63,10,434 | 22 | 34,56,679 | 13 | 20,96,868 | 09 | 14,26,110 | 04 | 80,500 |
| 10 | ASPIRE | 7 | 56,000 | 69 | 8,74,000 | 91 | 12,25,000 | 7 | 1,04,000 | 99 | 14,33,091 | 98 | 26,94,708 |
| 11 | KSCSTE | 05 | 6,72,849 | 05 | 6,69,000 | 08 | 14,01,827 | 12 | 31,00,937 | 12 | 27,54,891 | 09 | 18,41,801 |
| 12 | E-GRANTS | -- | -- | 149 | 2925687 | 136 | 4091086 | 116 | 4774065 | 144 | 4178136 | 92 | 5825388 |
| | Total | 212 | 2,17,07,099 | 472 | 3,39,97,347 | 522 | 3,66,55,826 | 616 | 5,1208,815 | 700 | 7,15,17,030 | 632 | 10,67,63,180 |

*Number of Students

Total Amount : Rs. 32,18,49,297
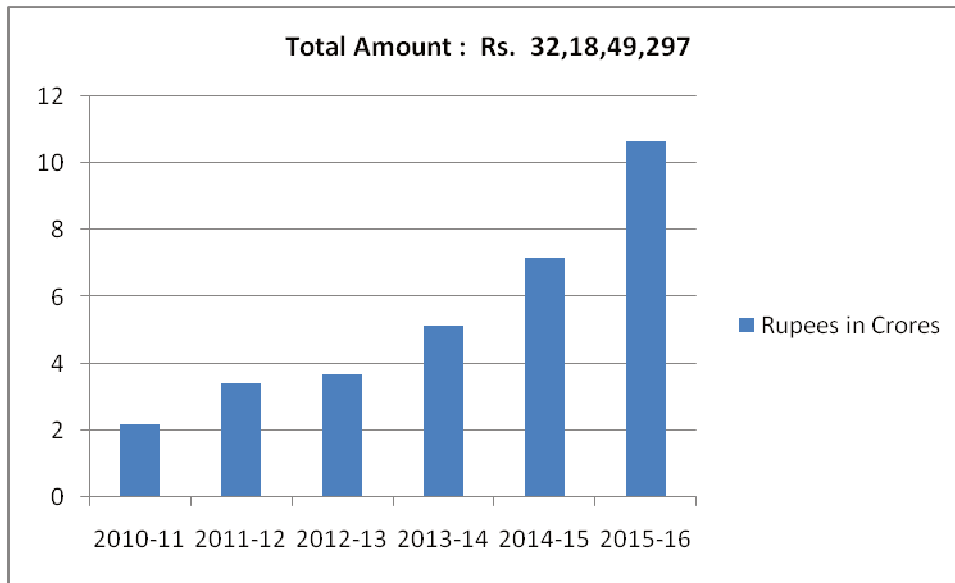
**5.1.7 What percentage of students receive financial assistance from state government, central government and other national agencies (Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)?**

During the last five years students belonging to different categories including Ph.D scholars have received 65% of their financial assistance from the Central Government   and 35% from the state government.

**5.1.8 Does the university have an International Student Cell to attract foreign students and cater to their needs?**

The University has an explicit policy and strategy for attracting foreign students. The University has a Centre for International Cooperation (UCIC), established in 2011, which is exclusively   for coordinating the enrolment of international students and cater to their needs, with the support of the Indian Council of Cultural Relations (ICCR).

The procedure and instructions for foreign students who wish to apply for the University programmes are in the public domain (University web site www.mgu.ac.in).

**List of Foreign Students Currently Studying/ Admitted to Mahatma Gandhi University through the ICCR Sponsored Cultural Exchange Schemes / Exchange Scholars /MoU/Self-Financing Scheme during 2010-16**

**2010 – 2011**

| Sl. No. | Name of the Students | Country | Course and Scheme | College/School |
|---|---|---|---|---|
| 1. | Ms.Louise Pageot | France | M.A Politics and International Relations (MoU) | SIRP, MG University |
| 2. | Ms.Marie Houdin | France | M.A Politics and International Relations (MoU) | SIRP, MG University |
| 3. | Ms.Pauline Calvez | France | M.A Politics and International Relations (MoU) | SIRP, MG University |
| 4. | Mr.Antoine De Seigneurens | France | M.A Politics and International Relations (MoU) | SIRP, MG University |
| 5. | Mr.Vincent Sacau | France | M.A Politics and International Relations (MoU) | SIRP, MG University |
| 6. | Ms.Gao Wenjing | China | M.A Politics and International Relations (Exchange) | SIRP, MG University |
| 7. | Mr.Tran Minh Nhan | Vietnam | M.A Politics and International Relations (ICCR/CE) | SIRP, MG University |
| 8. | Ms.Elif Bali | Turkey | M.Phil Politics and International Relations (ICCR/CE) | SIRP, MG University |
| 9. | Mr.Tito R Mhagama | Tanzania | MBA (ICCR/CE) | SMBS, MG University |

**2011 – 2012**

| Sl. No. | Name of the Students | Country | Course and Scheme | College/School |
|---|---|---|---|---|
| 1 | Ms.Oceng Frede Amito | Uganda | M.Sc Food Service Management (ICCR/CE) | Assumption College, Changanacherry |
| 2 | Ms.Lwamusai Marsha | Uganda | MBA (ICCR/CE) | Girideepam Institute of Advanced Learning, Kottayam |
| 3 | Mr.Kamya Joseph | Uganda | B.Com (ICCR/CE) | FCMS, Chry |
| 4 | Mr.Mwanje Ssenono Aloysius | Uganda | M.Sc. (IT) (ICCR/CE) | UCAS, Pathanamthitta |
| 5 | Dr..Hanna Barbara Urbanska | Poland | PDF (ICCR/CE) | School of Letters , MG University |
| 6 | Ms.Mallet Oriane | France | M.A Politics and International Relations (MoU) | SIRP, MG University |
| 7 | Ms.Caillon Marine | France | M.A Politics and International Relations (MoU) | SIRP, MG University |

**2012 – 2013**

| Sl. No. | Name of the Students | Country | Course and Scheme | College/School |
|---|---|---|---|---|
| 1 | Mr. El. Hadji Mamour Sakho | Senegal | Ph.D. ( ICCR/ ASS) | SPAP , MG University |
| 2 | Mr. Zhussip Zhumagaliyev | Kazakhstan | M.A. Politics and International Relations (ICCR/GCSS) | SIRP, MG University |
| 3 | Mr. Imanirarora Lote | Rwanda | Master in Comp.Sc./IT (ICCR/ASS) | School of Computer Sciences, MG University |
| 4 | Mr. Sho Tanaka | Japan | M.A. Politics and International Relations (ICCR/CEP) | SIRP, MG University |
| 5 | Ms. Céline Di Mantova | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 6 | Ms. Alma Laplace | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 7 | Ms.Chloé Delpierre | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 8 | Mr. Simon Cannone | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 9 | Mr. Derouault Jean-Baptiste | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 10 | Ms. Jessica K. Haven | United States | M.A. (Development Studies) Independent | SGTDS, M.G. University |

**2013 – 2014**

| Sl. No. | Name of the Students | Country | Course and Scheme | College/School |
|---|---|---|---|---|
| 1 | Mr. Tigran Ghazaryan | Armenia | MBA (GCSS) | Girideepam, Kottayam |
| 2 | Mr. Ravneel Prakash Mani | Fiji | B.Sc. (Comp. Sc.) (GCSS) | UCAS, Pullarikunnu |
| 3 | Mr. Kwasi Mensah Nyarko | Ghana | M.A. Politics and International Relations (ASS) | SIRP, MG University |
| 4 | Ms. Ni Luh Hindy Citra Satyawati Inggas | Indonesia | B.A. Economics (GCSS) | K.E. College, Mannanam |
| 5 | Mr. Adoum Idriss Adoum | Chad | M.A. Politics and International Relations (ASS) | SIRP, MG University |
| 6 | Mr. Joseph Phillipo | Tanzania | M.Sc. (Comp. Sc.) (ASS) | School of Computer Sciences, M.G. University |
| 7 | Mr Lucas Pardal | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 8 | Mr Hugo Chene | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 9 | Mr. Feyisa Rita Melaku | Ethiopia | Ph.D. in Social Work (ASS) | SGTDS, MG University |

**2014 – 2015**

| Sl. No. | Name of the Students | Country | Course and Scheme | College/School |
|---|---|---|---|---|
| 1 | Mr. Corentin Maurice Daniel Mercier | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 2 | Ms.Fanny Jeanette Marie Josephe Ragot | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 3 | Ms.Julie Marie Rousseau | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 4 | Mr. Hay Sambo | Cambodia | M.Sc. (Comp. Sc.) (Mekon Ganga Scholarship Scheme) | School of Computer Sciences, M.G. University |
| 5 | Mr. You Vanndy | Cambodia | M.Sc. (Comp. Sc.) (Mekon Ganga Scholarship Scheme) | School of Computer Sciences, M.G. University |
| 6 | Ms. Ellen Twamanguluka Nghikembua | Namibia | M.Sc. Psychology (ASS) | SBS, M.G. University |

**2015 – 2016**

| Sl. No. | Name of the Students | Country | Course and Scheme | College/School |
|---|---|---|---|---|
| 1 | Ms. Camille Nelly Madeleine | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 2 | Mr. William Emilien | France | M.A. Politics and International Relations (MoU) | SIRP, MG University |
| 3 | Ms. Nwabugwu Amarachi Augusta | Nigeria | M.A International Relations | SIRP, MG University |
| 4 | Mr. Mayiek Aldrine Kimtai | Kenya | M.A. Economics | K.N. Raj Centre, M.G University |
| 5 | Ms. Sushma Khaiju | Nepal | M.Sc (Disability Studies and Rehabilitation Sciences | School of Behavioural Sciences, M.G University |
| 6 | Ms. Nyaribo Nyangara Knight | Kenya | M.Sc. Computer Science, | School of Computer Sciences, M.G. University |

The schools and centres of the university also receive international students as part of their bachelor, master and Ph.D programmes. The university also receives international post doctoral fellows under prestigious programmes like Raman-Charpark fellowship.

### 5.1.9 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes. The various Schools provide the students with the necessary help in obtaining educational loan from banks and other institutions, as and when necessary. Schools make the documentation and certification process easy and accessible to students who approach for financial help.

### 5.1.10 What types of support services are available for?

➢ **Overseas students**

- University has rented two buildings with all infrastructure for the accommodation of international students located close to the campus.

- The university has initiated measures to construct an international hostel.

- University Centre for International Co-operation (UCIC) is working towards enhancing the induction of foreign students and to take care of the special welfare requirements of the international students in association with ICCR.

- The UCIC organizes cultural programmes to make the stay of the overseas students more meaningful. Cultural exchange programmes and student familiarization sessions are also organized with the help of faculty members.

- The UCIC regularly organizes programmes in association with the Kerala State Higher Education Council of Kerala for the overseas students.

➢ **Physically challenged / differently-abled students**

The university follows the reservation norms for admissions to students joining the various programmes. Upholding the spirit of inclusive education, for the benefit of the physically-challenged, aids like ramps and wheel chairs are provided in all schools for the free mobility of the physically-challenged. New buildings are mandated to be physically challenged-friendly. The university has availed Rs. 1 Crore under the RUSA scheme for the construction of ramps and disabled friendly toilets in all buildings of the University. The classes for differently-abled students are arranged in the ground floor to the maximum extent possible. The University has also provided wheel chairs in all the buildings.

University has conducted a comprehensive access audit to evaluate the state of accessibility in the campus. All the schools and offices in the university are connected with well-maintained roads. University has also initiated steps to

procure an eco-friendly battery operated vehicle with wheel chair access along with preferential parking facilities to ensure barrier free transportation in the campus. Electronic Lab for visually challenged has been set up in the library during October 2015 with an objective to provide reading facilities to blind and low vision library users.

As per U.O No. 4308/P&D -1/3/2016/Admn dated 01/08/2016, the University has issued an order formulating a comprehensive policy for addressing disability issues. The main components of the order are as follows:

- To engage the service of a barrier free design expert and architect to audit the disabled-friendliness of all physical segments of the university.

- To ensure disabled-friendly features like ramp (of a gradient not greater than 18-20 degrees), lifts (wide enough for wheel chair, and with Braille control switch panel and audition), special assistive fixtures and fitting (like handrails and grab bars alongside the side walk of steps and staircases), and disabled - friendly washrooms in all future construction projects.

- To allow a grace period of three months for M.Phil and six months for Ph.D students who are physically challenged in the submission of dissertations.

- To ensure at least one terminal in the computer workstation (of all departments, centres) with special assistive technologies, preferably open source, for physically challenged students.

- To ensure the websites of Mahatma Gandhi University and its statutory teaching departments and the affiliating colleges incorporate features friendly to the visually challenged (including colour contrast, variable font size and audition).

- To create a special fund to handle all income and expenditure relating to addressing disability issues of Mahatma Gandhi University including constituent colleges. Besides central and state funding and UGC special assistance, funds are also received from MP/MLA development plan assistance for constituencies, and rules permitting, from the private sector companies (who may fulfil it as part of corporate social responsibility).

- To highlight the aspect of disabled - friendliness in all notifications for admission and appointment released by the university with the statement "MGU is proactive to the needs of the physically challenged" is inserted.

- The university has a unique School-School of Behavioural Sciences to impart training and to coordinate research activities in disability, rehabilitation and mental health. The Department of Indian Sign Language was started in the year 2015 to train young professionals who can interpret and communicate in Indian Sign Language. The students

undergoing this course participate in various official programmes and translate the programme in Indian Sign Language.

- The University took the lead to establish an Inter University Centre for Disability Studies as well as an Institute of Research in Learning Disability which are pioneering centres of advanced learning and intervention in the area of disability studies. The main focus of the initiatives is to provide individualized and holistic educational support mechanisms for managing disabilities including learning disability.

**The objectives of the initiatives include:**

- To develop higher level professionals in the field of disability studies.

- To develop a holistic approach for the total rehabilitation of the disabled.

- To establish advanced facilities and promote research and extension activities in major areas of disabilities.

- To impart training to personnel of NGOs, parent groups, students, teachers, special educators and rehabilitation professionals.

- To address the physical, psychological and socio-cultural issues related to disability based on interdisciplinary studies for evolving sustainable solutions.

- To strengthen the regular school system to facilitate inclusive education.

➢ **The University also took the lead to establish DREAMS** (Disability Rehabilitation Early Assessment and Management Services), an extension activity with the objective of providing early identification and intervention services to all types of disabilities under one roof. The initiative provided support services to 764 referral child clients, from medical institutions through DREAMS, during the assessment period.

➢ **SC/ST, OBC and economically weaker sections**

Mandatory reservation for the SC, ST, OBC and economically weaker sections are ensured as per government guidelines. Special allotment drive for admissions for the above sections is another major facet. Education is provided free of cost to all SC, ST and non creamy layer OBC students. The faculty helps students in the SC, ST and OBC non creamy layer and other disadvantaged groups to identify and avail various schemes and scholarships. The university has an SC/ST Cell for the welfare of the weaker sections. University offers academic, financial and moral support to the needy. Most of the departments conduct remedial coaching classes to uplift them academically. Volunteer support mechanism prevails in all Schools for the needy.

> **Students participating in various competitions/conferences in India and abroad**

Students are encouraged to participate in international and national conferences, workshops, seminars, and the university provides all possible support to ensure their participations. They are encouraged to participate, present papers and compete for the best paper awards in annual events like Indian Science Congress, Kerala Science Congress, Indian History Congress, South Indian History Congress, Association for Third World Studies and other national and international seminars and workshops within the country. The applications submitted by the students for foreign travel are forwarded to funding agencies on a fast track basis. Many PhD students of the university go abroad by making use of travel grants provided by DST and CSIR. Students of the University very actively participate in the Inter University; inter state and national level sports competitions. University provides them the required support. Scholarships are given to 130 students for their excellence in sports and games.

> **Health Centre, Health Insurance etc.**

University has a well equipped Health Centre in the campus. A resident medical officer's service is available to the students and staff members. It also conducts regular health checkups to diagnose and prevent life style diseases. Free medical aid, observation facilities, health awareness camps and counseling, preventive medical camps, blood group identification, eye check up etc are conducted on a regular basis. Health insurance is offered to the students. Gymnasium for men and women and also a stadium are available for the students. Yoga classes are conducted for encouraging a healthy life style of the student community by the university.

> **Skill development (spoken English, computer literacy, etc.)**

For the soft skill development of the students, the university is providing classes in computer literacy and spoken English. All schools have well equipped computer lab with internet connection to cater to the needs of the students. Training programmes are organised in specialized software. University facilitated the service of a Language Lab to enhance the skill in English and French. Centre for English Language and Communication Skills (CELCS) offers short term courses in Communicative English.

A course on 'Communication and Academic Writing' has been made part of the core course of the MA Programme in the School of International Relations and Politics. Also, the School of Management and Business Studies offers a short term skill training programme every four months, for a period of three days to boost the confidence level among students.

> **Additional Skill Acquisition Program (ASAP)**

Courses like 3D animation and computer accounting are offered to under graduate students. Twenty five colleges have registered with the university for ASAP integration.

> **Performance enhancement for slow learners**

For the performance enhancement of slow learners the following measures were taken:

- Short review at the beginning of each class.

- Extra coaching classes twice a week.

- Clearly articulating the conceptual content of each topic.

- Bilingual teaching efforts.

> **Exposure of students to other institutions of higher learning/ corporates/business houses, etc.**

**Collaboration with National Institutes**

> Vikram Sarabhai Space Centre (VSSC), Trivandrum, India

> Rubber Technology Centre, Indian Institute of Technology, Kharagpur, India - 721 302

> Indian Institute of Technology, Chennai

> Polymer Chemistry Division, National Chemical Laboratory, Pune, India

> Indian Institute of Chemical Technology, Hyderabad, India

> BARC, Mumbai

> Laboratory of Condensed Matter Physics, University of Rajasthan, Jaipur, India

> Department of Civil Engineering, Indian Institute of Technology, New Delhi, India

> Department of Physics, University of Mysore, Mysore

> Jawaharlal Nehru University, New Delhi.

> Indian Institute of Science, Bangalore

> IICT, Hyderabad

> Central Leather Research Institute, Chennai.

> Centre for Development Studies, Thiruvananthapuram.

> Indian Institute of Technology (IIT), Jodhpur.

> Kerala Institute of Local Administration (KILA), Thiruvananthapuram.

➢State Institute of Rural Development (SIRD), Thiruvananthapuram.

## Collaboration with International Institutes

➢ Macromolecular Science & Engineering Research Centre, Laval University, Quebec, Canada GIK7P4. (Prof. Prud 'homme)

➢ Abt. Kunststoffee/Verbundwerkstoffe, TU Hamburg-Harburg, AB 5-09, Denickestraβe 15, D-21073 Hamburg, Germany (Prof. V. Alstädt)

➢ Technische Universitat Chemnitz, Polymerchemiie, Straβe der Nationen 62, 0911 Chemnitz, Germany (Prof. Steffan Spange)

➢ Directeur de ENSCCF, 24 avenue des Lais, BP - 187 - 63174 Aubiere, Cedex, France (Prof. Jacques Lacoste)

➢ Laboratory of Macromolecular Structure Chemistry, Department of Chemistry, Katholieke University of Levuen, Belgium (Prof. Gabriel Groninckx)

➢ Martin-Luther-Universitat Halle Witenberg, FB Physik, Fridemann-Bach Platz 6, 06108, Halle, Germany (Prof. Manfred Knorgen)

➢ Assoc. Prof. of Polymer Physics, University of Chemical Technology Metallurgy, 8, Kilment Ohridski Blvd., 1756 Sofia, Bulgaria (Dr. Christo Betchev)

➢ Institute of Material Science & Technology, Martin-Luther-Universitat, Halle-Wittenberg, Postanschrift D-06099 Halle, Haussanschrift Geusaer Straβe, Germany (Prof. (Dr.) Ing. Hans-Joachim Radusch)

➢ Institute of Composite Materials Ltd., University of Kaiserslautern, Kaiserslautern, Germany (Prof.(Dr.) Jozef Karger Kocsis)

➢ Institute of Polymer Research, Hohe Strasse 6, D- 01069 Dresden, Germany (Prof. Manfred, Stamm, Dr. Jurgen Pionteck, Dr. Petra Poetschke Dr. Cornelia Bellman)

➢ CNRS Lab, Laboratoire de Recherche sur les, Polymers, UMR 7581-CNRS, 2-8 rue Henri Dunant, 94320 Thiais, Paris, France (Prof.(Dr.) Francoise Laupretre)

➢ Institut des Matériaux de Rouen, faculté des sciences, BP12, 76801 Saint etienne du rouvray, responsable de LECAP, équipe de l'UMR6522 Polymères-Biopolymères-Membrane, France (Prof. Jean Marc Saiter)

➢ Laboratoire L2PIC, University of South Brittany, Rue Saint Maude, Lorient Cedex,  France (Prof. Yves Grohens)

- Polymers Nanotextures & Nanocomposites, Centre de Recherche sur la Matiere Divisee1B, rue de la Ferollerie, 45071 Orleans Cedex 2, France (Dr. Christophe Sinturel)

- Beijing University of Chemical Technology International Exchanges and Cooperation Dept, Add. No.15 Beisanhuan East Road, Beijing 100029,P.R.China (Dr. Yang Weimin)

- Thermal lab, UIT, University of Paris 12, Creteil Campus, France( Prof. Dr.Yves Candau and Prof. Dr. Abdel Boudenne)

- Department of Chemical Engineering, CIT, Katholieke University of Levuen, Belgium (Prof. Paula Mouldnaers)

- CNRS, Strasbourg, France, (Prof. Dr. Rene Muller)

- Department of Chemsitry, Walter Sisulu University, Mthatha, South Africa. (Dr Oluwatobi S Oluwafemi).

- Department of Chemical Engineering, Katholieke University of Leuven, Belgium (Prof.Dr. Paula Moldnaers)

- Jozef Stefan institute, Ljubljana, Slovenia (Prof. Dr. Uros Celvar)

- University Technology Mara (UiTM), Malaysia (Dr. Chan Chin Han)

- Institute for Polymer Research Dresden (IPF), Dresden, Germany (Prof. Dr. Manfred Stamm and Dr. Jurgen Pionteck)

- The Institute of Chindian studies, Jinan University, China

- Caltech University, USA

- POSTECH, South Korea

- Frankfurt University, Germany

- Brown, Duke and Plymouth State Universities of USA under Obama Singh Programme

- the Institute of Political Studies (IEP) of Rennes, France

- Sciences Po Bordeaux, France.

- The Technical University of Denmark.

- Ben-Gurion University of the Negev, Israel.

The University has academic collaboration with research institutions of international reputation such as the Max Planck Institute of Technology, Germany, Brown University, USA, University of Nantes, University of Strasbourg, University of Nancy, University of Paris Twelve, University of South Brittany of France, California Institute of Technology, USA, University of Toronto, Canada, Catholic University, Belgium, Heidelberg University, Germany, and the Institute of Political Studies, Rennes, France, University of Wisconsin-Parkside, Duke University and Plymouth State University of USA.

Students are encouraged to participate in events conducted by such institutions. They are also allowed to conduct a part of their work for M Sc and M.Phil dissertations in these institutions. Moreover, Ph.D students are also allowed to carry out their experiments in collaboration with the above mentioned institutions. Many Ph.D students have joint publications co-authored by experts from other institutes in India and abroad.

Mahatma Gandhi University has many forms of relationships with different types of organizations, for a variety of reasons that includes:

- The joint development of courses
- Joint research proposals
- Exchange of Faculty members
- Exchange of Students
- Joint Publications in refereed journals
- Joint organising of conferences and workshops
- Joint editing of books by international publishers
- Joint PhD programmes
- To create sustainable strategic alliances

**MoU Signed with external organisations and effectively implemented:  46**

| School | No. of MoUs | Organisation with which MoU is signed |
|---|---|---|
| School of Chemical Sciences | 8 | <ul><li>University of Alberta</li><li>Deakin University, Australia</li><li>Almaty Institute of Power Engineering and Telecommunications, Kazakhstan</li><li>Louisiana Tech University</li><li>Universiti Technologi Mara, Malaysia</li><li>Siberian  federal University Russian federation</li><li> KANSAS STATE University,  USA (Proposed)</li><li>Alathur Pharmaceutical Manufacturers  Association, Kancheepuram</li></ul> |
| School of Behavioural Sciences | 5 | <ul><li>St. John the Baptist College of Special Education, Changanacherry</li><li>Nirmala Sadan Training College for Special Education, Muvattupuzha</li><li>Snehasadan College of Special</li></ul> |

| | | |
|---|---|---|
| | | • Education, Angamaly<br>• Janey College of Allied Health, Ernakulam<br>• St.John of God College Special Education, Pampady |
| School of Environmental Sciences | 2 | • Bhabha Atomic Research Centre, Mumbai<br>• Brown University, USA. |
| Advanced Centre of Environmental Studies and Sustainable Development | 5 | • Technical University, Denmark.<br>• Ben-Gurion University of the Negev, Israel.<br>• Plymouth State University, USA.<br>• Duke University, USA.<br>• IIT, Jodhpur. |
| School of International Relations & Politics | 3 | • Institute of Political Studies, Rennes, France<br>• The Sciences Bordeaux(IEP), France<br>• Institute of Chindian Studies, Jinan University, China |
| School of Management & Business Studies | 1 | • Management Development Institute, Gurgaon ( International Summer University Programmes 2016) |
| School of Pure and Applied Physics | 2 | • Inter-University Centre for Astronomy and Astrophysics, Pune<br>• SKA-India Consortium comprising of NCRA-TIFR; RRI, Bangalore; IUCAA, Pune; IISc, Bangalore; IIT, Kanpur; IISER, Mohali; SINP, Kolkata; Presidency University, Kolkata, St. Thomas College, Kozhencherry, Jamia Millia Islamia, New Delhi; PRL Ahmedabad; IIT, Indore; IIAp, Bangalore; IIST, Thiruvananthapuram; ISI Kolkata. |
| | 20 | • Kingmongkuts University of Technology, Thailand<br>• University of Lorrane, France<br>• The Ecole National Superior des Minesed Albi-Carmaux<br>• Iran National Institute of Materials and Energy<br>• The Center for nanocellulose future composite, INHA University, South |

| International and Inter University Center for Nano Science and Nanotechnology (IUCNN) | | Korea |
|---|---|---|
| | | • Brusa University, Turkey |
| | | • Warsaw University of Technology, Poland |
| | | • MRF LTD.Chennai |
| | | • VIT University Vellore, Tamilnadu |
| | | • Walter Sisulu University, South Africa |
| | | • Department of mechanical Engineering, Rajiv Gandhi Institute of Technology, Kottayam |
| | | • University of Rouen |
| | | • University of Pretoria, South Africa |
| | | • Indian Institute of Tropical Meteorology, Pune |
| | | • Almaty Institute of Power Engineering and Telecommunication, Kazakhstan |
| | | • Chagwon National University, Korea |
| | | • Deakin University, Geolong, Australia |
| | | • Laboratoire des Sciences Analytiques CNRS, Universite Claude Bernard, Lyon, France |
| | | • Alathur Pharmaceutical Manufacturers Association, Alathur |
| | | • Universiti Teknologi MARA, Malaysia |

➢ **Publication of student magazines**

• University Student's magazine is published every year by the Department Student's Union (DSU). Apart from that, most of the schools have their own magazines and newsletters. For example, *Manasu and Kunchika* published by the Department of Lifelong Learning and Extension. *Hue* is the magazine of the School of Tourism Studies.

• School of Computer Sciences has been publishing an annual technical publication titled "IT Glimpse" with technical articles and papers compiled from students, research scholars, faculty and alumni since 1999.The "IT Glimpse" is released in both printed and online versions during interface meetings.

**5.1.11. Does the university provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defence Services, NET/SET and any other competitive examinations? If yes, what is the outcome?**

Yes. Various departments of the university conduct coaching classes for NET/SET etc. Apart from that, university has an Employment Information and Guidance Bureau which is providing coaching for the above mentioned courses as and when required. The Bureau offers special programs to students from the under privileged sections of the society. The Department of Life Long Learning and Extension has arranged a series of coaching classes for students appearing for various competitive examinations. The University also conducts UGC sponsored coaching programme named 'Entry into service'.

**5.1.12 Mention the policies of the University for enhancing student participation in sports and extracurricular activities through strategies / schemes such as**

➢ **Additional academic support and academic flexibility in examinations:**

University has specific strategies for the overall welfare of the students.

The university has taken innovative measures for supporting students to participate in sports and other extra-curricular activities. Flexibility is shown in computing credit of attendance and scheduling examinations, to the extent possible within the limit of existing norms for participation in sports and games. Grace marks are awarded to students for their achievement in sports to a maximum of 25%. Apart from this, special examinations are conducted for students who miss the university examinations while representing the university team and state team in the AIIU/national competitions.

The School of Physical Education and sports Science provides additional scholarships to the meritorious students, viz: Annual Sports Scholarship of Rs 3, 50, 000/- is distributed annually to the top150 sportspersons and Merit Award of Rs 7, 00,000/- is distributed annually as Merit Award for the Medal Winners in AIIU competitions at the rate of Rs. 10, 000 for Gold, Rs. 7,500 for Silver and Rs. 5,000/- for Bronze.

➢ **Special dietary requirements, sports uniform and materials:**

The university through School of Physical Education provides sports uniform and materials to all sports team members. Special dietary requirements are also provided to the students following a scientifically customized menu of the mess periodically and by giving an additional amount of Rs. 150/- per diem for students attending the university coaching camps.

Mahatma Gandhi University has a Stadium, situated on the campus, and is catering to the requirements of its sports persons. The Physical Education Department has setup a Fitness Center equipped with modern facilities. The

Basketball Court, Badminton Court, Football Court and Cricket pitch are the facilities available in the stadium.

➢ **Any other (Please specify):**

Mahatma Gandhi University Union organizes Youth festival annually to promote art and cultural talents among the students. It also aims at encouraging camaraderie and fellowship among young artists by giving them an opportunity to display their talents on a common platform. The date and venue of the festival are fixed by the Union in consultation with the Vice-Chancellor. There is a Steering cum Appellate Committee (SAC) to supervise and control the conduct of the programme.

Mahatma Gandhi University awards Grace Marks to the winners of Inter collegiate Youth Festival to encourage students who are proficient in cultural activities. Later, University extended the benefit to the winners of South Zone and National Inter University Youth Festivals too.

The Department of Life Long Learning and Extension is offering Yoga sessions and counseling for the students. The Department also organizes workshops/orientation programmes for teachers and students on various topics such as women counseling, campaign against ragging, career guidance, student magazine editing, ill effects of alcoholism etc.

The university also encourages the students' participation in NSS, NCC as well as those interested in business incubation and entrepreneurship, through grace marks, attendance make over and certification. Mahatma Gandhi University National Service Scheme has 205 units and more than 20,000 volunteers from the Arts and Science colleges of Kottayam, Ernakulam, Pathanamthitta, Idukki, Alappuzha Districts and from Mahatma Gandhi University Campus. The contributions by NSS include:

- Socio economic progress in 205 adopted villages under Unnat Bharat Abhiyan Campus Community partnership.

- Swachh Bharat Abhiyan programme covering all public utilities including municipalities, panchayats, railway stations, bus stations, Medical College, Kottayam, and Government hospitals in Kottayam, Ernakulam, Pathanamthitta and Idukki.

- E-Jalakam Training -Training to all first year undergraduate students of the university and orientation on social service named 'Vivaranidhi'.

- Digital India -National e-governance Division (NEGD) selected MG University NSS unit as the pilot university NSS to implement the scheme by empowering the needy.

- Organic farming was familiarised in 100 colleges and 50 model farms were established which resulted in large scale organic agricultural production. The beneficiaries include 2 lakh students and families.

- **Home for the Homeless Project-** Mahatma Gandhi University National Service Scheme constructed and donated 241 houses for the marginalized by mobilizing approximately Rs.3 crores.

Many educational and personality development programmes in the areas of environment conservation, health, nutrition and family welfare, skill development, Home for the Homeless, formation of village libraries, monsoon umbrella manufacturing, E-Gramam projects, manufacturing of Nirmal Soap, lotions, eco-friendly bags, promotion of computer literacy etc. were undertaken by the NSS.

The National Service Scheme of Mahatma Gandhi University has received many laurels from the central and state governments. The university has emerged as the lone Centre of higher learning in India to receive the coveted Indira Gandhi National Awards ( twice for Programme Coordinator and once for the Best University NSS), twice in a row for the outstanding performance. In 2012-2013, the University NSS secured Indira Gandhi National appreciation award and in 2013-14 it secured Indira Gandhi National Award for the Best University and Best NSS Co-ordinator. During the year 2014-15, two NSS volunteers - Manoj George and Aishwarya Lakshmi bagged the Indira Gandhi National Service Scheme award for the best volunteers. All the four awards were presented by the Honourable President of India at a formal function held at the Durbar Hall of the Rashtrapathibhavan, New Delhi.

*The percentage of Grace Marks for enhancing student's participation in sports and extracurricular activities are given below.*

| Sl. No. | Items to which Grace Marks shall be awarded | Percentage of Grace Marks |
|---|---|---|
| 1. | State level events in all Sports/Games/ Relay events (Inter-Districts competition – Individual/team/games event. Certificates from the State/District Association concerned) I Place II Place III Place | 5% 4% 3% |
| 2. | Inter Collegiate events (Individual/team events) I Place II Place III Place | 7% 5% 3% |
| 3. | Representing the State and Winning in Approved National Competition (Inter-State) I Place II Place III Place Representation | 12% 10% 7% 5% |
| 4. | Inter University South Zone/South West Zone I Place II Place III Place Participation Non participation | 10% 9% 8% 7% 6% |
| 5. | All India Inter-University Competition (Indian Universities/ Combined University team I Place II Place III Place Representation/participation in Indian Combined University Team | 17% 14% 12% 10% |

| | Non-Participation | 6% |
|------|-------------------|----|
| 6. | Representing India in approved World competitions (Asian Games/Afro-Asian/Common Wealth/World University Games/Pre-Olympics/Olympics/ Universiad –Junior, Youth, Senior tournaments) | 25% |
| 7. | Blind students securing I/II/III places in Sports/Cultural/Youth Festival activities conducted by Kerala Federation of the Blind at College/University/Inter-University level | 5% |
| 8. | Inter Collegiate Youth Festival <br><br> (Individual & Group events) <br><br> I   Place/A Grade/Best Actor/Actress <br> II  Place <br> III Place <br><br> (Limited to 5%) | <br><br><br><br> 5% <br> 4% <br> 3% |
| 9. | South Zone Inter University Youth Festival conducted by AIU (Individual and Team events) <br><br> I Place <br> II Place <br> III Place <br><br> (Limited to 6%) | <br><br> 6% <br> 5% <br> 4% |
| 10. | National Level Youth Festival <br><br> (Individual and Team events) <br> I Place <br> II Place <br> III Place <br> Limited to 10 %) <br><br> Accompanists of artists in Youth Festivals (Zonal and National Level only) will be given grace marks as stipulated under UO read as paper (4) above. | <br><br><br> 10% <br> 7% <br> 5% |
| 11. | Deaf and Dumb candidates with disability of 40% or above / Hearing impaired candidate with disability of 70% or above / Mentally Retarded candidates (Irrespective of the degree of disability) <br><br> (Medical Certificates from Medical Board is required) | 25% |

| 12. | NSS volunteers | |
| | NSS certificate holders | 2% |
| | Attending National Camp with attendance certificates (NIC, National Youth Festival, Mega Summer Camp. Adventure Camp, Pre-RD Camp etc. with at least 5 days duration) | 3% |
| | NSS State awardees and National Awardees | |
| | Republic Day Camp (This camp should be of at least one month duration) | 3% |
| | | 5% |
| | NSS Volunteers nominated by State | |
| | NSS Cell who have attended International Programmes | |
| | (An NSS Volunteer is eligible to claim grace mark only from any one of the above 5 categories) | 8% |
| 13. | NCC cadets | |
| | Attending National Integration Camp | 3% |
| | Attending Republic Day Camp / Parade | 7% |
| | Basic Leadership Camp (TSC) / NS camp / Vayu Sainik / Independence Day Camp (Sports and Games at Delhi) | 5% |
| | Certificate holders 'C' Certificate | 4% |
| | 'B' Certificate | 3% |
| | NCC Weightage/Equivalency Certificate issued | 3% |
| | National level and other Centrally organized camps/YEP (Limited to 10%) | 8% |
| 14 | Entrepreneurship and Business Incubation | | |

| | Stages | Grace Marks | Attendance (Max.20%) |
|---|---|---|---|
| 1 | Ideation Stage | 1% | 5% |
| 2 | Teaming and Company Formation | 1% | 5% |
| 3A or 3B | Prototype (Working Model) for Technology based firms | 2% | 10% |
| | Business Service of service based firms | 2% | 10% |

### 5.1.13 Does the university have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare them for interview, and develop entrepreneurship skills?

Yes.The University has an Employment Information and Guidance Bureau functioning on the campus.

The objectives of the bureau are:

➢ To collect and disseminate career information.

➢ To highlight opportunities for higher studies.

➢ To disseminate information on scholarship, fellowships and financial assistance available in India and abroad.

➢ To render vocational guidance to students.

➢ To assist students for securing employment.

➢ To give information on various competitive examinations.

➢ To conduct career guidance classes, seminars and career talks and give guidance on group discussions to equip students for better performance and personality development.

➢ To register post graduate degree holders in the general stream and professional degree holders for employment assistance.

➢ To prepare employment information bulletin to help students in their educational and vocational planning.

The Bureau imparts training to students in communication skills and soft skill development besides providing information on job opportunities. The functions of the Guidance Bureau are monitored by an Advisory Committee under the Chairmanship of the Vice Chancellor. The Bureau is publishing a fortnightly Bulletin on job opportunities. It contains information about the various vacancies reported by the Staff Selection Commission, Union Public Service Commission, Kerala Public Service Commission and other recruitments boards.

The Guidance Bureau is giving individual guidance to candidates to choose professional courses and jobs by assessing the talents, interest, skill, aptitude, family background etc. Another objective of the Bureau is to equip the candidates to face interviews, group discussions. The Bureau also conducts coaching classes for the competitive examinations at the state and national levels which include UGC/CSIR NET examinations, various competitive examinations conducted by the Public Service Commission, bank tests, Staff Selection Commission tests, State Eligibility Test etc.  Coaching classes are rendered to prepare the students belonging to minority, SC & ST communities for the UGC/CSIR NET examinations (with the financial assistance of the

UGC). The Bureau conducts one day career seminar in colleges to create awareness among the students on career opportunities and soft skill development. Seminars focus mainly on career trends in India and abroad, opportunities for higher studies, how to face an interview and also on personality development.

The university is committed to instilling entrepreneurship among students for which it has adopted a unique strategy to provide impetus to the scheme of Government of Kerala. The university has decided to award grace marks and attendance leverage to the students engaged in entrepreneurial tasks while studying. The student opting for the incentives under the scheme has to register in a Technology Business Incubator (TBI) concerned and the certification of the TBI in-charge along with the HOD/Director/Principal/Head of the institution shall forward to the Registrar of the university for Grace marks/attendance.

➢ **Placement and Training Cell:**

With a view to improving the employability of the students of Mahatma Gandhi University and also to provide an opportunity for placements, a Placement and Training Cell is instituted in Mahatma Gandhi University. The main objective of the Placement Cell at the University level is to work towards reducing the skill gap in students thus enabling them for immediate placements after their respective courses. The major objectives of this Placement and Training Cell are:

- ✓ Guiding students for placement in credible organizations.
- ✓ Conducting seminars, group discussions, and mock interviews as a part of career guidance and personality development.
- ✓ Coordinating the efforts of the students of the various colleges and departments in arranging domain specific training for them.
- ✓ Acting as an information centre for students in job opportunities and competitive examinations.

The major tasks thus enlisted to be performed by this Cell include:

1. Providing training to students (EMPLOYMENT READINESS FOUNDATION PROGRAMME)

2. Organising Recruitment drives in the campus.

**5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last six years).**

| Name of the department | Name of Company (2010-2016) | Number of students recruited |
|---|---|---|
| School of Computer Sciences | Infosys(off-campus selection), Bangalore Polus Software, Pvt. Ltd. Technopark ,Trivandrum Suntech Solutions, Technopark, Trivandrum<br><br>Hages Business Solutions, Technopark, Trivandrum | 17 |
| School of Letters | Doordarsan, Malayala Manorama, Mathrubhumi, Deshabhimani and Mangalam | 15 |
| School of Management and Business Studies | H R Johnson Inc.,Ernst & Young., KPMG<br><br>MRF Tyres, Invest Net., Flytext. South Indian Bank, Muthoot Finance. Ltd<br><br>WIPRO, ITC Ltd.,  XEROX, BILT<br><br>R M Education,, Catholic Syrian Bank,<br><br>Williams Lea., Encare Pharmaceuticals, pvt. Ltd., Sundaram Fastners Ltd., Eureka Forbes, Deloitte.,E & Y | 221 |
| School of Tourism Studies | Marvel Tours, Thomas Cook (I) Pvt Ltd.Southern Trails India Pvt. Ltd,  Concord Exotic Voyages, TUI Travel PLC, Keralatravels.com, Yoko Tours, Kerala Holidays.com,  Le Passage To India, PVR Cinemas,Phoenix Holidays, Kochi,Gradiaso Events & Entertainments Pvt. Ltd, Fair Mount Holidays. | 77 |
| School of Communication & Journalism | Mathrubhumi, Manorama, Aisanet , Reporter TV, Kairali Times Of India, Deccan chronicle, Surya TV | 198 |

**5.1.15 Does the university have a registered Alumni Association? If yes, what are its activities and contributions to the development of the university?**

Yes. All Schools have their own alumni association. They have contributed to the development of the Schools and continue to be part of the academic stream. Contributions of Alumni Associations are varied viz: academic support, updating syllabi, enabling to keep abreast of the latest technologies, student mentoring, general body meetings, distribution of prizes to students for outstanding contribution in the departments, family get-togethers, honoring of teachers, technical seminars, special talks, cultural meets, placement support, internship support and philanthropy.

For example, the alumni of Computer Science organizes INTERFACE, an annual tech-fest, which will invariably include a technical seminar, All India Computing Competitions, cultural shows, publication of technical magazine as well as honouring of bright students. The School of Bioscience Alumni Association

conducts P.C. Raveendran Memorial Lecture to commemorate the late Dr. P. C. Raveendran, former faculty of the school. School of Environmental Sciences Alumni association conducts annual Dr. R. Satheesh Memorial Seminar to commemorate the late Dr. R. Satheesh, faculty of the school.The alumni of School of Letters actively contribute to the lectures in memory of Prof. G. Sankara Pillai, Prof. R Narendra Prasad and D. Vinayachandran, who were not only former faculty members of the School but also prominent men of letters.

The alumni of Department of Lifelong Learning and Extension have started several counselling and yoga centers for the benefit of the students as well as the general public. The alumni have also served as brand ambassadors to propagate organic farming and Yoga in campuses and in adopted villages. The alumni Association of the Yogic Sciences have adopted Idamalakkudy tribal panchayat for enhancing the awareness level of the 3000 odd inhabitants in 26 remote deep forest hamlets by setting up a Library there. Department of Life Long Learning and Extension, depends on the support of the Alumni for the conduct of programmes like Swachh Bharat Abhiyan and Unnat Bharat Abhiyan.

**Prominent Alumni of Mahatma Gandhi University:**

| School of Behavioural Sciences | | |
|---|---|---|
| Sl No. | Name | Current Position |
| 1. | Dr. Babu George | Director, Child Development Centre, Thiruvananthapuram |
| 2. | Dr.Elsheba Mathew | Associate Professor, Pushpagiri Medical college, Thiruvalla |
| 3. | Sr.Gilbert | Secretary, Trained Nurses Association of India, |
| 4. | Dr.Roshan Bijlee | Director, Composite Regional Centre, National Institute of Empowerment of Persons with Multiple Disabilities, Kozhikode |
| 5. | Dr. Sr. Glory | Principal, Nirmala Sadan College of Special Education, Muvattupuzha. |
| 6. | Dr. T. U. Sukumaran | Professor, Pushpagiri Medical college, Thiruvalla |
| 7. | Dr. Savida | Superintendent, Institute of Child Health, Govt. Medical College, Kottayam. |
| 8. | Dr. Valsamma Joseph | Principal, Govt. College of Nursing, Kottayam |
| 9. | Dr. Sreedevi T. R | Associate Professor, Govt. College of Nursing, Kottayam |
| School of Biosciences | | |
| 10. | Dr. Sunilkumar Puthenpurackal Narayanan . | Institute of Biophysics and Physical Biochemistry and Centre of Magnetic Resonance in Chemistry and Biomedicine (CMRCB), University of |

| | | Regensburg, 93040 Regensburg, Germany |
|---|---|---|
| 11. | Dr. C. Kesavachandran | Principal Scientist, Indian Institute of Toxicology Research, Lucknow-226001, India ckchandran@iitr.res.in |
| 12. | Dr. Sudarslal S. | Associate Professor at the School of Biotechnology, AmrithaVidhyapeedum University Amrithapuri, Kollam, sudarsla@am.amrita.edu |
| 13. | Dr. Krishnan, Manoj | Assistant Professor, Nus and Duke center, Singapore, : manoj.krishnan@duke-nus.edu.sg |
| 14. | Dr Jacob Biboy | The Centre for Bacterial Cell Biology, Newcastle University, United Kingdom jacob.biboy@ncl.ac.uk |
| 15. | Aneeshkumar. A.G | Faculty, Molecular Genetics Laboratory, National Institute of Immunology, New Delhi, aneesh@nii.ac.in |
| 16. | Dr. Srejith | Post-doctoral fellow, Diabetes Research Unit New York university medical center, New York city- New York 10016 |
| 17. | Dr. Rajendran | Associate Professor, Division of biochemistry and molecular biology,Central university of Kerala, Kasargod, Mobile No. 9061877113 |
| 18. | Dr. Jolly Paul | Regulatory Affairs Specialist, Vifore Phrma Zurich, Switzerland |
| 19. | Dr.Arun A Rauf | Assistant Professor, University of Kerala, Dept. of Biochemistry, Trivandrum Mobile 9447290954 |
| **School of Chemical Sciences** | | |
| 20. | PK Biju | Member of Parliament |
| 21. | Dr Suresh C Pillai | Senior R&D Manager in CREST and is responsible for managing the semiconductor nanotechnology group. |
| 22. | Prof. Dr. Aji P Mathew | Associate Professor in Materials Chemistry, Stockholm University, Sweden, aji.mathew@mmk.su.se |
| 23. | Prof. Dr. Z. Oommen, | Professor, Dept of Criminal Justice, Albany State University, Albany, USA. |
| 24. | Dr. Kuruvilla Joseph | Professor of Chemistry and Dean, IIST, Trivandrum |

| 25. | Dr. Jyothi T Varkey | Senior Scientist, BASF, USA |
|---|---|---|
| 26. | Dr. Jayamol George | Chief Patent Officer, SABIC Bangalore |
| 27. | Prof. Dr. Unnikrishnan G | Department of Chemistry, NIT Calicut |
| 28. | Dr. Jacob John | Director, Laboratories, University of Massachusetts, USA |
| 29. | Dr. Maya John | Senior Scientist, CSIR, Port Elizabeth, South Africa |
| 30. | Dr .K.Sreekumar | Professor, CUSAT |
| 31. | Dr Benny K George | Group  Director, USSC |
| 32. | Dr Roy Joseph | Scientist-G,SCTIMST |
| 33. | Dr Lissy Mol | Scientist-E,SCTIMST |
| 34. | Dr C.P Vinod | Scientist F, NCL, PUNE |
| 35. | Dr Subin Jacob | Professor, JNCSR |
| 36. | Dr Suresh C H | Principal Scientist and Head, Inorganic and Theoretical Chemistry NIIST, Trivandrum |
| 37. | Dr. Siby Varghese | Joint Director, RRII, Kottayam, Kerala |
| 38. | Dr. Lizy  Mol PP | Senior Scientist, SCTIMST, Trivandrum |
| 39. | Dr. Aby Santhosh Aprem | Deputy Vice president-HLL Trivandrum |
| 40. | Dr. Rani Mol Stephen | Assistant Professor, Department of Chemistry, Devagiri College, Kozhikode |
| 41. | Dr. Johnson | Kodak , Senior Scientist, Rochester, USA |
| 42. | *Dr. Jyotishkumar* P | Expert Researcher, King Mongkut's University, Bangkok, Thailand |
| 43. | Pradeep Kumar | Department of chemistry, IIT Bombay. |
| 44. | Dr. Alex Koshy | Department of Chemistry and Physics Chicago State University, Chicago, Illinois, United States. |
| 45. | Dr. Beena Mathew | Director, School of Chemical Science Mahatma Gandhi University, Kottayam |
| 46. | Dr. Raju Francis | School of Chemical Science Mahatma Gandhi University, Kottayam |
| **School of Computer Sciences** | | |
| 47. | Rema Rajeshwarti I.P.S. | Deputy Commissioner Of Police, Malkajgiri zone, Cyberabad(Hyd), Head-Cyb SHE TEAMS Malkajgiri, Hyderabad |
| 48. | Santhosh Pillai | Technical Program Manager, Microsoft, USA |
| 49. | Sunil Chakkappen | Consulting Member of Technical Staff, Oracle, San Francisco Bay Area, USA |
| 50. | Suresh Babu | Director, R &D Engineering, V M Ware, Bangalore |
| 51. | Dr Lekshmi S | Scientist E, Naval Physical and Oceanographic Laboratory, DRDO, Ministry of Defence, Thrikkakara,, Kochi |

| 52. | Jeesmon Jacob | Senior Software Engineer, eBay Inc, USA |
|---|---|---|
| 53. | Vipin Das R | Senior Project Manager, Infosys Ltd. Trivandrum |
| 54. | Vipins Gopinath | Senior Software Design Engineer, Microsoft, USA |

**School of Environmental Sciences**

| 55. | Dr. PC Abhilash | Assistant Professor, BHU |
|---|---|---|
| 56. | Dr. Shijo Joseph | Scientist E, KFRI |
| 57. | Dr. Rakesh PS | Scientist, NIO, Mumbai |
| 58. | Dr. B. Ajayakumar | Geologist, Department of Mining and Geology, Kerala |
| 59. | Dr. Jayasooryan KK | Scientist, RRI, Kottayam |
| 60. | Dr. Joshy George, | Central Institute of Mining and Fuel Research, Dhanbad |
| 61. | Mr. Sreekandan Nair | Former Director, DoECC, Government of Kerala |
| 62. | Prof. Dr. Thomas Mathew | HOD, Dept. of Chemistry, Marthoma College, Thiruvalla |
| 63. | Dr.Sr. M.K Alphonsa | Principal, Morning Star College, Angamaly |
| 64. | Dr. P M Koshy | Associate Professor in Zoology, St. Stephens College, Pathanapuram |

**School of Gandhian Thought and Development Studies**

| 65. | Dr. Aby George | Regional Director of Tata Institute of Social Sciences |
|---|---|---|
| 66. | Dr. Siby K Joseph | Dean, Institute of Gandhian Studies, Wardha |
| 67. | Mr. Stephen George | Former Member of Legislative Assembly, Kerala |
| 68. | Dr. MP Mathai | Former Professor , School of Gandhian Thought and Development Studies, MG University & Visiting Professor, Gujarat Vidyapeet, Ahmadabad. |
| 69. | Venu Nair | National Award winner and Film Maker |
| 70. | Jayashankar Bhaskaran | Cataloging Officer in US Embassy, New Delhi |

**School of Indian Legal Thought**

| 71. | Dr. O K Narayanan | Member, Central Income Tax Appellate Tribunal |
|---|---|---|
| 72. | Abraham P George | Member, Central Income Tax Appellate Tribunal |
| 73. | Dr. Anitha Anoop | General Manager, Securities and Exchange Board of India, Bombay |
| 74. | Prof. Dr. Liza P Lukose | Professor, Indraprastha University, New Delhi |
| 75. | Prof. James J Nedumpara | Executive Director, Dept. of International Trade Laws, Jindal Global |

| | | University, Haryana |
|---|---|---|
| 76. | Dr. Unni VR | Associate Professor & Head, IIT, Kharagpur |
| 77. | Dr. V Arya | Associate Professor, Indian Law Institute, New Delhi |
| 78. | Prof. Dr. Sanurani Paul | Professor, ICFAI University, Hyderabad |
| 79. | Dr. Sunil Gladson | Associate Professor, Dr. Ambedkar State Law University, Chennai |
| 80. | Dr. Anish V Pillai | Assistant Professor, Department of Law, Cochin university of Science and Technology |
| **School of International Relations and Politics** | | |
| 81. | B.S. Tirumeni IAS | District Collector, Wayanad, Kerala |
| 82. | Dr. A.K. Ramakrishnan | Professor, School of International Studies, JNU, New Delhi. |
| 83. | T. Rajah Balaji IPS | Central Bureau of Investigation (CBI), New Delhi |
| 84. | M.H. Ilias Hussein | Professor, Jamia Milia Islamia, New Delhi |
| 85. | Dr. Happymon Jacob | Associate Professor, JNU, New Delhi |
| 86. | M.S. Sreerekha | Assistant Professor of Women's Studies, University of Virginia, USA |
| 87. | Dr.Mathew Joseph | Associate Professor, Jamia Milia Islamia, New Delhi |
| 88. | Stanly Johny | Editor, Foreign Affairs, The Hindu |
| 89. | Dr. T.G. Suresh | Associate Professor, Centre for Political Studies, JNU, New Delhi. |
| 90. | Sebastian.N | School of Global Studies, Sikkim Central University, Sikkim |
| 91. | Dr. K.B. Usha | Associate Professor, Centre for Russian Studies, JNU, New Delhi |
| 92. | Anil G. Nair | Executive Editor, Rajya Sabha TV, New Delhi. |
| 93. | Dr.Binitha Thampi | Assistant Professor, IIT, Chennai |
| 94. | Dr. Thomas Joseph | Associate Professor, University of Baroda |
| 95. | Roopa Rachel Kuruvilla | Senior Chief Editor, Khaleej Times, Dubai |
| 96. | V M. Satheesh | Freelance Journalist, Dubai |
| 97. | Dean Kuriakose | Political Activist |
| 98. | Dr. Shahul Hameed | Chief of China Desk, Confederation of Indian Industry (CII) |
| 99. | Dr. Alice Jose | Principal, Alphonsa College, Palai |
| 100. | Dr. A.M Thomas | Director, School of International Relations and Politics, MG University |
| 101. | P T Chacko | Press Secretary to Former Kerala Chief Minister |
| 102. | Rekha Raj | Programme Manager- Women's Rights, |

| | | Amnesty International India, Bangalore |
|---|---|---|
| 103. | Ta Minh Tuan | Direct General and Assistant to the Deputy Prime Minister, Government of Vietnam, Hanoi. |

**School of Letters**

| | | |
|---|---|---|
| 104. | Sidhartha Siva | National award winning film maker |
| 105. | Dr. Sreenath Nair | Academic, Lincoln University, UK |
| 106. | Anwar Ali | Prominent poet |
| 107. | Dr. Manoj M B | Poet, academician |
| 108. | Dr. Manoj Kurur | Poet, academician |
| 109. | Dr. Ajay Sekher | Academician, translator and critic. |
| 110. | Ettumannur Kannan | Academic and Kathakali Artist |
| 111. | Dileesh Pothen | Theatre activist and film maker. |
| 112. | Unnikrishnan B. | Critic, film maker and activist. |

**School of Management and Business Studies**

| | | |
|---|---|---|
| 113. | Dr Roshna Varghese | Assistant Professor, Rajagiri Institute of Management, Cochin |
| 114. | Sarita K P | LIC Divisions Officer, Ernakulum |
| 115. | Dileep K H | Deputy Manager, Axis Bank |
| 116. | Eby Elias | Manager, South Indian Bank |
| 117. | Shanavas | Deputy Collector, Kollam District |
| 118. | Dr Biju M K | Assistant Professor, M G University. |

**School of Pedagogical Sciences**

| | | |
|---|---|---|
| 119. | Dr.Minimol Srambickal | Director, College Development Council, University of Kerala. |
| 120. | Dr.Amruth G. Kumar | Associate Professor, Central University, Kasaragod. |
| 121. | Dr.Anu G. S | Assistant Professor, Central University, Himachel Pradesh. |
| 122. | Dr.Subash, | Associate Professor, NCERT, New Delhi. |
| 123. | Dr.AncyVarughese | Project Officer, SCERT, Trivandrum |

**School of Physical Education & Sports**

| | | |
|---|---|---|
| 124. | Anilda Thomas | Senior Superintendent, Forest Headquarters, Thiruvananthapuram ( Olympian, Athletics) |
| 125. | O.P Jaisha | Senior Clerk, South  Central Railway,  ( Olympian, Athletics) |
| 126. | Jinson Johnson | Havildar, Indian Army,  ( Olympian, Athletics) |
| 127. | Gopi T | Havildar, Indian Army,  ( Olympian, Athletics) |
| 128. | Sri. Deepu S | PET in Physical Education, Kendriya Vidyalaya |

**School of Pure and Applied Physics**

| | | |
|---|---|---|
| 129. | Prof. Ajith Parameshwaran | Associate Professor, International Centre for Theoretical Sciences TIFR. |

| | | |
|---|---|---|
| | | (Detection of gravitational waves. Breakthrough 1million US$ Prize in Fundamental Physics awarded to the LIGO Team for detection of gravitational waves) |
| 130. | Dr Rahul R Nair | Reader, Condensed Matter Physics Group, University of Manchester and a Royal Society University Research Fellow. (Member in the Research team of Prof Andre Geim who won the Nobel Prize in Physics for work with Graphene. He has been awarded the Moseley Medal & Prize for Early Career Researchers by the Institute of Physics) |
| 131. | Dr Vinu Vikram | Kavli Institute for Cosmological Physics as KICP Associate Fellow (Leader of the team at the Argonne National Laboratory which generated the Dark Matter Map of the Universe.) |
| 132. | Dr Gin Jose | Chair in Functional Materials at the University of Leeds (Developed a small device with low-powered lasers to measure blood glucose levels without penetrating the skin. It could give people a simpler, pain-free alternative to finger pricking.) |
| 133. | Dr Naslim Neelamkodan | EACOA Fellow at Academia Sinica Institute of Astronomy and Astrophysics (ASIAA) (Discovery of the most Zirconium rich Star till date.) |
| 134. | Dr Harsha S Kumar | Manitoba University, Canada |
| 135. | Dr G Ajith Kumar | Recipient of SPIE Green Photonics Award for work on "Infrared excited Yb: Er: $Y_2O_2S$ phosphors with intense emission for lighting applications", Post-doctoral fellow, University of Texas, San Antonio, USA |
| 136. | Dr Pramod Gopinath | Director, International School of Photonics, Cochin University of Science & Technology |
| 137. | Joji Joykutty | Intellectual Property (IP) Analyst at General Electric Global Research Centre in Bangalore |
| 138. | Dr K N Narayanan Unni | Director, Photochemistry Laboratory NIIST (CSIR) Trivandrum |

| | School of Social Sciences | |
|---|---|---|
| 139. | Dr. P. K. Michel Tharakan | Former Vice-Chancellor of Kannur University |
| 140. | Dr. Sujith Kumar Parayil | Assistant Professor, Centre for Media Studies, Jawaharlal Nehru University |
| 141. | Dr. Bindu Menon | Associate Professor, Lady Sriram College, New Delhi |
| 142. | Dr. Justin Mathew | Assistant Professor, Hansraj College, University of Delhi |
| 143. | Dr.Susan Thomas | Assistant Professor, Sree Shankaracharya Sanskrit University |
| 144. | Dr. Amruth M. | Scientist, Kerala Forest Research Institute, Peechi |
| 145. | Dr. Suresh M. | Assistant Professor, Tata Institute of Social Sciences, Bombay |
| 146. | Saji M Kadavil, | International Consultant, CSR and Business Development, New Delhi |
| 147. | Dr. J Devika | Associate Fellow, Centre for Development Studies, Thiruvananthapuram |
| 148. | Dr. Philip Mathew | Associate Professor, International School |
| | School of Tourism Studies | |
| 149. | Dr. Sindhu Joseph | Assistant Professor, GPM Government College, Manjeswar, Kasargode (Dist) |
| 150. | Anita T.A | School of Tourism Studies, MG University |
| 151. | Lijesh Jose | Emirates, Dubai |
| 152. | Yatheeshkumar | Branch Manager, Thomas Cook, Thrissur |
| 153. | Akhil K.S | Intersight Holidays, Bangalore |
| 154. | Rakhi C.R | Dolphin Line – Cargo and Freight Company, Dubai |
| | Department of Lifelong Learning and Extension | |
| 155. | Sri.M.R. Unni | Registrar ,M.G. University |
| 156. | G.Sreekumar, | Former P.R.O, M .G.University |
| 157. | T.M.Varghese, | Recipient of National award for the best teacher |
| 158. | Prof. Thomas Joseph | Former Secretary, Higher Education Council, Kerala |
| | International and Interuniversity Centre for Nanoscience and Nanotechnology | |
| 159. | Dr. Robin Augustine | National Postdoctoral Fellow, NIT Calicut |
| 160. | Aruni Shaji | Doctoral Fellow, IPF Dresden, Germany |
| 161. | Chithira Kartha | Frieveurg, Germany |
| 162. | Dr. Prasenjit Saha | IIEST, Shibpur |

| | | |
|---|---|---|
| **Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)** | | |
| 163. | Dr, T.U. Sukumaran | Prof. of pediatrics, Pushpagiri Medical College, Thiruvalla. |
| 164. | Dr. Johntkutty J. Ozhukayil | Head of the Department of Physics, MES College, Nedumkadam |
| 165. | Dr. Koshy P.M | Associate Professor, St Stephens College, Pathanapuram |
| 166. | Dr. Shijo Joseph | Scientist, Kerala Forest Research Institute, Thrissur |
| **Institute for Intensive Research in Basic Sciences (IIRBS)** | | |
| 167. | Dellamol Sebastian | Ph.D Programme - USA (CUNY Fellowship, USA). |
| 168. | Anumol S | Ph.D Programme -Indian Institute of Science, Bangalore |
| 169. | AshnaShaji | Ph.D Programme - Indian Institute of Technology, Madras |
| 170. | Surya K | Ph.D Programme -Indian Institute of Technology, Mumbai |
| 171. | Sudheesh T. S | Ph.D Programme - Indian Institute of Technology, Mumbai |
| 172. | Manish Kumar | Ph.D Programme – Indian Institute of Science Education and Research, Mohali |
| **University College of Engineering** | | |
| 173. | Dr.Greeshma Nair | Associate Publisher-Chemistry Elsevier B.V., Radarweg 29, Amsterdam 1043 NX, Netherlands |
| 174. | Dr.Gijo Raj | Prof. Pance Naumov Group<br><br>New York University Abu Dhabi (NYUAD)<br><br>P.O. Box 129188, Saadiyat Island, Abu Dhabi, UAE |
| 175. | Mr. Prasanth R | Head - Rubber Division LanXess India Ltd |
| 176. | Mr.Jaison Jose | Huntsman International Pvt Ltd, Mumbai |
| 177. | Mrs. Jayalakshmi C.G | Scientist –G, DRDO, Pune |
| 178. | Mr. Job Antony | Assistant Manager, Renault-Nissan India Pvt Ltd, Chennai |
| 179. | Dr. Bini Varghese | Scientist- ISRO |
| 180. | Dr. Arjun Namboothiri | Scientist- ISRO |

| | | |
|---|---|---|
| **School of Technology & Applied Sciences** | | |
| 181. | Dittin Andrews | Senior Scientist, CDAC, Bangalore. |
| 182. | Mahesh Balakrishnan | Project Manager, UST Global, California. |
| 183. | Sankaran Bhatathiripad | Lead Software engineer Thomson Reuturs, New York. |
| 184. | Parameswaran Namboothiri | Scientist C, CDAC, Trivandrum |
| 185. | Mahesh Mahadevan | Cyber Security Consultant, Sultanate of Oman. |
| 186. | Jyothi Mavila | Senior Project Manager, Microsoft Corporation, Vancouver, British Colombia |
| 187. | Dr. Sreethara Sharma | Scientist (R&D), Tata chemicals Ltd., UK |
| 188. | Dr. Abhilash Kumar K.R. | Rubber Technologist, Dunlop Aircraft Tyres, UK |
| 189. | Prasad P. | Team Leader, Infosys, Bangalore. |
| 190. | Jojan V.L | Senior Manager (Technical) Alliance Tyres Ltd., Israel |
| **School of Applied Life Sciences** | | |
| 191. | Dr.T.G.Manojkumar, | Asst. Director, Marine Products Export Development Authority, Kochi |
| 192. | Dr. P.S.Sivaprasad, | Society for Assistance to fisher women Dept. of Fisheries, Govt. of Kerala |
| 193. | Dr.K.Jayalekshmi | Asst.Professor, Kerala University of Fisheries and Oceans, Kochi |
| 194. | Dr.J.Jean Jose | Asst.Professor,Dept.Zoology, S.G.College, Kottarakkara, Kerala |
| 195. | Dr.Eapen Jacob | Asst.Professor, Dept.Zoology, Women's College ,Trivandrum |
| 196. | Dr.B.O.Prasad | Asst.Professor, Dept. of Zoology. ,Kannur University |
| 197. | Dr.Shilly Elizabeth David | Asst.Professor, Dept of Zoology, Mar Thoma College, Tiruvalla |
| **School of Medical Education** | | |
| 198. | Sudhish Manilal | Medical Record Officer, KIMS Alshifa Hospital |
| 199. | Mahesh Madhavan | Head of Biomedical Engineering (Health Technology Management), Aster MIMS Hospital, Calicut |

| 200. | Arunkumar | Quality and Process improvement Associate, Access Health International, Vijayawada |
|---|---|---|
| 201. | Lincy Margaret | Quality Assurance Officer, National Health Mission, Kerala |
| 202. | Shilpa Raju | Medical Record Technician, Muthoot Medical Centre, Kozhencherry |
| 203. | Mobin Mathew | Medical Records Executive at Rajagiri Hospital Kochi |
| **Mahatma Gandhi University Colleges of Teacher Education** | | |
| 204. | Sundaran Konadan | Assistant Manager, Life Insurance Corporation of India, Kalpetta |
| 205. | Shine | Deputy Director of Education, Govt. of Kerala |
| 206. | Saju Varghese | Circle Inspector of Police, Pampady |
| 207. | Arshad A | Circle Inspector of Police, Mullapperiyar |
| 208. | Arun Zachariah | Assistant Director, IT department , Govt. of Kerala |
| **Department of Library and Information Sciences** | | |
| 209. | Santhosh K N | Assistant Professor, St. Peters College, Kolencherry |
| 210. | Ajesh E S | Assistant Librarian, Marian International Institute of Management |
| 211. | Gayathri Mohan | Library Assistant VSSC, Thiruvanathapuram |
| 212. | Pooja Lakshmi K K | Pushpagiri Institute of Medical Sciences & Research Centre, Thiruvalla |
| **School of Communication and Journalism** | | |
| 213. | Dr. Priyamol | IIS |
| 214. | T G Biju | Times of India |
| 215. | Biju Govind | The Hindu |
| 216. | Soyesh H | The Hindu |
| 217. | Prasanth Menon | Times of India |
| 218. | Shailesh Viswanath Menon | Times of India |
| 219. | Anto T | Times of India |
| 220. | Nishad VH | India Today |

**5.1.16 Does the university have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?**

Yes. A Student Grievance Redressal Cell is functioning in the university with the Vice-chancellor as the chairperson. All the schools have units of the grievance redress mechanism supervised by the Heads of Departments. Decisions on grievances and complaints are taken in the meeting of Board of Adjudication of Students Grievances (BASG) headed by the Vice Chancellor.

The grievances of the students are normally settled amicably, without the academic routines of the School or University being affected. Power failure, voltage fluctuation, connectivity, mosquito and stray dog menace are some of the grievances reported.

**5.1.17 Does the university promote a gender-sensitive environment by (i) conducting gender related programmes (ii) establishing cell and mechanism to deal with issues related to sexual harassment? Give details.**

Gender sensitization programs are being conducted in all departments to avoid sexual harassment. The curriculum of the PG Programme of the School of Pedagogical Sciences has areas like women empowerment and women issues. School of Letters offers an elective course titled "Women, Society and Literature." All the Schools observe gender sensitization programmes like the International Women's Day (8th March) International Day of Girl Child (11th October) and Malala Day etc. The University has instituted a permanent Cell to combat sexual harassment.

**5.1.18 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?**

Yes. There is an anti-ragging committee in the university with the Vice Chancellor as Chairman. There are school wise anti-ragging committees functioning apart from the university level one. At the school level, the Head of the Department/Director is in charge and the faculty members and student representatives are part of the committee. The first year students are informed about the committee and they can report any ragging issues directly to the committee or through the faculty in charge. No cases have been reported so far from the schools or from affiliated institutions. In compliance with the directions of the Hon'ble Supreme Court of India, anti-ragging campaign was conducted in the campus and in affiliated institutions.

**5.1.19 How does the university elicit the cooperation of all its stakeholders to ensure the overall development of its students?**

University ensures the cooperation of all stakeholders to ensure overall development of its students. The Syndicate and Senate have student representatives. The faculty members contribute to the overall development of

the university through their academic contributions and their participation in the various academic bodies. The alumni of the departments contribute to the welfare of the present students by their constant interaction through alumni meetings. The feedback from parents is also sought in Schools/Centres. All these enable the university to plan and reformulate its academic objectives and activities. The university also has active industrial linkage to ensure holistic development.

**5.1.20 How does the university ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made.**

Women students are encouraged to take part in sports competitions and cultural activities. The School of Physical Education and Sports Sciences takes care of the participation of women students in intra- and inter-institutional sports competitions. Department of Students Services and National Service Scheme take care of the cultural activities.

The details of the achievements of Women students in co-curricular, extracurricular and cultural activities at different levels are as follows

| WOMEN ARJUNA AWARDEES OF MAHATMA GANDHI UNIVERSITY | | |
|---|---|---|
| 1 | Smt. Preeja Sreedharan   - Athletics | 2011 |
| 2 | Smt. Geethu Anna Jose   - Basketball | 2014 |

| OLYMPIANS OF MAHATMA GANDHI UNIVERSITY | | |
|---|---|---|
| 1 | Smt. Anilda Thomas  - Athletics | 2016 |
| 2 | Smt. O.P. Jaisha       - Athletics | 2016 |

| INTERNATIONAL WOMEN SPORTS PERSONS OF THE UNIVERSITY | | | |
|---|---|---|---|
| 1 | Smt. Anu R | Athletics | 2015 |
| 2 | Smt. Saneesha E P | Athletics | 2015 |
| 3 | Smt. Poojamol K S | Basketball | 2014 |
| 4 | Smt. Vinaya Joseph | Basketball | 2014 |
| 5 | Smt. Rekha S | Volleyball | 2013 |
| 6 | Smt. Renjini C.A | Handball | 2013 |
| 7 | Smt. Aswathy E | Volleyball | 2012 |
| 8 | Smt. Thanu Mathew | Handball | 2012 |
| 9 | Smt. Maria Ronny | Table Tennis | 2011 |
| 10 | Smt. Reshmi Bose | Athletics | 2010 |
| 11 | Smt. Megha Merin Mathew | Badminton | 2010 |
| 12 | Smt. Fathima Ruksana | Volleyball | 2010 |
| 13 | Smt. Smisha K.S. | Volleyball | 2010 |

| PARTICIPATION AT WORLD UNIVERSITY CHAMPIONSHIP | | | |
|---|---|---|---|
| 1 | Smt. Megah Merin Mathew | Badminton | 2013 |
| 2 | Smt. Arathy Sara Sunil | Badminton | 2013 |
| 3 | Smt. Sheena P.V | Athletics | 2013 |

The Indira Gandhi National Service Scheme award for the Best Volunteer for the year 2014-15 was achieved by Aishwarya Lekshmi .R.

According to the norms of Mahatma Gandhi University Arts festivals, there are about 65 cultural events in which students compete. Out of these items, 4 events are exclusively meant for participation of girls (Mohiniyattam, Thiruvathirakali, Oppana and Margam kali).

**5.2 Student Progression**

**5.2.1    What is the student strength of the university for the current academic year? Analyse the Programme-wise data and provide the trends for the last six years.**

Student Strength 1443

| Programme | % progression |
|---|---|
| UG to PG* | 20% |
| PG to M.Phil * | 25% |
| PG to Ph.D | 55 % |
| Ph.D to Post-Doctoral | 7% |
| Employed<br>• Campus selection<br>• Other than campus recruitment | <br>10%<br>60% |

About 60% of the students of the Science Schools are opting for Ph.D after their PG programme. Students of the Schools like Management and Business Studies, Computer Sciences, Tourism Studies etc. are opting for employment after their studies.
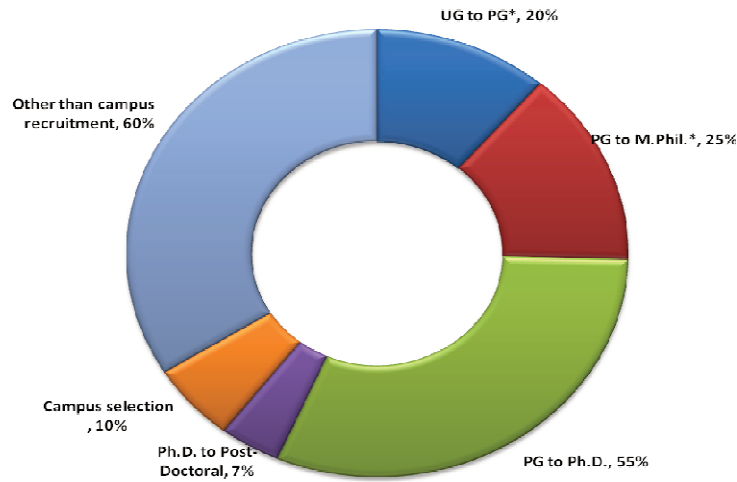
Student Progression – Programme wise data

### 5.2.2 What is the programme-wise completion rate during the time span stipulated by the university?

More than 97% of students admitted to the PG and M.Phil complete their course successfully. The completion rate of Ph.D programme is 99%.

### 5.2.3 What is the number and percentage of students who appeared/ qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.?

About 24% of the PG students have cleared the National competitive tests successfully. For the last five years, a total of 249 students have cleared the UGC-CSIR NET, 38 students have scored the GATE, 55 students have cleared the SLET/SET tests.
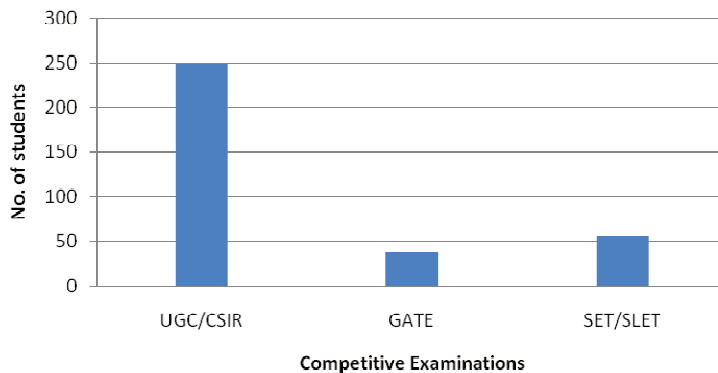


Number of students who have cleared the National level tests during the last five years**.**

**5.2.4. Provide category-wise details regarding the number of Ph.D/ D.Litt. /D.Sc. theses submitted/ accepted/ resubmitted/ rejected in the last four years.**

**Grand Total of PhD during the past five years**

| | | |
|---|---|---|
| Submitted | - | 869 |
| Accepted | - | 860 |
| Resubmitted | - | 09 |
| Rejected | – | Nil |

| Subject/Faculty | Number of PhD Theses | | |
|---|---|---|---|
| | Awarded/Submitted | Resubmitted | Rejected |
| Arabic | 6 | | |
| Behavioral Sceinces | 15 | | |
| Biochemistry | 37 | 1 | |
| Biotechnology | 16 | | |
| Botany | 28 | | |
| Chemistry | 63 | 2 | |
| Commerce | 79 | | |
| Computer Science | 14 | 1 | |
| Economics | 48 | | |
| Education | 65 | | |
| English | 32 | | |
| Environmental Sciences | 34 | 2 | |
| Fine Arts | 2 | | |
| Fishery Science | 2 | | |
| Gandhian Studies | 14 | 1 | |
| Hindi | 40 | | |
| History | 7 | | |
| Home Science | 7 | | |
| Immunology | 3 | | |
| International Relations | 16 | | |
| Journalism | 1 | | |
| Law | 9 | | |
| Malayalam | 60 | | |
| Management Studies | 18 | | |

| | | | |
|---|---|---|---|
| **Mathematics** | 26 | | |
| **Microbiology** | 9 | | |
| **Nano Science and Nanotechnology** | 1 | | |
| **Nursing** | 1 | | |
| **Pharmacy** | 3 | | |
| **Physical Education** | 14 | | |
| **Physics** | 51 | 2 | |
| **Psychology** | 5 | | |
| **Philosophy** | 3 | | |
| **Physiology** | 1 | | |
| **Political Science** | 5 | | |
| **Public Health** | 1 | | |
| **Sanskrit** | 9 | | |
| **Social Science** | 59 | | |
| **Sociology** | 4 | | |
| **Social Work** | 14 | | |
| **Special Education** | 4 | | |
| **Statistics** | 15 | | |
| **Syriac** | 3 | | |
| **Theatre Arts** | 1 | | |
| **Zoology** | 24 | | |
| **Total** | **869** | **9** | - |

### List of recipients of Honorary Degree 2010-2016 (conferred by Mahatma Gandhi University)

Mahatma Gandhi University honored the following eminent personalities by conferring D.Litt and D.Sc during the last five years.

| Sl No. | Name | Area of Excellence | Degree Conferred | Date of Award |
|---|---|---|---|---|
| 1 | A. Ramachandran | Art | D.Litt | 20th November 2013 |
| 2 | N. Ram | Journalism | D.Litt | 20th November 2013 |
| 3 | Late V. Dakshinamoorthy | Music | D.Litt | 20th November 2013 |
| 4 | C.N.R Rao | Science | D.Sc. | 20th November 2013 |
| 5 | K. Radhakrishnan | Science | D.Sc. | 21st April 2015 |

## 5.3. Student Participation and Activities

**5.3.1** **List the range of sports, cultural and extracurricular activities available to students. Furnish the programme calendar and provide details of students' participation.**

**The following is the list of sports items available for students of the University**

| | |
|---|---|
| Athletics | Ball Badminton |
| Badminton | Basketball |
| Chess | Cross country Race |
| Cycling | Football |
| Half Marathon & walking | Handball |
| Hockey | Judo |
| Kabaddi | Kho Kho |
| Softball | Swimming/Water polo |
| Table Tennis | Tennis |
| Volleyball | Weight Lifting |
| Best Physique | Wrestling |
| Cricket | Power lifting |
| Baseball | Netball |
| Yoga | Taekwondo |
| *Other facilities include:* | |
| Indoor Badminton Court | Yoga |
| Fitness Centers for Men and Women | |

**Programme Calendar of the School of Physical Education and Sports Science 2011-12**

| Sl. No | EVENT | DATE OF I.C TOURNAMENTS | VENUE | No of Students Participated |
|---|---|---|---|---|
| 1 | Power Lifting(M&W) | Sep 7 | U. C. College, Aluva | 85 |
| 2 | Volleyball(M&W) | Sep 10-12 | S.H.College, Thevara | 300 |
| 3 | Basket Ball(M&W) | Sep 14,15 | BPC College,Piravom | 350 |
| 4 | Wrestling (M&W) | Sep 16 | Maharajas College, Ernakulam | 60 |
| 5 | Handball(W& M) | Sep19,20 | Maharajas College, Ernakulam | 175 |
| 6 | Hockey  (M&W) | Sep 21,22 | CMS College, Kottayam | 400 |
| 7 | Tennis (M&W) | Oct 8 | MA, Kothamangalam | 65 |
| 8 | Kabaddi(M&W) | Oct15,16 | K.G.Pampady | 116 |
| 9 | Kho–Kho  (M&W) | Oct 19,20 | MA, Kothamangalam | 200 |
| 10 | Badminton(M&W) | Oct 22,23 | MA, Kothamangalam | 110 |
| 11 | Chess(M&W) | Oct 28,29 | K.G.Pampady | 75 |
| 12 | Cross Country(M&W) | Nov 3 | MA, Kothamangalam | 300 |
| 13 | Swimming and WaterPolo | Nov 8,9 | MA, Kothamangalam | 250 |
| 14 | Judo(M&W) | 15 Nov | S. S. College Kalady | 110 |
| 15 | Baseball (M&W) | Dec. 1 , 2,3 | K.E.College, Mannanam | 180 |
| 16 | Cycling (M&W) | Dec, 4 | Assumption Changanachery | 50 |
| 17 | Weightlifting/ Best Physique | Dec 16 | SVRNSS College, Vazhoor | 115 |
| 18 | Ball Badminton (M&W) | Dec 20 ,21 | Marthoma.College, Tiruvalla | 220 |
| 19 | Softball(M&W) | Jan 2 - 4 | Marthoma College, Tiruvalla | 350 |
| 20 | Yoga (M&W) | Jan 7 | University Stadium | 90 |
| 21 | Netball (M&W) | Jan 9 - 10 | Alphonsa Colege.Pala | 280 |
| 22 | Taekwondo(M&W) | Jan13 , 14 | U.C.College , Aluva | 90 |
| 23 | Half Marathon(M&W) | Jan 27 | MA, Kothamangalam | 90 |
| 24 | Athletics(M&W) | Jan 28,29 | S. S. College Kalady | 870 |
| 25 | Cricket (M&W) | Feb  3 - 7 | Baselius College, Kottayam | 600 |
| 26 | Table Tennis(M&W) | Feb 9 | Chinmaya Vidyapeet Ernakulam | 100 |
| 27 | Football (M&W) | Feb 10 - 11 | Newman College, Thodupuzha | 825 |
| 28 | Fencing(M&W) | Feb 13 | University Stadium | 110 |

## SPORTS CALENDAR, 2012-2013

| Sl. No | EVENT | DATE OF I.C TOURNAMENTS | VENUE | No of Students Participated |
|---|---|---|---|---|
| 1 | Wrestling (M&W) | Sep 16 | Maharajas College, Ernakulam | 75 |
| 2 | Handball(W& M) | Sep 19,20 | Maharajas College, Ernakulam | 200 |
| 3 | Hockey (M&W) | S 21,22 | CMS College, Kottayam | 420 |
| 4 | Tennis (M&W) | Oct 8 | MA, Kothamangalam | 90 |
| 5 | Kabaddi(M&W) | Oct15,16 | K. G. Pampady | 175 |
| 6 | Kho–Kho (M&W) | Oct 19,20 | MA, Kothamangalam | 240 |
| 7 | Half Marathon(M&W) | Oct 27 | MA, Kothamangalam | 95 |
| 8 | Athletics(M&W) | Oct 28,29 | S. S. College, Kalady | 900 |
| 9 | Cricket (M&W) | Nov 3 - 7 | Baselius College, Kottayam | 750 |
| 10 | Table Tennis(M&W) | Nov 9 | Chinmaya Vidyapeet Ernakulam | 120 |
| 11 | Football (M&W) | Nov 9 - 11 | Newman College, Thodupuzha | 900 |
| 12 | Fencing(M&W) | Nov13 | University Stadium | 115 |
| 13 | Weightlifting/ Best Physique | Nov 16 | SVRNSS College, Vazhoor | 130 |
| 14 | Ball Badminton (M&W) | Nov 20 ,21 | Marthoma College, Tiruvalla | 260 |
| 15 | Softball(M&W) | Dec 2 - 4 | Marthoma College, Tiruvalla | 400 |
| 16 | Yoga (M&W) | Dec 7 | University Stadium | 95 |
| 17 | Netball (M&W) | Dec 9 - 10 | Alphonsa College, Pala | 300 |
| 18 | Taekwondo(M&W) | Dec13 , 14 | U. C. College, Aluva | 90 |
| 19 | Badminton(M&W) | Dec 17,18 | MA College, Kothamangalam | 120 |
| 20 | Chess(M&W) | Dec 19,20 | K. G. College, Pampady | 95 |
| 21 | Cross Country(M&W) | Jan 3 | MA College, Kothamangalam | 300 |
| 22 | Swimming and WaterPolo | Jan 8,9 | MA College, Kothamangalam | 300 |
| 23 | Judo(M&W) | Jan 10 | S. S. College Kalady | 120 |
| 24 | Baseball (M&W) | Jan 15,16 | K. E. College, Mannanam | 190 |
| 25 | Cycling (M&W) | Jan 22,23 | Assumption College, Changanachery | 70 |
| 26 | Power Lifting(M&W) | Jan 30 | U. C. College, Aluva | 110 |
| 27 | Volleyball(M&W) | Feb10-12 | S. H. College, Thevara | 300 |
| 28 | Basket Ball(M&W) | Feb 14,15 | BPC College, Piravom | 400 |

## SPORTS CALENDAR, 2013-2014

| Sl. No | EVENT | DATE OF I.C TOURNAMENTS | VENUE | No of Students Participated |
|---|---|---|---|---|
| 1 | Ball Badminton (M&W) | Sep 20, 21 | Marthoma College, Tiruvalla | 280 |
| 2 | Softball(M&W) | Oct 2 - 4 | Marthoma College, Tiruvalla | 420 |
| 3 | Yoga (M&W) | Oct 7 | University Stadium | 100 |
| 4 | Netball (M&W) | Oct 9 - 10 | Alphonsa College, Pala | 330 |
| 5 | Taekwondo(M&W) | Nov 1 ,2 | U. C. College, Aluva | 105 |
| 6 | Badminton(M&W) | Nov 8,9 | MA College, Kothamangalam | 135 |
| 7 | Chess(M&W) | Nov 19,20 | K. G. College, Pampady. | 105 |
| 8 | Cross Country(M&W) | Nov 22 | M. A. College, Kothamangalam | 310 |
| 9 | Swimming and Water Polo | Nov 25,26 | MA College, Kothamangalam | 350 |
| 10 | Judo(M&W) | Nov 29,30 | S. S. College Kalady | 130 |
| 11 | Baseball (M&W) | Dec 1,2 | K. E. College, Mannanam | 220 |
| 12 | Cycling (M&W) | Dec 3 | Assumption College Changanachery | 95 |
| 13 | Power Lifting(M&W) | Dec 8, 9 | U. C. College, Aluva | 130 |
| 14 | Volleyball(M&W) | Dec 10 | S.H.College, Thevara | 350 |
| 15 | Basket Ball(M&W) | Dec 15,16 | BPC College, Piravom | 450 |
| 16 | Weightlifting/ Best Physique | Dec 17,18 | SVRNSS College, Vazhoor | 150 |
| 17 | Kho–Kho  (M&W) | Dec 19,20 | MA College, Kothamangalam | 260 |
| 18 | Half Marathon(M&W) | Dec 21 | MA College, Kothamangalam | 105 |
| 19 | Athletics(M&W) | Dec 22,23 | S. S. College, Kalady | 950 |
| 20 | Cricket (M&W) | Jan 3 | Baselius College, Kottayam | 810 |
| 21 | Table Tennis(M&W) | Jan 8, 9 | Chinmaya Vidyapeet Ernakulam | 130 |
| 22 | Football (M&W) | Jan10 | Newman College, Thodupuzha | 930 |
| 23 | Fencing(M&W) | Jan 15,16 | University Stadium | 130 |
| 24 | Wrestling (M&W) | Jan 17 | Maharaja's College, Ernakulam | 85 |
| 25 | Handball(W& M) | Jan 19,20 | Maharaja's College, Ernakulam | 220 |
| 26 | Hockey  (M&W) | Jan 21,22 | CMS College, Kottayam | 450 |
| 27 | Tennis (M&W) | Feb 8 | MA College, Kothamangalam | 105 |
| 28 | Kabaddi(M&W) | Feb 15,16 | K. G. Pampady | 200 |

## SPORTS CALENDAR, 2014-2015

| Sl. No | EVENT | DATE OF I.C. TOURNAMENTS | VENUE | No of Students Participated |
|---|---|---|---|---|
| 1 | Judo(M&W) | Nov 29,30 | S. S. College, Kalady | 150 |
| 2 | Baseball (M&W) | Dec 1,2 | K.E. College, Mannanam | 220 |
| 3 | Cycling (M&W) | Dec 3 | Assumption College Changanachery | 100 |
| 4 | Power Lifting(M&W) | Dec 8,9 | U. C. College, Aluva | 125 |
| 5 | Volleyball(M&W) | Dec 10 | S. H. College, Thevara | 380 |
| 6 | Basket Ball(M&W) | Dec 15,16 | BPC College, Piravom | 450 |
| 7 | Ball Badminton (M&W) | Sep 20 ,21 | Marthoma College, Tiruvalla | 290 |
| 8 | Softball(M&W) | Oct 2 - 4 | Marthoma College, Tiruvalla | 450 |
| 9 | Yoga (M&W) | Oct 7 | University Stadium | 120 |
| 10 | Netball (M&W) | Oct 9 - 10 | Alphonsa College, Pala | 350 |
| 11 | Taekwondo(M&W) | Nov 1 ,2 | U. C. College, Aluva | 120 |
| 12 | Badminton(M&W) | Nov 8,9 | MA College, Kothamangalam | 150 |
| 13 | Chess(M&W) | Nov 19,20 | K. G. College, Pampady | 110 |
| 14 | Cross Country(M&W) | Nov 22 | MA College, Kothamangalam | 330 |
| 15 | Swimming and Water Polo | Nov 25,26 | MA College, Kothamangalam | 375 |
| 16 | Weightlifting/ Best Physique | Dec 17,18 | SVRNSS College, Vazhoor | 160 |
| 17 | Kho–Kho  (M&W) | Dec 19,20 | MA College, Kothamangalam | 270 |
| 18 | Half Marathon(M&W) | Dec 21 | MA College, Kothamangalam | 130 |
| 19 | Athletics(M&W) | Dec 22,23 | S. S. College, Kalady | 960 |
| 20 | Cricket (M&W) | Jan 3 | Baselius College, Kottayam | 800 |
| 21 | Table Tennis(M&W) | Jan 8,9 | Chinmaya Vidyapeet Ernakulam | 140 |
| 22 | Football (M&W) | Jan10 | Newman College, Thodupuzha | 1000 |
| 23 | Fencing(M&W) | Jan 15,16 | University Stadium | 140 |
| 24 | Wrestling (M&W) | Jan 17 | Maharajas College, Ernakulam | 90 |
| 25 | Handball(W& M) | Jan 19, 20 | Maharajas College, Ernakulam | 250 |
| 26 | Hockey  (M&W) | Jan 21,22 | CMS College, Kottayam | 550 |
| 27 | Tennis (M&W) | Feb 8 | MA College, Kothamangalam | 130 |
| 28 | Kabaddi(M&W) | Feb 15,16 | K. G. College, Pampady | 200 |

## SPORTS CALENDAR, 2015-2016

| Sl. No | EVENT | DATE OF I.C TOURNAMENTS | VENUE | No of Students Participated |
|---|---|---|---|---|
| 1 | Handball(W& M) | Sep19,20 | Maharajas College, Ernakulam | 275 |
| 2 | Hockey (M&W) | Sep 21,22 | CMS College, Kottayam | 480 |
| 3 | Tennis (M&W) | Oct 8 | MA College, Kothamangalam | 140 |
| 4 | Kabaddi(M&W) | Oct 10,11 | K. G. Pampady | 210 |
| 5 | Swimming and WaterPolo | Nov 2,3 | MA College, Kothamangalam | 350 |
| 6 | Weightlifting/ Best Physique | Nov 8, 9 | SVRNSS College, Vazhoor | 160 |
| 7 | Kho–Kho (M&W) | Nov 11,12 | MA College, Kothamangalam | 280 |
| 8 | Half Marathon(M&W) | Nov 14 | MA College, Kothamangalam | 135 |
| 9 | Athletics(M&W) | Nov 15,16 | S. S. College Kalady | 1000 |
| 10 | Cricket (M&W) | Nov 19 to 22 | Baselius College, Kottayam | 850 |
| 11 | Table Tennis(M&W) | Nov 23 | Chinmaya Vidyapeet Ernakulam | 150 |
| 12 | Football (M&W) | Nov 28 to 30 | Newman College, Thodupuzha | 1100 |
| 13 | Fencing(M&W) | Dec 1 | University Stadium | 145 |
| 14 | Wrestling (M&W) | Dec 3 | Maharajas College, Ernakulam | 105 |
| 15 | Netball (M&W) | Dec 9 - 10 | Alphonsa College, Pala | 350 |
| 16 | Taekwondo(M&W) | Dec 13,14 | U.C.College , Aluva | 110 |
| 17 | Badminton(M&W) | Dec. 15,16 | MA College, Kothamangalam | 160 |
| 18 | Chess(M&W) | Dec 17 | K. G. College Pampady | 120 |
| 19 | Cross Country(M&W) | Dec 18 | MA College, Kothamangalam | 400 |
| 20 | Judo(M&W) | Dec 20 | S. S. College Kalady | 250 |
| 21 | Baseball (M&W) | Jan 3,4 | K.E.College, Mannanam | 400 |
| 22 | Cycling (M&W) | Jan 5 | Assumption College Changanachery | 130 |
| 23 | Power Lifting(M&W) | Jan 6,7 | U. C. College, Aluva | 150 |
| 24 | Volleyball(M&W) | Jan 8,9 | S. H. College, Thevara | 400 |
| 25 | Basket Ball(M&W) | Jan15,16 | BPC College, Piravom | 500 |
| 26 | Ball Badminton (M&W) | Jan 20 ,21 | Marthoma College, Tiruvalla | 300 |
| 27 | Softball(M&W) | Feb 2 - 4 | Marthoma College, Tiruvalla | 420 |
| 28 | Yoga (M&W) | Feb 7 | University Stadium | 125 |

## CULTURAL ACTIVITIES

The following are the cultural activities available to the students of the various schools.

- BIOFEST- Annual festival by students of School of Bio Sciences.

- Budha Sangamam- Weekly interactive programme on Arts and Culture- School of Letters.

- CUTE- Weekly student meeting at School of Tourism Studies.

- CLENS- Club of Environment Students (Thursday Club) meets every Thursdays to discuss various environmental issues.

- SWADU. - Annual cooking festival for students.

- CHEMFEST- Annual cultural festival by students of School of Chemical Sciences.

- MURDANIA- Annual cultural festival by students of School of Environmental Sciences.

- Regale - Annual cultural festival by students of School of Computer Sciences.

- BeSTA DAY- Annual cultural festival by students of School of Behavioural Sciences.

- Parasparyam-Culture fest of the Department of Life Long Learning and Extension for the Elderl-y.

- Nano Day - Annual cultural festival by students of International interuniversity centre for Nanoscience and nanotechnology.

- IR Day- Students of the School of International Relations and Politics have an annual cultural fest which also included the alumni of the school.

## DEPARTMENT OF STUDENT SERVICES

PROGRAMME CALENDER 2013 – 2016

| Sl No. | Event | Venue | Date | No. of Participants |
|---|---|---|---|---|
| 1 | Best College Magazine Competition 2013 | Department of Student Services | February 2013 | 15 |
| 2 | Cash Award to winners of Youth Festivals | Kottayam | March 2013 | |
| 3 | South Asian University FEST 2013 | Punjabi University, Patiala | February 2013 | 1 |
| 4 | Inter-Collegiate Quiz Competition | MG University Assembly Hall | 08 February 2013. | 50 |

## 2014

| Sl No. | Event | Venue | Date | No. of Participants |
|---|---|---|---|---|
| 1 | 29th National Inter University Youth Festival | Kurukshethra University, Kurukshethra | 18-22 February, 2014 | 18 |
| 2 | 30th South Zone Inter University Youth Festival | Tumkur University, Tumkur , Karnataka | 8-12 December, 2014. | 40 |
| 3 | Best College Magazine Competition 2013-14 | Department of Student Services | January 2015 | 20 |
| 4 | Cash Award to winners of Youth Festivals | St. Teresa's College, Ernakulam | March 2015 | 10 |

## 2015

| Sl No. | Event | Venue | Date | No. of Participants |
|---|---|---|---|---|
| 1 | South Zone Inter University Youth Festival | Bangalore University, Karnataka | December 2015 | 40 |
| 2 | National Inter University Youth Festival at Indore | Devi Ahilya Viswa Vidyalaya at Indore, Madhya Pradesh | September 2015 | 30 |
| 3 | Nature Sensitization Camp | Pampadum Sholai National Park, Munnar | 28th - 29th July 2016 | 45 |
| 4 | Inter-Collegiate Media Residential Camp | Devamatha College, Kuravilangad | 30.01.2015 to 01.02.2015 | 38 |
| 5 | Best College Magazine Competition 2014-15 | Department of Student Services | January 2015 | 20 |
| 6 | Cash Awards to winners of MG University Youth Festival (KELI-2014)/SZIUYF/NIUYF | MG University Assembly Hall | 08 February 2013. | 50 |
| 7 | National Inter University Music Fest – 2015 | Kottayam | 23-27 September 2015 | 40 |
| 8 | Students cultural scholarship | School of Environmental Science | November 2015 | 16 |
| 9 | Financial assistance for Medical Aid to students | School of Environmental science | November 2015 | 16 |
| 10 | Scholarship to physically challenged students | School of Environmental science | November 2015 | 16 |
| 11 | Cash Award to Republic Day Parade contingent of NSS/NCC | School of Environmental science | November 2015 | 16 |

**2016**

| Sl No. | Event | Venue | Date | No. of Participants |
|--------|-------|-------|------|---------------------|
| 1 | Campus Familiarization Programme | Mahatma Gandhi University Campus | 07/01/2016 | 400 |
| 2 | South Zone Inter University Youth Festival | Mangalore University at Mangalagangothri | 17th January 2016 | 40 |
| 3 | National Inter University Youth Festival | Mysore University, Karnataka | 15th to 19th of February 2016. | 26 |
| 4 | Mukkutti Folk Song Competition | Mahatma Gandhi University Campus | September 2016 | 28 Teams |
| 5 | Editors Camp | U C College, Aluva | October 2016 | 30 |

## EXTRA CURRICULAR ACTIVITIES

The university gives ample opportunities to take part in extracurricular activities. The main motto of extracurricular activities is personality development. These are the activities which encourage students to take up their study in a healthy manner. All-round development is achieved through active participation in co-curricular activities. Extracurricular activities offered include National Service Scheme, NSS Film club, Nature club, Red-Ribbon Clubs, Bhoomithra Clubs etc and the associations at the various schools.

### Extra-Curricular Activities through National Service Scheme and Department of Life Long Learning and Extension

The various extracurricular activities undertaken by NSS are as follows: Greening Kerala campaign, anti-drug programmes, energy conservation programmes, anti-ragging campaigns, first-aid training programmes, Swachh Bharat awareness campaigns, Unnat Bharat Abhiyan at central ward of Athirampuzha Panchayat, Nalpathimala village, Edamalakudy tribal village and Mukkumpuzha tribal settlement. Govt. U. P. School, Kattathy for computer literacy, blood donation, nature camps, life skill development programmes, river protection programmes, energy conservation activities, awareness against drugs and tobacco, legal literacy programmes, leadership training, personality development programmes, women empowerment programmes, programmes for the elderly, saplings planting drives, life style education, Clean Kerala campaign, involvement in durable assets creation, visit to orphanages, destitute homes, AIDS awareness, income generation projects, home for the homeless, health and family welfare programmes, organic farming, national integration and communal harmony programmes, eco friendly bag making, book binding, traffic awareness programmes, Grama

Darshan programme, Cancer awareness programmes, E-Jalakam, Digital India camps, Swachchhata Pakhwara programme, Sabarimala Cleaning campaigns, adolescent health awareness programmes, pain and palliative care programmes, eye-donation awareness campaigns etc.

## NATIONAL SERVICE SCHEME PROGRAMME CALENDAR -2011

| Sl.No | Venue | Programme | Date | No. of Participants |
|---|---|---|---|---|
| 1 | B K College Amalagiri | Training Programmes for making Eco-friendly Paper bags | 6/8/2011 | 55 |
| .2 | University campus | University level Advisory Committee meeting | 26/8/2011 | 25 |
| 3 | St. Xavier's College, Aluva | NSS Award ceremony 2010-11 | 27.08.2011 | 150 |
| 4 | Govt. College, Thripunithura. | NSS Day celebrations | 24/9/2011. | 125 |
| 5 | University Campus | Gandhi Jayanti Day celebration, Peace March and Cleaning programme | 2/10/2011 | 210 |
| 6 | University Campus | Seminar on National Integration and Communal Harmony | 2/10/2011 | 180 |
| 7 | CMS College, Kottayam | University Pre-RD Selection Camp | 3/10/2011 | 150 |
| 8 | CMS College, Kottayam | Volunteer Leadership Training Camp | 4/11/2011 6/11/2011 | 100 |
| 9 | University campus | World Environment Day Celebration by Planting trees in Campus | 5/6/2012 | 100 |

## NATIONAL SERVICE SCHEME PROGRAMME CALENDAR - 2012

| Sl.No | Venue | Programme | Date | No. of Participants |
|---|---|---|---|---|
| 1. | University Campus | International Day against Drug Abuse & Illicit Trafficking -One day intercollegiate seminar on "Think Health-Not Drugs | 26/6/2012 | 80 |
| 2. | MES College, Erumely | Volunteer Secretaries' Training Camp | 31/8/2012 5/9/2012 | 100 |
| 3. | D B College, Keezhoor | Three day inter collegiate workshop – Media, Reporting News writing & Photography. | 28.9.2012 30.9.2012 | 100 |
| 4 | St. Xaviers College for (W), Aluva | Three day Inter Collegiate Seminar on Life style & Total Health | 30.11.2012 2.12.2012 | 100 |

## NATIONAL SERVICE SCHEME PROGRAMME CALENDAR  - 2013

| Sl.No | Venue | Programme | Date | No. of Participants |
|---|---|---|---|---|
| 1. | SB College Changanacherry | One day seminar- The role of judiciary in social justice | 23.2.2013 | 80 |
| 2. | Nirmala College Muvattupuzha | Three day Intercollegiate Camp-Leadership&Personality Development | 1.3.2013 3.3.2013 | 65 |
| 3. | University Campus | Awareness Programme on blood donation. | 14.6.2013 | 180 |
| 4. | University Campus | Award Evaluation Committee meeting | 14-06-2013 | 3 |
| 5. | University Campus | University level Advisory Committee meeting | 23/7/2013 | 30 |
| 6. | University Campus | Malala Solidarity day | 26/7/2013 | 100 |
| 7. | University Campus | Inter colligate One day programme on the prevention of child abuse | 13/8/2013 | 50 |
| 8. | K.E College Mannanam | University level Volunteer Secretaries' Training Camp | 27/9/2013 29/9/2013 | 140 |
| 9. | B.K. College Amalagiri | Pre-RD selection camp | 11.9.2013 | 160 |
| 10. | University Campus | Gandhi Jayanthi Day celebration | 2/10/2013 | 100 |
| 11. | Sreperumbundur | Trainers Training Programmes on Social Harmony and Human Rights | 12/11/2013 16/11/2013 | 2 |
| 12. | Newman college Thodupuzha | Programme Officers meeting | 15/11/2013 | 20 |
| 13. | Assumption College, Changanacherry | Organic Farming Training | 3/12/2013 | 90 |
| 14. | Alphonsa College, Pala | Award Ceremony | 17/12/2013 | 250 |
| 15. | M E S College Erumely | Three day Intercollegiate Camp- environment& Skill development | 20.12.2013 22.12.2013 | 100 |

## NATIONAL SERVICE SCHEME PROGRAMME CALENDAR  - 2014

| Sl.No | Venue | Programme | Date | No. of Participants |
|---|---|---|---|---|
| 1. | K G College pampady | One day seminar on personality development | 11.1.2014 | 65 |
| 2. | St.Joseph's College Moolamattom | Personality Development | 5.2.2014 | 35 |
| 3. | Alphonsa College Pala | Women Entrepreneurship Development | 15.2.2014 | 60 |
| 4. | Newman College Thodupuzha | Inter collegiate competition | 22.2.2014 | 35 |
| 5. | M A College Kothamangalam | Three day Camp- Healthy Youth for Healthy  India | 28.2.2014 12.3.2014 | 80 |
| 6. | University Campus | NSS Award Evaluation Committee | 10/6/2014 | 3 |
| 7. | JPM College, Labbakkada, Idukki | State level Campus Leader's Camp "UNARVU" | 4/7/2014 6/7/2014 | 40 |
| 8. | Devamatha College, Kuravilangad | Training Camp for NSS Volunteer Secretaries of colleges | 11.07.2014 13.07 2014 | 145 |
| 9. | Catholicate College Pathanamthitta | Leadership workshop | 5.8.2014 | 40 |
| 10. | B.K. College Amalagiri | Pre-RD Selection Camp | 03.09.2014 | 150 |
| 11. | University Campus | Aksharajyothi Yatra | 7/10/2014 | 100000 |
| 12. | Devamata College Kuravilangad | One day workshop on Gandhian Principles | 28.10.2014 | 75 |
| 13. | St. Teresa's College, Ernakulam | Seminar on  LIFE & PHILOSOPHY OF VIVEKANANDA | 25/11/2014 | 55 |
| 14. | Sriperumbudur | Training Programme on Employability Skills through Life Skills | 28.11.2014 02.12.2014 | 65 |
| 15. | University Campus | Bamboo Planting Festival | (05.12.2014) | 50 |
| 16. | MES College Erumely | Pampa, Sabarimala Environment conservation | 5.12.2014 7.12.2014 | 50 |

## NATIONAL SERVICE SCHEME PROGRAMME CALENDAR  -  2015

| Sl.No | Venue | Programme | Date | No. of Participants |
|-------|-------|-----------|------|---------------------|
| 1. | University Campus | Run Kerala Run programme in connection with the 35th National Games | 20/01/2015 | 200 |
| 2. | Devamatha College Kuravilangad | Media camp | 30.1.2015 1.2.2015 | 100 |
| 3. | New man College Thodupuzha | Quiz Competition Programme | 20.2.2015 | 35 |
| 4. | MES College Erumely | Erumely Sangamam | 20/2/2015 22/2/2015 | 200 |
| 5. | CMS COLLEGE KOTTAYAM | NSS Fest | 27/2/2015 28/2/2015 | 100 |
| 6. | St.Antoney's College Peerumade | Intercollegiate Elocution competition | 3.3.2015 | 100 |
| 7. | St.Teresa's College Ernakulam | One day workshop on Eco-friendly bag making | 5.6.2015 | 57 |
| 8. | B K College Amalagiri | Yoga competition | 20.6.2015 | 200 |
| 9. | BCM College Kottayam | Personality development Traning Programme | 7.10.2015 | 100 |
| 10. | St. Xaviers College for (W) Aluva | Leadership training camp | 13.10.2015 | 85 |
| 11. | Morning Star Home science College Angamaly | Seminar -  Dr.A P J Abdul kalam – the visionary who walked a head of times | 15.10.2015 | 60 |
| 12. | K E College Mannanam | Training programme on E-Jalakam | 11.12.2015 | 75 |
| 13. | University Campus | Quiz competition | 12.12.2015 | 65 |

## NATIONAL SERVICE SCHEME PROGRAMME CALENDAR  - 2016

| Sl.No | Venue | Programme | Date | No. of Participants |
|---|---|---|---|---|
| 1. | Delhi | Republic Day Parade Camp 2016 | 1/1/2016 31/1/2016 | 1 |
| 2. | JPM College Labakkada | Career Guidance & Personality development | 8.1.2016 10.1.2016 | 45 |
| 3. | Marian college Kuttikanam | Seminar on Healthy Life Style and Prevention of Drug Abuse | 15.1.2016 | 60 |
| 4. | St.Xavier's college for (W) Aluva | Life skill Education & Youth Development | 15.1.2016 | 75 |
| 5. | University Campus | E-Waste Awareness And Collection Campaign Through Colleges" | 8/2/2016 | 85 |
| 6. | University Campus | Vivekanda Chair Programmes | 11/2/2016 | 100 |
| 7. | University Campus | Digital India, Work Shop | 25/2/2016 | 150 |
| 8. | St.Xavier's College for(W) Aluva | "Gender sensitivity training & women empowerment" | 4/3/2016 6/3/2016 | 100 |
| 9. | Chaithanya Pastoral Centre, Thellakom | Yoga Training Programme | 27/4/2016 29/4/2016 | 80 |
| 10. | University Campus | Work shop "Jalatharangam" | 12/5/2016 | 60 |
| 11. | University campus | Award Evaluation Meeting | 27/5/2016 | 3 |
| 12. | University Campus | Oru Laksham Maram project | 6/6/2016 | 50 |
| 13. | B K College Amalagiri | Volunteer Secretaries Training Camp 2016-17. | 10/6/2016 12/6/2016 | 148 |
| 14. | Baselius College Kottayam | International Yoga Day | 21/6/2016 | 200 |
| 15. | University Campus | NSS Advisory Board meeting,2016 | 30/6/2016 | 30 |
| 16. | BCM College, Kottayam | NSS PROGRAMME OFFICERS CONFERENCE | 15/7/2016 | 100 |
| 17. | St. Xaviers College For Women, Aluva | SLATE PROJECT | 18-07-2016 | 80 |
| 18. | St. Xaviers College for women, Aluva | PROGRAMME OFFICERS CONFERENCE | 19/7/2016 | 56 |
| 19. | Al Azhar College Of Arts And Science, Perumpillichira | PROGRAMME OFFICERS CONFERENCE | 20/7/2016 | 25 |
| 20. | MACFAST Thiruvalla | PROGRAMME OFFICERS CONFERENCE | 22/7/2016 | 19 |

**5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. during the last six years.**

The University promotes the students to participate in the University/ State/ Zonal/National/International level programs linked to co-curricular, extracurricular and cultural activities.

**Sports Competitions**

| ARJUNA AWARDEES OF MGU | | |
|---|---|---|
| 1 | Smt. Preeja Sreedharan   - Athletics | 2011 |
| 2 | Smt. Geethu Anna Jose   - Basketball | 2014 |

| OLYMPIANS FROM MGU | | |
|---|---|---|
| 1 | Smt. Anilda Thomas  - Athletics | 2016 |
| 2 | Smt. O. P. Jaisha      - Athletics | 2016 |
| 3 | Sri. Gopi T.            – Athletics | 2016 |
| 4 | Sri. Jinson Johnson  - Athletics | 2016 |

| ASIAN GAMES ATHLETES PRODUCED BY MGU | | |
|---|---|---|
| 1 | SRI. Jinson Jhonson    - Athletics | 2014 |
| 2 | Smt. Rekha S            - Volleyball | 2014 |
| 3 | Smt. Fathima Ruksana  - Volleyball | 2014 |

| INTERNATIONAL SPORTS PERSONS FROM MGU | | | |
|---|---|---|---|
| 1 | Smt. Anu R | Athletics | 2015 |
| 2 | Smt. Saneesha E P | Athletics | 2015 |
| 3 | Smt. Poojamol K S | Basketball | 2014 |
| 4 | Smt. Vinaya Joseph | Basketball | 2014 |
| 5 | Smt. Rekha S | Volleyball | 2013 |
| 6 | Smt. Renjini C.A | Handball | 2013 |
| 7 | Smt. Aswathy E | Volleyball | 2012 |
| 8 | Smt. Thanu Mathew | Handball | 2012 |
| 9 | Smt. Maria Ronny | Table Tennis | 2011 |
| 10 | Sri. Arjun M R | Badminton | 2011 |
| 11 | Sri. Shyam Prasad | Badminton | 2011 |

| 12 | Sri. Arun George | Badminton | 2011 |
|----|------------------|-----------|------|
| 13 | Smt. Reshmi Bose | Athletics | 2010 |
| 14 | Smt. Megha Merin Mathew | Badminton | 2010 |
| 15 | Smt. Fathima Ruksana | Volleyball | 2010 |
| 16 | Smt. Smisha K.S. | Volleyball | 2010 |

| PARTICIPATION AT WORLD UNIVERSITY CHAMPIONSHIP | | | |
|----|------------------|-----------|------|
| 1 | Sri. Rijas Mohammed | Volleyball | 2015 |
| 2 | Sri. Dilshad K | Badminton | 2014 |
| 3 | Sri. Suraj P H | Badminton | 2014 |
| 4 | Smt. Megah Merin Mathew | Badminton | 2013 |
| 5 | Smt. Arathy Sara Sunil | Badminton | 2013 |
| 6 | Smt. Sheena P.V | Athletics | 2013 |
| 7 | Sri. Jeris Jose | Athletics | 2013 |

| RANJI TROPHY PLAYERS PRODUCED BY MGU | | |
|----|---------------------------|------|
| 1 | Sri. Jafar Jamal | 2015 |
| 2 | Sri. Salman Mohammed | 2015 |
| 3 | Sri. Muhammed Azharudeen | 2013 |
| 4 | Sri. Sachin Baby | 2012 |

| PERFORMANCE OF MGU TEAM IN INTER UNIVERSITY CHAMPIONSHIPS 2010-11 | | | |
|----|------------------|------|-------|
| 1 | Volleyball (W) | AIIU | First |
| 2 | Cross Country (W) | AIIU | Third |
| 3 | Badminton (W) | AIIU | Third |
| 4 | Athletics (M) | AIIU | Third |

| PERFORMANCE OF MGU TEAM IN INTER UNIVERSITY CHAMPIONSHIPS 2011-12 | | | |
|---|---|---|---|
| 1 | Cross Country (W) | AIIU | First |
| 2 | Badminton | AIIU | First |
| 3 | Athletics (M&W) | AIIU | Second |
| 4 | Handball (W) | South Zone | First |
| 5 | Volleyball (W) | South Zone | Second |
| 6 | Basketball (W) | South Zone | Third |
| 7 | Badminton (M) | South Zone | Second |
| 8 | Table Tennis (M) | South Zone | Third |

| PERFORMANCE OF MGU TEAM IN INTER UNIVERSITY CHAMPIONSHIPS 2012-13 | | |
|---|---|---|
| Badminton (W) | AIIU | First |
| Athletics (W) | AIIU | First |
| Athletics (M) | AIIU | Second |
| Volleyball (W) | AIIU | Third |
| Handball (W) | South Zone | Second |
| Hockey (W) | South Zone | Third |

| PERFORMANCE OF MGU TEAM IN INTER UNIVERSITY CHAMPIONSHIPS 2013-14 | | | |
|---|---|---|---|
| 1 | Athletics (W) | AIIU | First |
| 2 | Badminton(W) | AIIU | First |
| 3 | Badminton (M) | AIIU | First |
| 4 | Volleyball (W) | AIIU | Second |
| 5 | Football (M) | AIIU | Second |
| 6 | Basketball (W) | AIIU | Third |
| 7 | Handball (W) | South Zone | First |

| PERFORMANCE OF MGU TEAM IN INTER UNIVERSITY CHAMPIONSHIPS 2014-15 | | | |
|---|---|---|---|
| 1 | Cross Country (W) | AIIU | First |
| 2 | Badminton | AIIU | First |
| 3 | Athletics (W) | AIIU | First |
| 4 | Volleyball (W) | AIIU | First |
| 5 | Badminton (M) | AIIU | Second |
| 6 | Basketball (W) | AIIU | Third |

| PERFORMANCE OF MGU TEAM IN INTER UNIVERSITY CHAMPIONSHIPS 2015-16 | | | |
|---|---|---|---|
| 1 | Athletics (W) | AIIU | First |
| 2 | Athletics (M) | AIIU | Second |
| 3 | Volleyball (W) | AIIU | Third |
| 4 | Badminton (M) | AIIU | Third |
| 5 | Table Tennis (W) | South Zone | First |
| 6 | Handball (W) | South Zone | Third |

**Youth Festivals**

The Students Union conducts competitions in the following events annually.

- AKSHARASLOKAM
- BHARATHANATYAM - MALE
- CARTOONING
- CLASSICAL MUSIC VOCAL FEMALE
- CLASSICAL MUSIC-MALE
- CLAY MODELING
- COLLAGE
- DUFFMUTTU
- ELOCUTION -MALAYALAM
- ELOCUTION- ENGLISH
- ESSAY WRITING - HINDI
- ESSAY WRITING-ENGLISH

- ESSAY WRITING- MALAYALAM
- FILM REVIEW
- FOLK DANCE -SINGLE
- FOLK DANCE
- GROUP SONG -INDIAN
- GROUP SONG- WESTERN
- HINDI ELOCUTION
- KATHAKALI
- KATHAPRASANGAM
- KAVITHAPARAYANAM -MALAYALAM
- KAVYAKELI
- KERALANADANAM
- KOLKALI
- LIGHT MUSIC -FEMALE
- LIGHT MUSIC -MALE
- MARGAMKALI
- MIME
- MIMICRY
- MOHINIYATTAM
- MONOACT
- ONEACT PLAY
- OPPANA
- OTHER FORMS OF CLASSICAL DANCE
- OTTANTHULLAL
- PAINTING
- PERCUSSION INSTRUMENT- EASTERN
- PERCUSSION INSTRUMENT -WESTERN
- PHOTOGRAPHY
- POETRY RECITATION- ENGLISH
- POETRY RECITATION -HINDI
- POETRY WRITING - ENGLISH

- POETRY WRITING - HINDI

- POETRY WRITING -MALAYALAM

- POSTER DESIGNING

- QUIZ

- SHORT STORY WRITING-ENGLISH

- SHORT STORY WRITING-HINDI

- SKIT

- STORY WRITING -MALAYALAM

- STRINGED INSTRUMENT -WESTERN

- STRINGED INSTRUMENT- EASTERN

- THIRUVATHIRA KALI

- WESTERN VOCAL SOLO

- WIND INSTRUMENT -WESTERN

- WIND INSTUREMENT- EASTERN

**International Moot Court Competition**: Ananthakrishanan A. Kartha, BBA, LLB Final  year student of School of Indian Legal Thought won the Second Best Advocacy Award and Second Best Mooter Award conducted by European College of Law and Commonwealth Legal Education Association in London, UK during September 25-29, 2015.

**National Moot Court:** Ananthakrishanan A. Kartha, BBA, LLB Final  year student of School of Indian Legal Thought won the Best Mooter Award in 2015.

### List of NSS Awardees-University, State and National Level
### INDIRA GANDHI AWARD & STATE AWARD (2011-2015)
### UNIVERSITY LEVEL AWARD 2011-12

| 1. | Neethu P Thomas | SVR NSS Vazhoor |
|---|---|---|
| 2. | Reni Susan Philip | SVRNSS Vazhoor |
| 3. | Renukumar | Assumption College, Changanacherry |
| 4. | Lakshmi E R | D. B. Pampa College, Parumala |
| 5. | Angala Mathew | Alphonsa College, Pala |
| 6. | Akhil Jose | Nirmala College, Muvattupuzha |
| 7. | Ericka Wilson | Nirmala College, Muvattupuzha |

## UNIVERSITY LEVEL AWARD 2012-13

| 1. | Merin Maria Augustin | Baselius College Kottayam |
|----|----------------------|---------------------------|
| 2. | Vishnu K A | St.Thomas College, Kozhencherry |
| 3. | Anu Yohannan | St.Xaviers College for Women, Aluva |
| 4. | Sandra Lis Sebastian | Alphonsa College, Pala |
| 5. | Jubin James | Newman College, Thodupuzha |
| 6. | Raza Habeeb | MES College, Erumely |
| 7. | Anasooya Joseph | Nirmala College, Muvattupuzha |
| 8. | Keerthana K Ajai | Nirmala College, Muvattupuzha |

## UNIVERSITY LEVEL AWARD 2013-14

| 1. | Cinu Priya Joy | Alphonsa College, Pala |
|----|----------------|------------------------|
| 2. | Arya S Nath | Catholicate College, Pathanamthitta |
| 3. | Raveena K Ramesh | K E College, Mannanam |
| 4. | Jomol M Thayyil | Nirmala College, Muvattupuzha |
| 5. | Althaf T.K | MES College, Erumely |
| 6. | Jijo George | K G College, Pampady |
| 7. | Emil T Abraham | Baselius College, Kottayam |
| 8. | Vimal N.V | Nirmala Arts & Science College, Mulanthuruthy |

## UNIVERSITY LEVEL AWARD 2014-15

| 1. | Aiswaryalekshmi R | Alphonsa College Pala |
|----|-------------------|-----------------------|
| 2. | Rose Mary | St.Teresa's College Ernakulam |
| 3. | Priya Anna James | Marian College Kuttikkanam |
| 4. | Manoj George | Baselius College Kottayam |
| 5. | Jiffna Henry | St.Xaviers College For Women Aluva |
| 6. | Tony Mathew | Marian College Kuttikkanam |
| 7. | Libin K Kuriakose | K.G.College Pampady |
| 8. | Alex David | CMS College Kottayam |

**UNIVERSITY LEVEL AWARD 2015-16**

| 1 | Shahana K V | Maharajas College Ernakulam |
|---|---|---|
| 2 | Swarna Thomas | St.Xaviers College For Women Aluva |
| 3 | Jeena Elsa John& | Marian College, Kuttikkanam |
| 4 | Jesty Poly | Morning Star College, Angamaly |
| 5 | Jayasree.S | Baselius College, Kottayam |
| 6 | Emilda George | St.George College, Aruvithura |
| 7 | Shinu Shaji | S N College, Pampanar |
| 8 | Akhil Alex | Catholicate College, Pathanamthitta |
| 9 | Ananthu Ajith | Nirmala College, Muvattupuzha |
| 10 | Abin P Kurian | K. G. College Pampady |

**STATE AWARD 2011-12**

| 1. | Ericka Wilson | Nirmala College, Muvattupuzha |
|---|---|---|

**STATE AWARD 2012-13**

| 1 | Merin Maria Augustin | Baselius College Kottayam |
|---|---|---|

**STATE AWARD 2013-14**

a) University has bagged the NSS State Award for the Best University, 2013-14

b) Cinupriya Joy (Alphonsa College, Pala) and Arya S Nath (Catholicate College Pathanamthitta) NSS volunteers of M.G. University have been selected for NSS State Government Award 2013-2014 for Best volunteers.

**STATE AWARD 2014-15**

| 1. | Aiswaryalekshmi R | Alphonsa College, Pala |
|---|---|---|
| 2. | Rose Mary | St.Teresa's College, Ernakulam |
| 3. | Priya Anna James | Marian College, Kuttikkanam |
| 4. | Manoj George | Baselius College, Kottayam |

**STATE AWARD 2015-16**

    a)   University bagged the NSS State Award for the Best University, 2015-16

| Sl.No | Name of the Student | College |
|-------|---------------------|---------|
| 1. | Shahana K.V. | Maharajas College, Ernakulam |
| 2. | Akhil Alex | Catholicate College Pathanamthitta |
| 3. | Swarna Thomas | St.Xaviers College for Women Aluva |

**INDIRA GANDHI NATIONAL APPRECIATION AWARD 2012-13**

Dr. K. Sabukuttan, Programme Co-ordinator, National Service Scheme Mahatma Gandhi University received Indira Gandhi National Service Scheme Appreciation Award 2012-13 from the Hon'ble President of India Sri. Pranab Kumar Mukherjee.

**INDIRA GANDHI NATIONAL AWARD (IGNSS AWARD 2013-14)**

Mahatma Gandhi University was selected as the Best University and conferred with the Indira Gandhi National Service Scheme (IGNSS Award) for the year 2013-14. Dr. K. Sabukuttan, Programme Co-ordinator, was awarded the Best NSS Co-ordinator award.

**INDIRA GANDHI AWARD 2014-15**

Mahatma Gandhi University National Service Scheme volunteer Manoj George of Baselius College, Kottayam & Aiswarya Lakshmi. R of Alphonsa College, Pala received Indira Gandhi National Service Scheme Best Volunteer Award 2014-15 from the Hon'ble President of India Sri. Pranab Kumar Mukherjee.

**5.3.3**    **Does the university conduct special drives/campaigns for students to promote heritage consciousness?**

Yes. The university has awarded honorary doctorates to the internationally acclaimed painter A. Ramachandran and the late musician V. Dakshinamurthy during the reporting period specifically to uphold the rich cultural heritage and to provide an opportunity for the students and the research scholars to get an overall awareness on the art forms.

The Folklore Club of the university conducts regular programmes for enhancing the consciousness among the students on the legacy and heritage of the Kerala State and India.

- The university encourages students to visit archeological sites to get the feel of yesteryear culture and tradition and to enhance the collections in the

Archeological Museum set up in the School of Social Sciences through new excavations. The university has been instrumental in taking the lead position in establishing two interuniversity centers under the aegis of Government of Kerala for preservation and promotion of traditional organic farming and music, besides the academic and research activities. Students were actively involved in the conduct of the week-long International Music Festival (NAADAM) and 10-day long INBOFA book exhibition cum cultural show. An interuniversity music festival was also organized as part of the NAADAM festival.

- In order to encourage the students to pursue cultural activities, students' cultural scholarship has also been instituted during the period for which an annual allocation of an amount of one lakh rupees is provided.

- Traditional artisans are invited to the campus for displaying their craft before the students. Regular performances of artists are conducted to showcase the rich heritage of the Nation. The Department of Students Services in association with School of Letters conducted *Mukkutty*, an all Kerala Inter University competition exclusively for traditional songs of Kerala. Lecture demonstrations of the tribals as well as rich art forms like Kathakali, Koodiyattom, musical instruments.

- As part of the conferences (national/international) conducted by the International and Interuniversity Centre for Nanoscience and Nanotechnology, Kathakali performances – the traditional art form of Kerala were organized. The performances provided an experience of the rich cultural heritage of Kerala to the international and national delegates.

### 5.3.4 How does the university involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/ materials brought out by the students during the last four academic sessions.

Department of Student Services (DSS) organizes an annual competition for the best student magazine from among the department/ colleges and gives away a cash award of Rs 10,000 as first prize, 7,500 as second prize and Rs 5,000 as third prized and two consolation prizes carrying Rs 2,500 each.

The departments encourage the students to bring out their own magazines in order to encourage the writing skills and creativity among them. Some of the magazines produced by the departmental students of the University are the following.

**IT GLIMPSE**- Annual publication of the students of School of Computer Sciences

*Eco Voice* –News Letter from School of Tourism Studies

*Hue* – Monthly Magazine from School of Tourism Studies

*Un e'talage de terre 2012* - School of Tourism Studies

*Incredible India* 2014- School of Tourism Studies

*Accessibility 2016* – School of Tourism Studies

Students of various departments publish wall papers regularly in the space provided by the university officially.

### 5.3.5 Does the university have a Student Council or any other similar body? Give details on its constitution, activities and funding.

Yes. University has a Department Students Union for the campus students as well as University Students Union for the whole university. Administrative structure of both the unions has elected student representatives from all the departments and colleges respectively. The activities of the unions are controlled by the Executive Committee consisting of Chairman, Vice Chairman, General Secretary, Joint Secretary and members who are elected democratically. The Department Students Union has a Magazine Editor and an Arts Club Secretary too.

The unions conduct inter department/inter collegiate cultural competitions sports and games. Drama Festival, Film Festival, Nature Camp, Magazine Editors Camp, Literary Camps, Book Fairs, awareness campaigns against drug/alcohol/ragging, blood donation programmes, women empowerment programme, workshops for poetry, music and fine arts are some of the programmes organized by the Unions. Student parliaments organized in order to impart leadership skills to the students, are also a regular feature of the activities. Every student contributes Rs 50 annually to meet the expenditure for the activities of the respective unions. Every activity of the unions including finance is controlled by the unions under the guidance of the Director of Student Services.

### 5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.

Student participation has been ensured in the Syndicate which is the chief executive body of the university besides the Academic Council, the highest authority in academic matters. The Senate of the University too has student representation. The student representatives are given ample opportunities to raise administrative and academic issues relating to research scholars and students, including courses, teaching learning methods, evaluation process, infrastructure, library books, and facilities and the functioning of various academic bodies. The students are also free to recommend titles and authors for purchase of books in the university library and school/department libraries. Opinions of the students are sought in the functioning of canteens and hostels as well.

# CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

# CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

## 6.1 Institutional Vision and Leadership

### 6.1.1 State the Vision and the Mission of the University

**VISION:**

*"विद्ययाअमृतमश्नुते Vidyayāmritamaṣṇute"*

*"Mahatma Gandhi University envisions to excel in the field of higher education and cater to the scholastic and developmental needs of the individual, through the continuous creation of a critical knowledge base for the society's sustained and inclusive growth."*

As enshrined in the motto **"विद्ययाअमृतमश्नुते Vidyayāmritamaṣṇute"** the University strives to make individuals immortal through knowledge.

**MISSION:**

The University envisages:

- To create an environment that would foster higher education in its jurisdiction

- To create educated individuals qualified in specialized areas of knowledge

- To plan and implement academic programmes of the highest quality that would foster the holistic development of individuals who will be empowered to act as theconscience of society

- To conduct and support undergraduate, postgraduate and research-level programmes of quality in Sciences, Humanities, Social Sciences, and the professional disciplines

- To foster research and extension activities directed at the reorganization of existing knowledge and the creation of new knowledge for the development of society

- To help in the creation and development of manpower that would provide intellectual leadership to the community

- To provide skilled manpower to the professional, industrial and service sectors in the country so as to meet global demands

- To help promote the cultural heritage of the nation and preserve the biodiversity of the region

- To promote national development by imparting education and culture to the people of the areas coming under the jurisdiction of the University

- To develop itself into an institution with the highest standards of excellence without losing sight of the importance of social equity.

### 6.1.2 Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future etc.?

Yes. The university aspires to emerge as an institution with the highest standards of excellence focusing on social equity.It addresses the needs of the society by producing citizens with social commitment, conducting programmes that provide skilled manpower to the professional, industrial and service sectors in the country so as to meet global demands. Besides it organizes several extension activities that enable it to interact with the society, especially the preservation of the biodiversity of the region. Further, it seeks to serve its students through conduct of qualitatively superior academic programmes.

The institution preserves its tradition and value orientations, by imparting knowledge in accordance with its vision-"*Vidyayāmritamaşŋute*", i.e. immortality through knowledge.

### 6.1.3 How is the leadership involved

### a. In ensuring the organization's management system development, implementation and continuous improvement?

There is a collective leadership in the university which constantly interacts with the stakeholders. The Vice - Chancellor interacts with various administrative departments through the Registrar. The Syndicate is the governing body, the Senate is the advisory body. The syndicate under the chairmanship of Vice-Chancellor meets regularly with a prior agenda. Minutes are prepared, follow up measures are carried out and a continuous process of brainstorming and discussions on the issues are taken up. Periodic meetings of HOD's of schools/centers and principals of affiliated colleges convened by the Vice Chancellor and attended by the university higher ups ensure meaningful interaction between the university leadership and its take holders.

The Academic Council is responsible for the maintenance of standards of curricula, research, education and examination. The Deans, Convener of the Credit and Semester System (CSS), Chairpersons-Boards of Studies (BoS),Director -IQAC, and other designated officials are responsible for introducing new programmes, restructuring the existing ones and introducing innovative methods of teaching in the emerging areas of interest. The College Development Council (CDC) caters to the developmental needs of the

affiliated institutions. The Director for Research ensures the quality of the research programmes by conducting an entrance test, course work and periodical doctoral committee meetings. The Faculty Council meetings at various schools, departments and centers ensure participative decision-making. National/ international experts in the field concerned serve the editorial boards of our journals.

## b. In interacting with its stakeholders?

**Government:** The university is primarily funded by the Government of Kerala. Honourable Minister of Education serves as the Pro- Chancellor and representatives of the government serve as members in the Syndicate, which includes Higher Education Secretary and a Higher Education Council Member. Their participation facilitates better co-ordination with the government without compromising the institution's autonomy.

**Students:** The students and research scholars have direct access to the Vice–Chancellor, the Registrar, Deans and HODs. Periodic meetings are conducted for understanding their needs and problems. Constant interactions with alumni, industrialists and educationalists take place for policy formulation and implementation. The university has taken strong initiatives through IQAC to revise the syllabus by interacting with stakeholders. When new students are enrolled, they are given orientation about CSS, using resources, pedagogy and assessment methods optimally.

**Society at Large:** The university offers programmes in disciplines that include Sciences, Social Sciences, Humanities and professional programmes with intention of a paradigm shift in student attitudes. The schools carry out extension activities to reach out to society, farmers and industrialists. Our science departments, particularly the School of Chemical Sciences and School of Biosciences cater to the requirements of the industry. The University has also established the Centre for Organic Farming to popularize the needs of healthy agriculture/ farming habits and practices. The School of Behavioral Sciences/ Social Sciences address the issues related to the differently-abled people. The School of Environmental Sciences spreads the message of environmental protection and awareness. It also extends support to the villagers providing safe drinking water through rain water harvesting.

## c. In reinforcing a culture of excellence?

Our departments conduct seminars, conferences, workshops etc. to facilitate knowledge flow among the academic community as well as the society. Teachers and students are encouraged to present papers in seminars and publish their research works in reputed international journals. The university publishes itse-journal – *the Mahatma Gandhi University Research E-Journal*to reach out to academic community. Teachers are encouraged to take up socially relevant projects and research in frontier areas.

### d. In identifying organizational needs and striving to fulfill them?

Interactions with all stakeholders on a regular basis help identify organizational needs and to strive for their fulfillment.

### 6.1.4 Were any of the top leadership positions of the university vacant for more than a year? If so, state the reason

No.

### 6.1.5 Does the university ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?

Yes. The government and university take timely measures to fill up all positions in its statutory bodies as per the provisions in the act and statutes. The Syndicate of the university comprises of representatives from all stake holders including that of faculty, educationalists, students, employees and member of legislative assembly. The resolutions of all statutory bodies like Syndicate, Senate and Academic Council are made through democratic participatory decision making process.

*Syndicate/Senate/Academic Council Meetings from 2011-2015*

| Meetings | Sessions |
|----------|----------|
| Syndicate | 55 |
| Senate | 15 |
| Academic Council | 9 |

### 6.1.6 Does the University promote a culture of participative management? If yes, indicate the levels participative management?

Yes. The university promotes a culture of participative management. There exists decentralization and proper division of power and empowerment of appropriate statutory bodies in decision-making at different levels. The university is proud to have representatives from all the categories in its board of governance, namely the faculty, employees and students. The agenda to be discussed is distributed well in advance to provide full opportunity for an informed participation.

### 6.1.7 Give details of the academic and administrative leadership provided by the university to its affiliated colleges and the support and encouragement given to them to become autonomous

Leadership is provided through various bodies like Academic Council, Board of Studies and Pass Boards. The senior faculty members of the university are nominated as representatives in statutory and non-statutory committees in the affiliated colleges. Some of our faculty members are nominated as members of governing boards of autonomous colleges. The university has 10 autonomous

colleges viz. Sacred Heart College Thevara, St. Teresas College, Ernakulam, Assumption College Changanacherry, St.Berchmans College, Changanacherry, Mar Athansious College, Kothamangalam, St.Albert's College,Ernakulam, Marian College, Kuttikanam, Maharajas College Ernakulam, Rajagiri School of Social Sciences, Kalamaserryand CMS College,Kottayam.

The DCDC (Directorate of College Development Council) has been formed by the university to provide leadership to its affiliated colleges in academic and administrative matters. Major Project proposals from around 30 teachers and minor projects from around 100 teachers of affiliated colleges were forwarded to UGC, New Delhi through the office of the Director, College Development Council. DCDC took leadership role in conducting Career Oriented Programmes in 45 colleges. During the X and XI Plans, 08 colleges affiliated to this university were entitled Colleges with Potential for Excellence (CPE).CMS College, Kottayam was awarded Rs. 4.08 Crores under the scheme for institutions with Special Heritage Status. Currently 28 out of 71 colleges are conducting add-on courses. Total number of add-on courses offered by the various colleges of the university is around 60. All these activities are co-ordinated by the DCDC.

### 6.1.8 Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?

No. However, the university has framed rules and regulations for granting autonomy status to the affiliated/constituent colleges. The Academic Council of the University at its meeting held on 17.01.2009 has framed rules for conferment of academic autonomy to the affiliated colleges, which satisfy the eligibility criteria fixed.

### 6.1.9 How does the university groom leadership at various levels? Give details.

University leaders are included in delegations to international forums and are exposed to international academic platforms to emerge as leaders in academia. The university provides financial support to faculty members to participate in international conferences/seminars, symposia etc.

There exists rotation of Directorships every three years and Deanships during every two years which groom leadership among teachers. This facilitates young faculty members to assume leadership and make the institution academically buoyant. Teachers serve as members of the Syndicate, Senate and other bodies of the university. Participation of faculty members in school activities is ensured by distribution of responsibilities.

The university also promotes employees organizations and co-operative societies that inculcates leadership value among the employees. The faculty/staff development programmes organized by the university for its teaching/ non-teaching staff is another platform for personality / skill development and leadership training. The women's organization is also in the forefront in empowering the women community in the campus through its various activities.

Department Students Union (DSU) co-ordinates the cultural/ organizational activities of the students. Elections are periodically held. Besides, the university offers avenues like NSS to groom good leaders from students.

### 6.1.10 Has the university evolved a knowledge management strategy? If yes, give details.

Yes. The university manages knowledge dissemination making use of the following effective strategies.

1. Publications in refereed journals/ seminars/ conferences/ workshops/ symposia.

2. Several schools/centers publish in house academic journals.

3. The printing and publishing department of the university publishes various types of books.

4. BOS in several subjects edits text books for students use.

5. University has organized a number of seminars and conferences for dissemination of knowledge.

6. The IQAC which has a pivotal status takes care of all major academic and knowledge oriented activities of the university.

7. The university website www.mgu.ac.in offers various services to students like downloadable application forms, university orders and other varied academic services offered by the university.

8. Students and faculty can access e-resources subscribed through INFLIBNET facility in the university.

9. Above all, the university has a digital library with a good repository of research projects, theses, dissertations of the researchers of the university providing ready reference.

### 6.1.11 How are the following values reflected in the functioning of the University?

### a.    Contributing to national development:

Research projects are undertaken in different areas in collaboration with leading research institutions within India and abroad. These collaborations

make it possible for the university to send their research students to different research labs of international repute.

Some of the schools are conducting research programmes specially focusing on community development. School of Tourism Studies conducts projects on real time tourism management issues with social relevance using a problem based approach. The School identified and grouped the tourism resources of Kerala and published a book titled 'Tourism Products of Kerala'. ABILITY project of School of Social Sciences is conceived to address the needs of physically challenged students and researchers and to conduct research in disability studies.

The faculty of the School of International Relations and Politics take interest in research and development activities by initiating studies on social policy making such as the Rural Employment Guarantee Act. Constant efforts are made for innovation in curricular development, teaching practices and social research engagements. The faculty members lead three important consultancy studies on Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) commissioned by State Institute of Rural Development, Government of Kerala.

In a novel initiative to engage with issues that are important for the policy-makers of the nation and as an attempt to strengthen the analytical basis for discussion, the university has launched University - Policy-maker interface Programme. The programme examines and prepares studies on issues of national/regional importance that could help clarify the debates on constitutional bills and draw upon expert academic commentaries to arrive at prudent but critical insights into the issues at stake. The programme is part of the KN Raj Centre's efforts to reach out to the policy-makers, on behalf of the university. The most recent endeavour focused on the constitutional bill, 2014 is aimed at the implementation of Goods and Services Tax (GST) regime in the country.

Schools and Centres under the Faculty of Science, Faculty of Technology and Applied Sciences and Faculty of Engineering and Technology have contributed significantly to the society through scientific innovations, trained manpower to academia and industry. Schools / Centres under the Faculty of Social Sciences and Faculty of Management Sciences etc have made significant contributions in the field of heritage preservation, skilled manpower development, social innovations etc. Schools offering programmes in the innovative areas of Environmental Sciences, Gandhian Studies, Life Long Learning, Tourism Studies etc. are pioneering institutions in those areas and have contributed much to national development.

**b.    Fostering global competencies among students:**

Most of the schools of the university have industrial tie-ups and collaborative programmes. The university has many forms of relationships with many

national/international universities/organisations and has signed memoranda of understanding (MoU) as indicated in 5.1.10 (MoU signed with external organizations and effectively implemented)

In School of Environmental Sciences, School of Chemical Sciences and School of Biosciences, experts from industries such as Agilent, Shimadzu, Jeol, Perkin Elmer and Thermo conduct classes and workshop on advancements in instrumental technologies. In School of Tourism Studies, experts from the hospitality, tourism and allied industries deliver lecturers. They also provide internship opportunities in their institutions. Active industry linkage results in internship and placement opportunities to students ensuring employability.

**c.  Inculcating a sound value system among students:**

- Counseling services for parents and children.

- Mental health programmes.

- Sensitization and awareness programmes on drug addiction & alcoholism.

- Conduct of exhibitions and competitions on various disabilities & their management.

- As part of "Clean India Challenge" 8th October 2015 was observed as Cleaning Day.

- Charity programme organized by the Department Students Union of the university for the young residents of Nalpathimala colony.

- Legal literacy mission was carried out in various Panchayats and Schools.

- Organized dispute redressal through the mechanism of mediation.

- Blood donation and campus cleaning activity.

- Students in four groups undertook   projects on "Destination development-Water Ways", "Barrier free tourism in destinations of Kottayam district", "Role of social media in tourism development, "Plant based souvenirs of Kerala" in collaboration with the local tourism/leisure industry suppliers which enabled the students and the School of Tourism Studies to analyze the imperative needs of the needy in achieving their right to leisure.

- Organized gender sensitization programmes.

**d.  Promoting use of technology:**

Campus wide availability and accessibility to internet promotes the use of technology. Use of technological resources and ICT are widely practiced in

teaching-learning. Automation of administrative departments, linking of academic and administration through intranet, use of digital library, provision of PCs, laptops to all members of faculty, Common computing centre with high-end software packages, well established language laboratories are all platforms promoting the use of technology in campus. Submission of proposals for funding from various funding agencies is done through online.

e.    **Quest for excellence:**

Quest for excellence is promoted in the following areas:

- In curriculum development, constructive discussions are undertaken with the stake holders especially from industry and alumni. Feedback is taken from stakeholders to raise the curriculum to international standards.

- In teaching and learning, the state-of-the-art laboratories, hands on experiences and experiential learning plays an important role. Indo-US Obama Singh 21$^{st}$ Century Knowledge Initiative facilitated capacity building among faculty members and students. In some departments, master students are sent abroad to perform part of their theses work. MOOC courses are being offered by various schools

- In promoting research competence, scholars and faculty are deputed for seminars and symposia thus encouraging them to develop academic tie-ups and partnerships. The Research Committee initiates, monitors and promote there search activities of the university.

## 6.2  Strategy Development and Deployment:

**6.2.1    Does the university have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?**

> Yes.The university has a carefully prepared perspective plan for growth and development.

a.    **Vision and mission:**

The university has a vision statement to which all the developmental activities are aligned.

**With a view to creating knowledge addressing the needs of the society,** different programmes and activities are designed in various areas of humanities, basic and applied sciences, management, technology, behavioural sciences etc.

b.    **Teaching and learning:**

The university has a practice of using resourceful and impactful inputs for teaching and learning.   Being the largest university in the state in terms of student intake and number of affiliated colleges, extreme care in every aspect

of teaching and learning including curriculum design, delivery and assessment is taken to ensure quality and excellence

**c.Research and Development:**

The university facilitates cutting edge research in various areas of science and technology, humanities and literary studies and management and business areas. The faculty members of the university have been carrying out several research projects being funded by reputed national agencies. Some faculty members have international research collaborations. The university has been constantly promoting its faculty and scholars in research activities to contribute and generate new knowledge that help address the needs of the industry and society.

TABLE

80 major and 19 minor research projects have been completed during the assessment period and 18 ongoing research projects which were taken up. Also, the University currently has 42international collaborations/linkages.

**c. Community engagement:**

- Faculty members and students have conducted several awareness camps, field trips and socio-economic surveys to delve deep into the problems faced by the local community.

- Several programmes for the benefit of differentially-abled persons were conducted by Inter University Centre for Disability Studies (IUCDS). They include: Certificate courses in Ageing and Disability Management, counseling and training programs in management of behavioral problem among children, learning disabilities, Continuous Rehabilitation Education (CRE) program etc.

- Some of the major programmes include competition for college students on paper presentation, lectures in colleges and schools for promoting Nanoscience and Nanotechnology, legal aid programmes and legal literacy camps, south Indian level management meets etc.

- The University has successfully completed a programme on waste management with the support of Kerala Biotechnology Commission.

- Spend a Day in Campus is an environmental awareness programme regularly conducted by Advanced Center of Environmental Studies and Sustainable Development (ACESSD) for school students.

**d. Human resource planning and development:**

There is a Planning Board which formulates and visualizes the overall planning of the university. This board has the Vice-Chancellor, Governor's nominee, Higher education secretary, 3 members nominated by VC amongst Directors' of statuary departments, a nominee from State

Planning Board, a nominee of the UGC, Registrar and Finance Officer as members. It provides suggestions on policies and programmes of the University. The P&D Section supervises and directs the various projects and funds received in the university. Some of the major activities carried out:

• Preparing Five Year Plan Proposal for the University

• Preparation of proposals for Government of Kerala, Planning Commission, UGC, RUSA and other national and International funding agencies.

• Implementing special schemes of Government of Kerala to University.

Some of the salient aspects of human resources planning and development taken up are the following:

• Schools/Departments encourage teaching and non-teaching staff to attend workshops, seminars and training programmes, orientation courses and refresher courses organized by the Academic Staff Colleges and other academic institutions. The Schools also organize several national and international level workshops, conferences and seminars.

• Human resource development for students is achieved through regular curriculum development, analytical teaching, practical training, projects and industrial visits. A placement cell also functions in the University.

• Guest faculties are appointed from time to time to complete the additional workload. The University schools give thrust on conducting training programmes in technologies like remote sensing, GIS, GPS, use of sophisticated instruments and analytical techniques etc. The schools ensure quality among students and staff through enrichment programmes conducted occasionally.

• The specific strengths of the students are sharpened and they are given training in research to generate productive and employable intellectual workforce.

e. **Industry interaction:**

• Industrialists are invited for curriculum revision process, lectures and seminars, industrial visits, internship and placement activities, patenting, industry funded projects etc. This facilitates building active relationships with industries. The university has identified a list of experts from industry to be invited as resources persons for discourses and lectures.

• For training and placement related services, the schools have linkages with leading business companies. Visiting resource persons from the industries give lectures to ensure industry interaction.

• The schools undertake research on various aspects of Environment Science

and Management like pollution control and remediation in collaboration with industries. One day job hunting programme was organized by M/s. Metrohm in association with School of Environmental Sciences.

- The university has been able to establish research interaction with Arjuna Natural Extracts, Alwaye in a research programme supported by KSCSTE. Molecular mechanism of anti-diabetic activity of *Costuspictus* has been taken up under industry linked biotechnology programme, (sanctioned by Kerala Biotechnology Commission) with industry partner-Arjuna Natural Extracts, Alwaye.

- Companies such as Asian Paints, Apollo Tyres, MRF Tyres regularly interact with International and Interuniversity Centre for Nanoscience and Nanotechnology and School of Chemical Sciences for undertaking joint projects, patents, seminars and placement programmes.

- There was a three day National Workshop on Molecular Docking and Drug Designing in Collaboration with Bio Discovery Group Life sciences, Bangalore.

- The University is in the process of initiating a course on Quality Control and Quality Assurance in Food industry in collaboration with Shimadzu.

**f. Internationalization:**

- **Obama-Singh 21st Century Knowledge Initiative (2012)**: Mahatma Gandhi University, Kottayam was selected for Obama-Singh 21st Century Knowledge Initiative by the University Grants Commission. The project involves collaborative research and related academic activities with Brown University, Duke University and Plymouth State University of USA. The joint venture, titled 'An Interdisciplinary and Community Oriented Innovative Approach towards Sustainable Development', witnessed collaboration in various spheres of activity between the School of Environmental Sciences and the Advanced Centre of Environmental Studies and Sustainable Development with the Department of Civil Engineering(of Brown University), the Centre for Environmental Implication of Nanotechnology (of Duke University) and the Department of Social Sciences (of Plymouth State University).

- There is a global understanding between North Carolina Agricultural and Technical State University (NCAT) and Mahatma Gandhi University to conduct various Massive Open Online Courses (MOOCs).

- The School of International Relations and Politics has three Memoranda of Understanding (MoU) signed with three universities/institutes. A MoU between the Institute of Political Studies (IEP) of Rennes, France and the School of International Relations and Politics, Mahatma Gandhi University has been in place. As part of this, French students have been admitted to the

MA Programme to do two semesters in the School. There is another MoU with the Sciences Po Bordeaux (IEP), France and students from France are admitted for two-semester studies in SIRP. Scholars from China also keep visiting SIRP in accordance with the Memorandum of Understanding (MoU) signed with the Institute of Chindian Studies, Jinan University, China in 2011.

- International and Interuniversity Centre for Nanoscience and Nanotechnology and School of Chemical Sciences have signed a large number of MOU's with academic institutes worldwide.

- Certain faculty members having adequate international teaching and research experience have been appointed as regular faculty of the university.

- International experts are invited to deliver seminars and interact with the students.

- Faculty members are also doing collaborative research with reputed international organizations. Faculty members have collaborated with academics from international universities to undertake joint research programmes and to publish research papers.

- Faculty members of the Schools have participated in international conferences held abroad viz., France, Russia, Slovenia, Germany, Spain, Austria, Poland, Czech Republic, Belgium, Italy, Brazil, USA, China, Japan, Korea, Thailand, Dubai, Singapore and Malaysia as plenary, keynote and invited speakers. Some of them chaired sessions too.

- Some students have done their internships abroad and participated in conferences/workshops and made notable contributions to science.

- Some students have won international awards and medals. The university gives the students unlimited computer and internet access which helps them to access open courses put up by world class universities and other learning material. They are given good guidance regarding further learning and career opportunities. Students get to interact with many researchers of international repute during workshops and seminars. During international conferences, brainstorming sessions are held to formulate international joint projects supported by Horizon 2020 (EU supported) and other bilateral projects supported by UGC, DST and DBT with the rest of the world.

### 6.2.2 Describe the university's internal organizational structure and decision making processes and their effectiveness.

There is well structured organizational set up and decision making system in the University. The provisions laid down in the Statutes of Mahatma Gandhi University, UGC/Government - guidelines are strictly adhered to in making policy decisions on many issues. At the macro level, the Vice-Chancellor is

the Principal Executive Officer, whereas the Registrar is the administrative Head.

The following are the major bodies of authority/decision making of the university:

- The Syndicate
- The Senate
- The Academic Council
- The Faculties
- The Boards of Studies
- The Planning Board

The **Syndicate** is the chief executive body of the university and consists of 25 nominated members. The executive powers of the university including the general management and control over all the institutions are vested in the Syndicate.

The **Senate** is the advisory body and assumes the following powers and functions:

a. To review, from time to time, the general policies and programmes of the university;

b. To suggest measures for the improvement and development of the university;

c. To consider the annual report and the annual accounts of the university and the audit report on such accounts and to pass resolutions thereon;

d. To advise the Chancellor on any matter referred to by him for advice.

It has 133 members, of which 23 are ex-officio members, 19 are members nominated by the Chancellor and the rest are elected members.

**The Academic Council** acts as the principal academic body of the university. Academic Council is responsible for the maintenance of standards of instructions, research, education and examination. It consists of 93 members. The Academic Council also co-ordinates and exercise general supervision over the academic programmes and policies of the university.

**The Faculties** are responsible for making recommendations and suggestions to the Academic Council on matters related to the organization of teaching, course of study, examinations, and research in the subject of study. There are 16 Faculties in the University. Dean is the head of each faculty. Also, Deans Committee can propose amendments to ordinances and regulations relating to academic matters for the consideration of the Academic Council.

**Boards of Studies** are the academic bodies monitoring the work of subjects of study. There are separate Boards of Studies, a total of sixty-nine in number for under graduate and post graduate studies.

**The Planning Board** advises the Syndicate and the Academic Council on any matter, which it considers necessary for fulfillment of the objectives of the University. It has 11 members.

## THE HIERARCHY OF THE UNIVERSITY ADMINISTRATION

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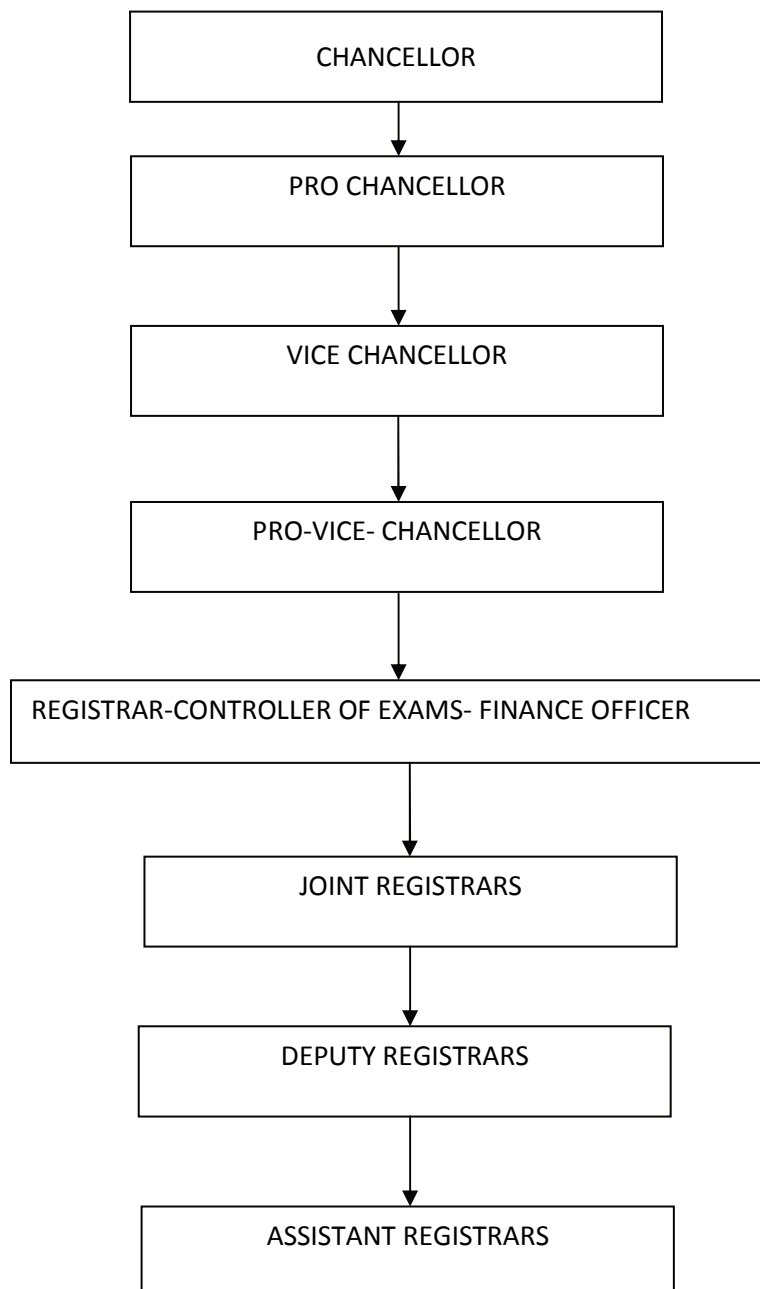
### 6.2.3. Does the university have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?

Yes. In order to ensure quality in academics, research and administration, university has developed a system. It involves planning, coordination, implementation and evaluation. Competent committees are constituted for the purpose.

- Faculty Councils of respective Schools/Centres frequently meet, discuss and make recommendations on academic priorities of the institution to the university.

- The feedback mechanism is constituted to gather inputs from students, researchers and stakeholders making improvements and taking corrective measures in performance of academic and non-academic departmental functions.

- The teaching staff is encouraged to attend periodic refresher and orientation programmes, seminars/workshops to enhance their field of expertise and knowledge.

- Boards of Studies in every discipline, Faculties and its Deans and Academic Council ensure quality in curriculum development and in revamping programmes according to the requirement.

- The university has an effective internal coordination and monitoring mechanism at the level of Deans through Deans Committee.

- The Syndicate meets generally once in a month.

- The doctoral Committee monitors the progress of the work by research scholars at every stage. Persons with subject expertise were constituted from external organizations to independently evaluate the research progress and thus to ensure quality in research.

- An effective IQAC consisting of various stakeholders constantly meet to discuss matters related to academic quality and submit proposals for quality enhancement

- Constant review meetings are held by the Vice-Chancellor with the Deans and Directors/HOD of Schools/Centres and the Principals of affiliated colleges to discuss matters of academic importance.

- The Registrar conducts formal meetings with the administrative staff frequently and the Vice-Chancellor meets them occasionally to review administrative progress.

- Record of attendance is automated through digital punching system to ensure regularity and punctuality among employees of the university.

**6.2.4 Does the university encourage its academic departments to function independently and autonomously and how does it ensure accountability?**

Yes. Every statutory School and Centre has a Director and a Faculty Council. They are independent and autonomous in academic matters.

- Board of Studies (BOS) of each department decides on new courses and the course content is framed by Faculty. The recommendations of the BOS are ratified by the Academic Council.

- The Faculty Council takes decisions in a collective manner. Schools are provided with provisional funds to meet all contingency expenses, including purchases up to a particular limit.

- Schools and Centres have the freedom to invite experts and organize seminars, workshops and conferences.

- Schools and Centres being autonomous are given the freedom to conduct examinations and assessments.

- Academic audit, cross verification of exam related matters, financial audits, administrative control etc. are in place to ensure accountability.

**6.2.5. During the last six years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the courts on these issues?**

Yes. The details of cases are given below:

| Year | No. of cases |
|------|--------------|
| 2011 | 323 |
| 2012 | 213 |
| 2013 | 268 |
| 2014 | 233 |
| 2015 | 297 |
| 2016 | 194 |

The cases were filed concerning the following areas:

a) Service matters- appointment, promotion, disciplinary action and seniority of teaching and non-teaching staff.

b) Students' matters- admission, examinations, attendance etc.

The judicial verdicts on all such cases are strictly followed and enforced in a time bound manner.

**6.2.6. How does the university ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder-relationship?**

- The university has a well-established mechanism to address the grievances of students, faculty members, non-teaching staff and general public.

- The faculty council of various schools/departments, chaired by the HOD, takes care of the issues of the students.

- There are various committees to take care of student's issues viz., anti-ragging committee, permanent cell to combat sexual harassment etc. These committees work independently on the complaints given by students/staff and report to higher authorities for further action. The students can also availthe services of the SC/ST cell of the University.

- Students have facilities within the university for getting their grievances redressed. Grievances are addressed at the first level by the Faculty Advisor followed by the Faulty Council. Grievances which are not resolved at the School/Centre level are considered by the University Grievance Redressal Cell.

**6.2.7 Does the university have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?**

   **Yes,**

- Feedback from the students is obtained to assess the working of the Schools and Centres of the university.

- Specific student feedback on programmes, courses, teaching and evaluation methodology are also collected and analyzed.

- Faculty council uses the feedback for improving the existing academic programmes and administrative protocols.

**6.2.8. Does the university conduct performance audit of the various departments?**

Yes. Quarterly performance report of the Schools are collected, assessed and submitted to the Chancellor. Also, all the faculty members of the university prepare their Performance Based Assessment Report annually and these reports are audited by IQAC. IQAC Team headed by the Vice- Chancellor visits all the Schools and centres to assess the performance.

### 6.2.9. What mechanisms have been evolved by the university to identify the developmental needs of its affiliated institutions?

- University adopts proactive steps to identify the developmental needs of its affiliated institutions.

- The College Development Council (CDC) co-ordinates the faculty improvement and research projects/programmes of the affiliated colleges and also guides them to get grants from the UGC and other funding agencies.

- University organizes workshops on NAAC accreditation, choice-based credit and semester system, research methodology, conducts refresher and orientation programmes for college teachers etc. helping colleges to develop and grow independently.

- Faculty members are on the Boards of Studies of the affiliated autonomous colleges which helps in effective academic linkage.

- Sharing of research and library resources to the college students and teachers is another major facet. College students are allowed to do summer projects in the university.

### 6.2.10. Does the university have a vibrant College Development Council (CDC) / Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements.

- Yes. There is an active College Development Council (CDC) headed by a senior faculty member of the university and guided by an Advisory Committee headed by the Vice-Chancellor.

The following activities and achievements are reported during the assessment period.

Faculty Development Programmes: 235 teachers participated

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| Minor Research Projects | 295 | 425 | 373 | 77 | |
| Major Research Projects | 28 | 12 | 4 | | |
| UGC Sponsored seminars | 85 | 61 | 122 | 84 | |
| Non-UGC Sponsored seminars | 2 | 4 | 1 | 2 | |

| Development Assistance (no of colleges): infrastructure development( digital labs, library, class rooms etc) | 55 | 74 | 119 | Nil | |
|---|---|---|---|---|---|
| Colleges with Potential for Excellence | - | - | 2 | 9 | 6 |
| No of colleges conducting Career Oriented Add-on programme | 25 | 28 | 28 | 28 | 28 |
| Skill Development Programmes (Community Colleges,B Voc,Kaushal Kendra,ASAP | | | 8 | 22 | 26 |
| Substitute Approval Given | 54 | 40 | 49 | 21 | 85 |
| Special Heritage Status to College | | | | Forwarded application of Maharajas College, Ernakulum | CMS College,Kottayam awarded Rs. 4.08 crores by UGC. |

## 6.3 Faculty Empowerment Strategies

### 6.3.1 What are the efforts made to enhance the professional development of its teaching and non-teaching staff?

Involvement in research activities is treated as one of the outlets for exposing the professional talents of the teaching faculty. Acknowledging this fact, the institution promotes all initiatives on the part of the teaching faculty for research oriented programmes. They include:

- Wholehearted support to the faculty to pursue their Ph.D by rendering them the facilities of Faculty Development Programme (FDP).

- Encouraged to conduct sponsored and self-funded national and international seminars, workshops and conferences in the campus to gain exposure on the emerging trends.

- Gives ample support for applying for patents and publication of peer reviewed as well as non-peer reviewed papers in research publications.

- Duty leave is sanctioned to those who attend seminars, camps, conferences, refresher and orientation courses. Leave with service benefits are given to teachers for undertaking post-doctoral research. Many facilities like sabbatical leave, study leave, travel grants, special casual leave etc. are provided to faculty members. Provision is made for reorganizing the teaching schedule to facilitate research work.

- The University encourages and sponsor teachers to attend seminars, conferences and workshops related to quality enhancement, technology upliftment etc.

- Experts from other institutions are invited to deliver lecturers which helps faculty empowerment.

- Workshops on innovative teaching methods including use of ICT are organized.

- Provides the latest technological aids, ICT facilities and training, besides full time internet facility, to enhance the professional competence of the staff.

- Teachers have been advised to find diverse funding agencies for conducting research projects.

- Orientation programmes aimed towards reorienting the faculty and non-teaching staff towards their profession is handled by renowned academics and trainers.

- Takes due care to promote the professional competence of its non-teaching staff also. Latest electronic gadgets have been provided for the effective implementation of the administrative decisions of the university. They are encouraged to develop and sharpen their personal and administrative capabilities. The institution ensures the effective functioning of the non-teaching staff through regular monitoring. The non-teaching staff is given yearly orientation classes to improve their quality and to familiarize them with the latest technological advancement necessary for the effective functioning of the institution.

- The university regularly conducts national/international seminars/conferences, faculty development programmes/ refresher courses /workshops to improve the skills of its faculty members.

- Eminent academics and scientists are invited to give talks for the enrichment of students and faculty members.

- The university has begun computerization of the administrative/ academic and financial procedures to streamline governance.

- Staff are given hands on training to implement innovative programmes.

- Moreover, they are sent to other institutions to undergo various training programmes organized by universities/ management/ administrative bodies.

- The institution has made adequate budget allocations from its own financial resources to help the staff members in their quest for professional development.

- Extended library and internet facilities, latest laboratory equipment are made available for staff members to pursue research.

- The faculty members who complete their PhD while in service are duly recognized and rewarded with additional increments.

- The staff who have obtained awards/recognitions from external agencies are felicitated.

- Collaborative programmes with industry and other institutions in strengthening faculty development programmes.

- Has also subscribed to INFLIBNET, EBSCO membership through N-LIST programme which gives access to 2500 e-Journals and 55000 e-Books.

- The library staff is nominated for various conferences and workshops on knowledge management and other emerging areas.

### 6.3.2 What is the outcome of the review of the various appraisal methods used by the University? List the important decisions.

The important appraisal methods used for evaluating the faculty members are:

Performance based appraisal system for promotion under Career Advancement Scheme (CAS), annual self-appraisal of the teachers and student assessment of the teachers. These appraisal methods have enabled to improve the teaching, learning and evaluation activities as well as the co-curricular, extension and professional development of the teaching community. The appraisal and the assessment reports help to give concrete suggestions to the faculty for betterment in their weaker areas, thus form a mechanism for teacher improvement.

The University Research Committeee (URC) monitors the research activities, and put forth recommendations and suggestions for improvement. It also

formulates measures for maintaining the quality of research in the university schools/centres.

### 6.3.3 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have benefited from these schemes in the last six years? Give details

- Provides accommodation facilities to both teaching and non-teaching staff on a priority basis.

- Provident fund facilities.

- Emergency healthcare facility.

- Transport facility.

- The university also provides other welfare schemes for its teaching and non-teaching staff. They are;
    - ✓ Medical Reimbursement
    - ✓ House loan
    - ✓ Group Insurance Scheme and Life Insurance Scheme- 100% of the teaching and non-teaching staff are covered under this scheme.
    - ✓ Facility of Day Care in the campus

- Besides there is an Employees Cooperative Society which caters to the financial and social needs of its members offering several welfare schemes, like ordinary/short term financial loans, education loan, consumer loan, housing loan and advance payment against salary. A vast majority of the teaching and non-teaching staff make use of these facilities.

### 6.3.4 What are the measures taken by the university for attracting and retaining eminent faculty?

- The selection to various faculty positions in the university is merit based, adhering to the existing government regulations on community reservations.

- Vacant positions and opportunities in the university are widely publicized through reputed print media and university web site.

- Facilities available in the university are highlighted to attract talented faculty.

- Networking with reputed industries/institutions.

- Existence of merit based and timely promotions of faculty.

- Greater opportunities and support for career advancement.

- Attractive incentives to international faculty to take academic sessions on sabbatical.

- Financial support for research/ paper publications.

- Complete freedom in academic work.

- Providing excellent laboratory facilities.

- Encouragement for taking up research projects.

- Excellent infrastructural facilities are provided to academic.

- Facilities for carrying out collaborative research works with institutions at the national and international levels.

**6.3.5   Has the university conducted a gender audit during the last four years? If yes, mention a few salient findings.**

- Yes. The university conducts gender audit to ensure gender equality and to promote balanced gender based opportunities in the university.

| Staff | | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|---|---|---|---|---|---|---|---|
| Teachers | Women | 34 | 34 | 34 | 33 | 33 | 25 |
| | Men | 75 | 75 | 72 | 72 | 70 | 65 |
| Non-Teaching staff | Women | 603 | 601 | 579 | 582 | 569 | 631 |
| | Men | 1210 | 1221 | 1135 | 1108 | 1049 | 988 |
| Students | Women | 5195 | 5201 | 5095 | 5225 | 5209 | 5171 |
| | Men | 1922 | 1938 | 2001 | 1938 | 1999 | 1996 |

**GENDER AUDIT (PG STUDENTS)**

The Salient features noted are as follows:

1)      More than70% PG students are women.

2)      More than 85% M.Phil students are women.

3)      More than 60% research scholars are women.

4)      Among faculty members, 72.22% are men and 27.78% women.

5)      Among non-teaching staff, 61.02% are men and 38.98 % women.

### 6.3.6 Does the university conduct any gender sensitization programmes for its faculty?

The Mahatma Gandhi University celebrates international days like Women's Day, Malala Day, Mother's Day, etc. Faculty and students attend various women empowerment programmes conducted by the Women's Club of the University.

### 6.3.7 What is the impact of the University's Academic Staff college Programmes in enhancing the competencies of the university faculty?

The university does not have an Academic Staff College. Despite the absence of such an institution, the university regularly conducts empowerment programmes for its teaching faculty. It also encourages and sends teachers for faculty development programmes carried out by other universities/ institutions.

## 6.4 Financial Management and Resource Mobilization

### 6.4.1. What is the institutional mechanism available to monitor the effective and efficient use of available financial resources?

- The administration of budget is under the supervision of the Vice Chancellor and Registrar. Specified financial powers are ensured for the Vice Chancellor, Registrar and Heads/Directors of the Schools/Centres.

- The Statutory Finance Committee of the Syndicate meets at least once in every three months to review the financial position of the university and to scrutinize the proposals for receipts and expenditure. The finance wing of the university under the Finance Officer monitors the effective and efficient use of financial resources. Budget is prepared every year and allocation is made under different heads for various activities of the institution.

  The institutional mechanism was constituted to monitor the use of financial resources effectively that includes the following measures:

  ➢ Identification of priority requirements needed for various academic and infrastructural needs.

  ➢ Allocation of budget based on identified priorities and re-allocation of grants for meeting the desired objectives.

  ➢ Strategies for mobilization of financial resources by following transparency and procedural rules for effective monitoring of expenditure.

### 6.4.2. Does the University have a mechanism for internal and external audit? Give details

- There is a pre-audit mechanism for auditing all expenses of the university.

- Kerala State Audit Department, is conducting concurrent audit of all transactions of the university.

- Apart from the above, the annual accounts are audited by the office of the Accountant General.

### 6.4.3 Are the institutions accounts audited regularly? Have there been any major audit objections, if so, how were they addressed?

Yes. Audit objections/observations raised through financial audits have been regularly addressed and corrective steps have been taken by the university. One of the major audit objections raised by the audit wing was in connection with the practice of awarding construction projects to Central Public Works Department (CPWD) of Government of India without open tenders, and accordingly e-tender mechanism has been introduced.

### 6.4.4 Provide audited income and expenditure statement of academic and administrative activities of the previous six?

- Audited Income & Expenditure Statement for the Year 2010-2011

| Income | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Grants from State Government-Non-Plan | 3098 |
| Grants from State Government-Plan | 800 |
| Grants from U G C –Plan | 310.12 |
| Internal Receipts- Affiliation Fee, Exam Fee, Certificates fee etc | 3457.66715 |
| Other Grants from State Government | 910.5 |
| Research Projects | 549.50971 |
| Scholarships/ Fellowships | 332.90483 |
| Others | 33.76226 |
| **Total** | **9492.46395** |

| Expenditure | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Salary, Pension | 5886.799 |
| General & Administrative Expenses-Non-Plan | 319.8936 |
| Examination Expenses | 1053.093 |
| Academic Departments-Recurring Expenses | 50.03999 |
| Academic Centre- Recurring expenses | 0.00 |

| | |
|---|---|
| Other Departments- Physical Education , DSS etc-Recurring expenses | 69.27385 |
| Grants & Scholarships | 102.3543 |
| Miscellaneous | 12.81514 |
| General & Administrative Expenses-Plan(Non-Recurring) | 244.8744 |
| Academic Departments-Non-Recurring Expenses | 465.0315 |
| Academic Centres- Non-Recurring expenses | 0.00 |
| Other Departments- Physical Education , DSS etc-Non-Recurring expenses | 593.042 |
| Research Projects | 1339.243 |
| Scholarships/ Fellowships | 143.2163 |
| Others | 44.65244 |
| **Total** | **10324.33** |

- Audited Income & Expenditure Statement for the Year 2011-2012

| Income | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Grants from State Government-Non-Plan | 371.6 |
| Grants from State Government-Plan | 1000 |
| Grants from U G C -Plan | 627.7548 |
| Internal Receipts- Affiliation Fee, Exam Fee, Certificates fee etc | 4177.405 |
| Other Grants from State Government | 244 |
| Research Projects | 799.8491 |
| Scholarships/ Fellowships | 522.0676 |
| Others | 56.76825 |
| **Total** | **11145.45** |

| Expenditure | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Salary, Pension | 7859.209 |
| General & Administrative Expenses-Non-Plan | 319.7995 |
| Examination Expenses | 1443.219 |
| Academic Departments-Recurring Expenses | 47.6803 |
| Academic Centre- Recurring expenses | 0 |
| Other Departments- Physical Education , DSS etc-Recurring expenses | 82.46937 |
| Grants & Scholarships | 111.0341 |
| Miscellaneous | 22.95858 |
| General & Administrative Expenses-Plan(Non-Recurring) | 113.416 |

| | |
|---|---:|
| Academic Departments-Non-Recurring Expenses | 313.2135 |
| Academic Centres- Non-Recurring expenses | 0 |
| Other Departments- Physical Education , DSS etc-Non-Recurring expenses | 1259.237 |
| Research Projects | 657.8938 |
| Scholarships/ Fellowships | 269.4692 |
| Others | 9.45748 |
| **Total** | **12509.06** |

- Audited Income & Expenditure Statement for the Year 2012-2013

| Income | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Grants from State Government-Non-Plan | 4528 |
| Grants from State Government-Plan | 1400 |
| Grants from U G C -Plan | 217.06 |
| Internal Receipts- Affiliation Fee, Exam Fee, Certificates fee etc | 4865.556 |
| Other Grants from State Government | 550 |
| Research Projects | 468.7142 |
| Scholarships/ Fellowships | 298.4616 |
| Others | 53.91 |
| **Total** | **12381.7** |

| Expenditure | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Salary, Pension | 9883.47 |
| General & Administrative Expenses-Non-Plan | 328.4881 |
| Examination Expenses | 1660.515 |
| Academic Departments-Recurring Expenses | 60.82387 |
| Academic Centre- Recurring expenses | 47.68095 |
| Other Departments- Physical Education , DSS etc-Recurring expenses | 85.99962 |
| Grants & Scholarships | 58.09979 |
| Miscellaneous | 10.58399 |
| General & Administrative Expenses-Plan(Non-Recurring) | 152.4976 |
| Academic Departments-Non-Recurring Expenses | 408.498 |
| Academic Centres- Non-Recurring expenses | 366.5215 |
| Other Departments- Physical Education , DSS etc-Non-Recurring expenses | 851.5972 |
| Research Projects | 810.5997 |
| Scholarships/ Fellowships | 413.3836 |
| Others | 22.88327 |
| **Total** | **15161.64** |

- Audited Income & Expenditure Statement for the Year 2013-2014

| Income | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Grants from State Government-Non-Plan | 3990 |
| Grants from State Government-Plan | 1600 |
| Grants from U G C -Plan | 337.74 |
| Internal Receipts- Affiliation Fee, Exam Fee, Certificates fee etc | 6154.956 |
| Other Grants from State Government | 0 |
| Research Projects | 649.2815 |
| Scholarships/ Fellowships | 335.6521 |
| Others | 311.3887 |
| **Total** | **13379.02** |

| Expenditure | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Salary, Pension | 10311.67 |
| General & Administrative Expenses-Non-Plan | 412.9259 |
| Examination Expenses | 1629.577 |
| Academic Departments-Recurring Expenses | 52.69909 |
| Academic Centre- Recurring expenses | 78.4576 |
| Other Departments- Physical Education , DSS etc-Recurring expenses | 58.70481 |
| Grants & Scholarships | 157.0008 |
| Miscellaneous | 10.08872 |
| General & Administrative Expenses-Plan(Non-Recurring) | 11.09216 |
| Academic Departments-Non-Recurring Expenses | 231.8978 |
| Academic Centres- Non-Recurring expenses | 431.0571 |
| Other Departments- Physical Education , DSS etc-Non-Recurring expenses | 726.5627 |
| Research Projects | 580.9308 |
| Scholarships/ Fellowships | 383.3289 |
| Others | 239.6784 |
| **Total** | **15415.5** |

- Audited Income & Expenditure Statement for the Year 2014-2015

| Income | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Grant from state Government- Non- Plan | 7182 |
| Grant from state Government- Plan | 2150 |
| Grant from UGC -plan | 0 |
| Internal Receipts- Affiliation Fee, Exam Fee, Certificates Fee, ect | 7284.15706 |
| Other Grant from State Government | 100 |
| Research Project | 468.64025 |
| Scholarships/ Fellowships | 97.78823 |
| **Others** | 57.80731 |
| **Total** | **17340.39285** |

| Expenditure | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Salary, Pension | 11445.41 |
| General & Administrative Expenses-Non-Plan | 1072.142 |
| Examination Expenses | 1699.805 |
| Academic Departments-Recurring Expenses | 76.71148 |
| Academic Centre- Recurring expenses | 98.3975 |
| Other Departments- Physical Education , DSS etc-Recurring expenses | 267.9188 |
| Grants & Scholarships | 152.6465 |
| Miscellaneous | 8.04358 |
| General & Administrative Expenses-Plan(Non-Recurring) | 313.8549 |
| Academic Departments-Non-Recurring Expenses | 310.1476 |
| Academic Centres- Non-Recurring expenses | 305.6284 |
| Other Departments- Physical Education , DSS etc-Non-Recurring expenses | 1424.56 |
| Research Projects | 638.4827 |
| Scholarships/ Fellowships | 106.5261 |
| Others | 435.7539 |
| **Total** | **18356.03** |

- Audited Income & Expenditure Statement for the Year 2015-2016

| Income | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Grants from State Government-Non-Plan | 8618.4 |
| Grants from State Government-Plan | 2300 |
| Grants from U G C -Plan | 112.5 |
| Internal Receipts- Affiliation Fee, Exam Fee, Certificates fee etc | 6956.254 |
| Other Grants from State Government | 0 |
| Research Projects | 482.38 |
| Scholarships/ Fellowships | 54.01718 |
| Others | 11.0158 |
| **Total** | **18534.57** |

| Expenditure | |
|---|---|
| **Item** | **Amount (Rs.in lakhs)** |
| Salary, Pension | 12409.14 |
| General & Administrative Expenses-Non-Plan | 514.6057 |
| Examination Expenses | 1905.302 |
| Academic Departments-Recurring Expenses | 169.418 |
| Academic Centre- Recurring expenses | 92.41606 |
| Other Departments- Physical Education , DSS etc-Recurring expenses | 587.0389 |
| Grants & Scholarships | 243.0593 |
| Miscellaneous | 80.20441 |
| General & Administrative Expenses-Plan(Non-Recurring) | 864.3152 |
| Academic Departments-Non-Recurring Expenses | 438.9014 |
| Academic Centres- Non-Recurring expenses | 140.9498 |
| Other Departments- Physical Education , DSS etc-Non-Recurring expenses | 839.0251 |
| Research Projects | 224.1647 |
| Scholarships/ Fellowships | 89.21451 |
| Others | 12.20466 |
| **Total** | **18609.96** |

### 6.4.5. Narrate the efforts taken by the University for Resource Mobilization?

- University receives huge quantum of funding from many funding agencies such as DST, DBT, DRDO, UGC, AICTE, ISRO, ICSSR, DRNS, UGC-DAE, TWAS, DIT etc.

- University also receives industrial funding from MRF Tyres, Apollo Tyres, General Cables, USA, Surface Treat, Czech Republic etc.

- University also receives international funding through DST-DAAD, DST-Italy, DST-Poland, DST-South Africa, DST-Croatia, India-Sweden project etc.

- University encourages faculty members to get funding from external funding agencies.

- University is revising the fees for various services, from time to time.

- Schools/Centres are encouraged, to augment the resources through Department Developmental Fund.

- Generating consultancy services – testing and instrumentation charges.

- Resources are generated from external funding agencies for conducting seminars, conferences and workshops.

### 6.4.6  Is there any provision for the university to create a corpus fund? If yes, give details.

Yes. University is authorized by relevant University Act to create a corpus fund. Corpus fund is generated through various sources and is kept as fixed deposit in the State Bank of Travancore.

### 6.5    INTERNAL QUALITY ASSURANCE SYSTEM

### 6.5.1  Does the university conduct an academic audit of its departments? If yes, give details.

Yes. Internal academic auditing mechanism is in place.  The academic audit was performed for all the University Departments. The IQAC expert committee led by the Vice Chancellor has made periodic visits for conducting academic audit in various Schools. For auditing of the inter-university and interschool centres, the respective Directors were called for a presentation of their academic activities where they highlighted the strengths, weaknesses, opportunities and challenges. Suggestions for improvement were made through this brainstorming activity. Feedback of experts were taken up for remedial measures.

### 6.5.2 Based on the recommendations of the academic audit, what specific measures have been taken by the university to improve teaching, learning and evaluation?

Feedback obtained from the academic audit is communicated to the concerned Heads of the Schools/Centres for further improvement. The outcome is as follows:

- Traditional class rooms were converted into smart class rooms.

- Review and updating of syllabus, content and course structure were carried out through the CSS mechanism.

- New teaching methodologies like flipped class room, edmodo- an online interactive learning method, MOOC, Webinars etc were introduced.

- Interaction of students with external experts/visiting faculty through Erudite programme in which sixty eminent academics, including seven Nobel Laureates delivered lectures. Other programmes include Diplomatic Lecture Series, Industry-Institute interaction many a time involving alumni, Scholar-in-Residence Programme funded by the state Government, Memorial lectures held to commemorate the contributions of distinguished faculty who have served in different Schools etc.

- Freedom to select courses/electives within the programmes were introduced to help students.

- The system of assessment through continuous internal and end semester assessment has been further strengthened.

- Increase in the number of international and national seminars organized within and outside the campus.

- Number of MoU's with partnering organizations and academic collaborations has increased.

### 6.5.3 Is there a central body within the university to continuously review the teaching-learning process? Give details of its structure, methodologies of operations and outcome?

Teaching-learning processes are continuously reviewed by the Faculty Council at departmental level and Academic Council at university level. The process is also reviewed through the Performance Based Appraisal System (PBAS) and feedbacks from students. As a result, subsequent suitable modifications are done in syllabus, teaching and evaluation process, besides strengthening learning resources and facilities. Regular faculty council meetings discuss teaching – learning issues.

### 6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and process?

The IQAC has institutionalized several good practices to improve, assure and sustain quality in teaching, learning, research, infrastructural development and administration of the university. By introducing academic audit and administrative audit, IQAC facilitated internal quality checks for the university. Feedback in the form of surveys to assess teaching- learning process, socio-economic development, differential requirements of various stakeholders, pace of infrastructural development were taken up and qualitative measures were recommended for implementation. The IQAC has monitored self-appraisal by teachers and grievance redressal mechanism which are effective internal quality checks. IQAC evolved strategies to improve the academic and administrative functioning of the university through recommendations which were made after brainstorming.

### 6.5.5 How many decisions of the IQAC have been placed before the statutory authorities of the University for Implementation?

The recommendations on syllabus revision, website updating, web based solutions for efficient management of institutional data, infrastructure development, updation of existing facilities, barrier free transportation and accessibility, water conservation, well recharging strategies, energy audit, environment audit, gender audit, preparation of student profile report, honouring the PhD holders, faculty-publisher interface, national and international collaboration, comprehensive waste management etc., were placed before the authorities for approval and implementation. Forty decisions taken by IQAC for qualitative improvement in various spheres were placed before the statutory authorities of the university for implementation.

### 6.5.6 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members?

Yes. The valuable contributions of the external members including representatives of panchayatraj bodies, industry etc is notable. The industrial representative from MRF Ltd. gave directions for improving industry-university linkages. Active participation and practical suggestions from the part of external members have contributed to the decisions taken by the IQAC.

### 6.5.7 Has the IQAC conducted any study on the incremental academic growth of the students from disadvantage sections of the society?

Yes. The IQAC reviewed the academic growth of the students from disadvantaged sections of society and found a better performance and output from them, which may be attributed to the efforts taken by the university for providing them with proper support and facilities. A comprehensive student profile report was prepared after conducting a study among the students. An access audit was conducted to study the differential requirements of the

differently abled in achieving academic excellence and remedial measures were taken up.

**6.5.8    What policies are in place for the periodic review of administrative and academic departments, subject areas, research centers, etc.?**

- The IQAC conducts periodic review of the administrative and academic functioning of the university and academic departments and recommends suitable measures. Through academic and administrative audit, IQAC facilitated internal quality checks for the university.

- Academic autonomy is provided to Schools/Centres to offer academic programmes of global relevance, updating of curriculum, introduction of latest teaching-learning methodologies, to carry out cutting edge research activities, to enter into national and international academic collaboration, to carry out research projects through funding from various national and international funding agencies, to explore extension activities, to render consultancy services etc.

- Regular review meetings are held at the department level to formulate policies to strengthen the functioning of Schools/Centres which function as research centres in various domains of knowledge.

- Periodic research committee meetings to evaluate quality and progress of the research work carried out by the research scholars at the department level and also to resolve various administrative issues of research scholars.

- Evolving effective feedback mechanism from the stake holders.

- Carry out additional skill development programmes for the students.

- Augmenting research collaborations and linkages with leading institutions within the country and outside.

- Computerization of administrative, finance, examination, admission sections etc has resulted in the fast periodic review of various administrative functions.

# CRITERION VII: INNOVATIONS AND BEST PRACTICES

### CRITERIA VII: INNOVATIONS AND BEST PRACTICES

### 7.1 Environment Consciousness

The university took several initiatives towards generating environmental consciousness amongst its stakeholders through activities involving students, teachers, administrative staff and the general public. The main campus at the Priyadarsini Hills as well as the satellite campuses are maintained as eco-friendly models with greenery that reflects the environmental policy of the university. The university has introduced environmental studies as a component in all the UG and PG programmes.

The School of Environmental Sciences, a pioneer in the field of environmental studies and research organizes field training and awareness for college and school students under its 'One day in the campus' programme. Seminars/ workshops on environmental issues were conducted at national and international levels for the researchers and students. "Train the trainers programme on environmental management" is regularly conducted. The other important environment-related events conducted include
- World Wetland Day (February 2$^{nd}$)
- World Water day (March 22nd )
- Earth Day (April, 22nd)
- World Biodiversity Day (May 22)
- World Environment Day (June 5th)
- Ozone  Day(Sept 16)
- National Wildlife Week (October 2-8)
- A comprehensive field guide on the 'Butterflies of MG University Campus' was published.
- Booklets on themes like Water, Energy, Indoor Air Pollution, Health and Heavy Metals etc. were published by ACESSD to enhance environmental literacy and awareness among students and the general public.
- Programmes to enrich environmental consciousness were conducted   by the Nature Clubs of School of Environmental Sciences and School of Biosciences.  Nature study tours were also conducted to eco sensitive locations of Western Ghats.
- Students are made aware of the importance of sustainable growth and ecological issues by arranging talks under the auspices of the Nature Clubs.
- Extensive survey of the flora and fauna of the various campuses have been carried out.
- The university community participated in planting seedlings of trees of ever green species in collaboration with the Forest department.
- *Jeevaka Live Laboratory:* As an outcome of one of the group project

works of the PG students of this school, the university has declared a patch of land (12 ha. land ) as Live laboratory of the school and an option is given in the curriculum to monitor routinely the biodiversity, ecosystem process and eco-hydrology of this live laboratory. With this live laboratory, the students are getting field experience on what they were taught in the theory classes. The Jeevaka Live laboratory is the major watershed in the campus and the conservation of this area helps in water conservation too.

- *Butterfly Garden: The* School also maintains a butterfly garden since 2009. The PG students and PhD scholars maintain this unique garden in the campus.

- **Waste Management:** The School of Environmental Sciences has its own waste management system – mainly for the degradable waste. The school has installed a biogas plant of $0.75m^3$ capacity in its campus by using the fund raised by the school through one of its projects funded by DoECC – Dept of Environment and Climate Change, Govt of Kerala. This biogas plant is being used to manage the food waste of the school.

- **Energy Conservation:** The faculty and students of the school undertook a group project work to conduct an energy audit for the entire university campus. As a part of it, the Environment Science building was also audited and conservation measures suggested in the report are being followed.



MAHATHMA GANDHI UNIVERSITY CAMPUS
ECOLOGICALY SENSITIVE AREA

JEEVAKA
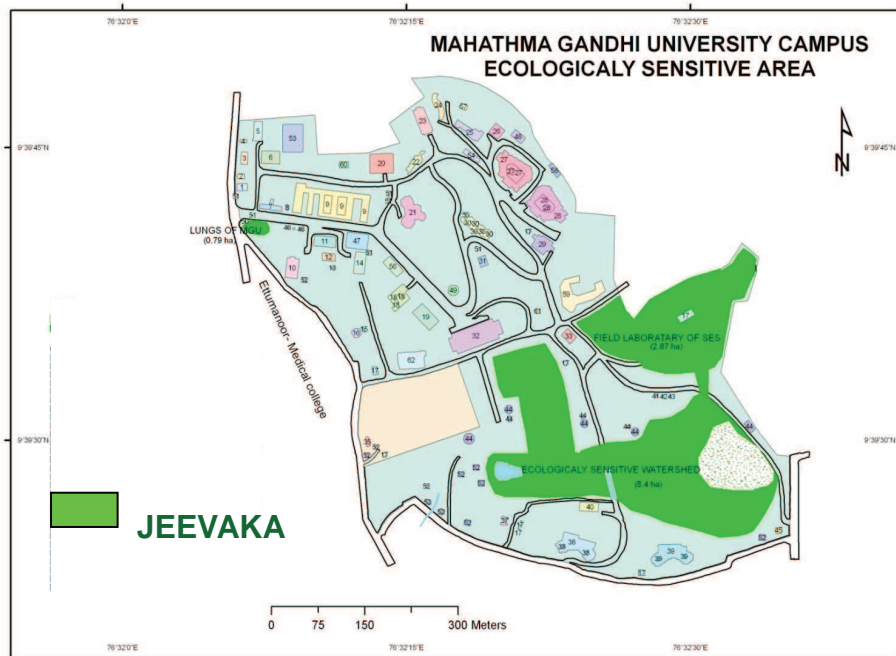
As had part of the *National Energy Conservation Day – 2015,* the MSc students of the school had undertaken a mini-project on reaching energy conservation at community level. This extension project with a main theme of *Social Education and creation of Environmental awareness* was started in January 2015 and continued till May 2015. In this work, 190 households spread across the state were studied. The students also did a survey of the electrical energy consumption at each household in the month of January 2015. Then they distributed pamphlets on energy conservation tips to each family and took a class on the same explaining the benefits to the household, nation and ultimately to the environment. The students have also followed-up each family once in every two months.

Result: Towards the end of this project in May 2015, the survey of electricity consumption was recorded in these 190 households and it was noted that these households have conserved 2585 units. The per capita electrical energy consumption has come down from 43 units to 39 units during the study period.

- **Water Harvesting:** In the student project report on solid waste management, it has been pointed out by the students that the campus has ample scope for roof top harvesting of rain water. Very recently the school has built a roof-top rainwater harvesting structure of 65,000 litres and developed a unique system as part of this rain water harvesting tank in which the coolant water from the water distillation stills are reused by circulating the water through the water harvest tanks, so that huge quantity of fresh water could be saved.

- **Check Dam:** Inside the Jeevaka Live Laboratory of the School of Environmental Sciences, there exists one check dam which was recently de-silted resulting in the strengthening of its walls thereby improving the percolation system. The Faculty members and students of the school played a pivotal role in this process.

- Many schools offer courses in Ecology and Environment as part of their PG, MPhil and PhD programmes.

### 7.1.1   Does the University Conduct a Green Audit of its Campus?

Yes. As part of the progressive efforts initiated by Mahatma Gandhi university towards a sustainable future, a comprehensive Green Audit has been conducted. The responsibility of conducting the Energy Audit was assigned to Kerala State Productivity Council –a Kerala state government undertaking and Environment Audit was assigned to the School of Environmental Sciences (SES). A team consisting of faculty members and students of the school has completed the task in a span of three months.

The entire MGU campus – for the convenience of conducting Environment Audit (EA) – was categorized in to four sectors, *viz.*: Academic,

Administrative, Residential and Cafeteria sectors. Environment Audit was conducted by collecting water and soil samples; conducting interviews with various stakeholders, questionnaire based surveys and intensive field studies.

Sufficient number of samples of water, soil and solid waste were collected from each sector cited, and the samples were analyzed using standard methods and statistical tools in order to arrive at proper conclusions.

The summary of the Audit findings are:

- **Water Audit**

The quality of water available in the various water resources of the campus were studied by collecting water samples and by conducting a survey on the quantum of water being utilized in the campus.

The findings indicate that most of the water samples tested for various parameters of water quality test are within the permissible limits of the BIS (Bureau of Indian Standards) standards prescribed for drinking purpose. However, a few samples exceed these limits. For instance, Coliform count – an important water quality parameter of drinking water – has exceeded the standard limit (which is 0 count) in 40% of the samples tested. Out of these, two samples have very high Coliform counts of 460 which indicate that this site / water body may be severely contaminated with fecal matter.

The survey on water consumption indicates the residential sector consumes the maximum quantum of water while the cafeteria sector consumes the least. More attention is needed to conserve water usage in all sectors as the campus faces water scarcity during the summer months.

- **Soil Audit**

Most of the tested soil samples indicate that they are acidic in nature; Carbon-Nitrogen (C/N) ratio was found to be less indicating the high nitrogen availability in the soil. High level of available phosphorus and potassium indicate the fertile nature of the soil.

- **Solid Waste Audit**

The quantity of solid waste being generated in the campus includes a total of 563 kg /day of food waste; 82.86 kg /day of paper waste and 31.04 kg of plastics /day. The major share of food waste in the total quantum of waste generated in the campus indicates that there exists scope for recovery of energy / manure from it provided proper waste management practices are implemented. As on date, two biogas plants are functional in the campus (One at School of Environmental Sciences and another one close to the canteen near to School of Pure and Applied Physics) and both these plants are being fed with food waste. Besides this, there exists no proper management practice

with the aim of recovery of material or manure or energy from the huge quantity of food waste being generated in the campus. In general, the current waste management practices of the campus need more improvement.

- **Biodiversity Audit**

The biodiversity of the MGU campus is rich with 268 identified plant species of which 19 are endemic. Faunal diversity is also rich with 168 species which include dragon flies, butterflies and birds. Jeevaka live laboratory is the major spot of biodiversity richness which needs proper fencing and conservation. The construction activities are identified as major threat to the campus biodiversity.

- **General Cleanliness and Sanitation Facilities Audit**

The findings of the social survey indicate that the university community is happy with the cleanliness being maintained in the campus with 100% of the survey respondents agree with this view. However in the academic sector, only75% of the respondents agreed with this view.

- **Energy Audit:**

A detailed energy audit was conducted by Kerala State Productivity Council, a Kerala Government undertaking in the main campus and nine other associate campuses. The audit covered electrical distribution system, energy consumption pattern, scope for energy efficiency, importance of lighting, air conditioning, water pumping system, captive power generation, system harmonics, renewable energy applications, infrared thermal imaging, energy conservation building code and carbon foot print etc. The audit helped the university to assess the amount and pattern of consumption of power and evaluate what measures can be taken to improve the efficiency. The annual electricity consumption in the main campus is 147920 KWH and that in the associated campuses is 145461 KWH. Based on the present energy consumption, certain proposals were put forward for reducing the energy consumption. These include:

1. Energy savings by replacing the old inefficient window AC unit at the administrative building (basement) by a new energy efficient AC unit.

2. Energy saving with the replacement of 36/40 Watts fluorescent Lamps connected at various buildings by energy efficient LED lamps of 18 Watts.

3. Replacement of incandescent bulbs and compact fluorescent by LED lamps at campus buildings.

4. Energy saving by replacing various types of lamps provided at outdoor areas of campus with LED lamp.

5. Energy savings by replacing ordinary ceiling fans (80 watts) provided at various buildings of MG University campus by 5 star rated energy efficient fan (50 watts).

6. Energy savings by operating the 40 HP pump solely for the water requirements in the campus instead of existing lower rated pumps and shifting the pump operation to off-peak period.

7. Energy savings by installing bio gas from food waste.

## 7.1.2 What are the initiatives taken by the university to make the campus eco-friendly?

### Energy Conservation

• University has taken measures to replace all incandescent light bulbs in the campus with energy efficient CFL/ LEDs in a phased manner.

• University has introduced energy efficient LCD and TFT computer monitors.

• Provision of master switch to enable to switch off all fans/ lights, at the end of work.

• Efforts have been made to enhance natural light and ventilation in new constructions enabling lesser consumption of electrical energy during the daytime.

### Use of Renewable Energy

• Efforts are underway to introduce roof-top solar power generators to generate solar power of 400 KWP in the main campus and to reduce conventional power consumption at an estimated cost of Rs.3,26,49,600/-.

One biogas plant of 3 cubic meter capacity that handles 125 kg of waste has been installed. The construction of a biogas plant with a capacity of 15 cubic meter which can handle 225 kg of biodegradable solid waste per day at an installation cost of Rs.5,00,000/- is underway.

### Water Harvesting

• Rain water harvesting has been done in a big scale in most of the existing buildings and the university has one of the biggest water conservation ponds in the country with a size of 53 m x 40 m x 22 m. It holds approximately 4.5 crores litres of water which meets the water needs of the university.

• Rain water harvesting features are made mandatory in all the new/proposed constructions in the university.

- A roof-top rainwater harvesting structure of 65,000 litres was installed in the School of Environmental Sciences as a pioneering project where the coolant water from the water distillation stills are reused by circulating the water through the water harvest tanks, so that a good quantity of fresh water could be saved.

- University initiated measures to recharge seven wells and one more quarry with rain water collected from roof top of buildings through an innovative well recharging mechanism.

**Check Dam Construction**

- There is one check dam which could hold 48 lakhs litres of water with a size of 80 m x 20 m x 3 m inside the Jeevaka Live Laboratory- the pristine 12 hectare protected major water shed in the campus. Recently the check dam has been de-silted and its walls have been strengthened and its percolation system has been improved by the university. The check dam which is maintained as part of this unique eco system holds rich flora and fauna and is a major source of water along with preventing soil erosion. It has resulted in enhancing ground water level in the area thereby enhancing the biodiversity of the campus. It also offers live field experience to students of environment sciences, as they regularly monitor the biodiversity, ecosystem process and eco-hydrology of this live laboratory.

**Efforts for Carbon Neutrality:**

- The University has initiated steps to implement e-governance in full scale to promote carbon neutrality in its campuses. Email communication along with web posting is promoted.

- The university has made the entire admission process paperless by introducing the facility of online submission of application forms.

- Use of rexine and other polymeric materials for advertisements are restricted in the campus.

- Continuous planting of indigenous tree saplings as part of greening the campus initiative is used to promote carbon neutrality.

**Plantation**

- Continuous planting of indigenous tree saplings as part of greening the campus initiative was undertaken by the various schools with the effective participation of students, staff, NSS volunteers, NCC cadets, Estates department and the public.

**Hazardous Waste Management**

- An efficient solid waste management system in the form of vermin-composting with the funding of KSCSTE and co-operation of local bodies was undertaken by School of Bio Sciences.

- The School of Environmental Sciences has installed a biogas plant of $0.75m^3$ capacity in its campus by using the fund raised by the school through one of its projects funded by Department of Environment and Climate Change (DoECC), Government of Kerala. This biogas plant is being used to manage the food waste generated in the premises.

- The wash from chemical waste is contained and stored in the sewage tanks which have concrete walls of 20cm thickness. Research laboratories adopt green routes for chemical reactions by using less toxic starting materials, solvents etc. thus reducing the stages of the synthetic routes and minimizing the waste as far as practically possible. By changing the methodologies of organic synthesis, health and safety is assured in the laboratories. To reduce the environmental impact of laboratory wastes, reuse or redistribution of the unwanted surplus materials and treatment and recycling are adopted. The university has also taken measures to avail the services of a consultant to supervise chemical waste disposal and initiated steps to dispose hazardous chemical waste in a permanent disposal facility with the help of licensed agencies.

**e-waste Management**

- The University has entered into a tie-up with Clean Kerala Company for the removal of e-waste from the campus through buy-back schemes. Effective implementation and monitoring of the programme has been done through National Service Scheme.

**7.2. Innovations**

**7.2.1 Give Details of Innovations Introduced During the Last Four Years Which have Created a Positive Impact on the Functioning of the University.**

Large numbers of innovative programs were introduced in frontier areas of knowledge, teaching, research, extension and consultancy. New academic programs were introduced in several schools and centres. New centres were started in frontier areas of science, technology humanities, social sciences and languages.

**Academic Initiatives and Innovations**

- As a new innovative initiative of the university, School of Tourism Studies, a regular statutory department was established in 2010 for skill development in the areas of tourism, hospitality and aviation. It also conducts fundamental and applied interdisciplinary research in key areas

like tourism resource mapping, destination development, visitor management systems and development of innovative travel related solutions.

- Under School of Behavioural Sciences, Inter University centre for Disability Studies was started in the year 2010. Institute of Research in Learning Disabilities was started in the year 2014. The Department of Indian Sign Language also was started in the year 2015 to train young professionals who can interpret and communicate in Indian Sign Language.

- Inter University centre for Social Science Research and Extension (IUSSRE) was established in 2010. This centre has been conceived as an interdisciplinary centre of excellence for Social Science research and extension. The centre comprises of the major interdisciplinary areas of emerging social importance in the context of globalization.

- Centre for High Performance Computing was established in 2010. This centre provides facility for efficient scientific computing for interdisciplinary research. The centre focuses on open access programs for the use of all.

- Inter University Centre for Biomedical Research and Super Speciality Hospital (IUCBR & SSH) was established in 2010. This Centre envisions to transform scientific breakthroughs into accurate diagnostic measures and into life-saving treatments for patients. The Centre has plans to establish a super-specialty hospital in the second phase with facilities to deal with emerging threats of viral, bacterial and other infectious diseases, immunity crisis, geriatric issues, developmental disabilities, infection and inflammation, the ageing body and brain, mitochondria & neurodegenerative diseases, brain injury and repair, mental health, metabolism, endocrinology and general health. Population health science; transplantation and regenerative medicine; genomics, children and women's health are the long-term priorities of the institute.

- Inter University Instrumentation Centre (IUIC) was established in 2011. This centre has been set up to serve the research communities in all the universities in Kerala by initiating advanced level research in various interdisciplinary areas which require state-of-the-art equipment facilities. This centre has acquired state of the art facilities from the Department of Science and Technology for characterization of materials.

- University Centre for International Co-operation (UCIC) was established in 2011. The main objective of this centre has been to explore the ways and means that shall facilitate international student's admission, collaborative teaching, research and outreach programmes with reputed institutions from abroad etc.

- Institute of Contemporary Chinese Studies (ICCS) was established in 2011.

- KN Raj Study Centre for Planning and Centre-State Financial Relations was established in 2011 and has started MA (Economics) programme.

- Advanced Molecular Materials Research Centre (AMMRC) was established in 2012 to perform advanced scientific research for the development of molecular devices.

- National institute of Plant Science Technology (NIPST) was established in 2012 to make advanced studies and research in the areas of plant science and plant based eco technologies.

- Inter University centre for Studies in Science of Music (IUCSSM) was established in 2012. This centre has been envisaged as an advanced research centre in the field of music and science, including specialists in the area of music cognition and evolution.

- Centre for Yoga and Naturopathy (CYN) was established in 2015 and is conceived as a centre for alternative medicinal systems and holistic health.

- Inter University Centre for Organic Farming and Sustainable Agriculture (IUCOFSA) was established in 2016. This centre has been established to encourage and promote development of organic farming and sustainable agriculture in the country.

- Business Innovation and Incubation Centre (BIIC) was established in 2016. The main aim of BIIC is to kindle the entrepreneurial spirit of youth and provide customized support to early stage business ideas with high growth potential amply supported by a patent cell. It also aims to become a hub for innovation activities facilitating and guiding development of ideas into innovative applications that can benefit society directly.

- Introduced M Phil in Disability Studies in Inter University Centre for Disability Studies in the year 2011-12 to promote interdisciplinary research in the area of disability rehabilitation.

- Introduced M.Tech in Computer Science with specialization in Communication and Network Technology in 2012 and MPhil in Computer Science in 2015.

- As a specialisation in the area of Chemical Sciences, a full-fledged M.Tech programme in the domain of Polymer Science and Technology was introduced in the School of Chemical Sciences in the year 2012-13. This programme was designed to create trained manpower in the area of Polymer Science and Technology.

- Integrated master-PhD programme was started in School of Chemical Sciences and International and Interuniversity Centre for Nanoscience and Nanotechnology.

- Setting up of Music Research Centre at Inter University Centre for Studies in Science of Music (IUCSSM) at a cost of Rs. 1.15 crores.

- School of International Relations and Politics started a summer school in Public Policy and Governance. The School also held a Young Scholars Conference in 2014 inviting young researchers from universities outside Kerala.

- The University has initiated an ambitious pioneering project to construct a Science Park in the campus. The Science Park will house chemistry, biology, nanoscience, organic farming, computer science and other science and general purpose laboratories. These facilities will provide the perfect environment for start-up science and technology businesses to conduct commercially oriented R&D and bring new products and services to the market. It is to satisfy the demand for smaller start-up companies for a business environment which includes meeting and conference rooms, desk facilities etc.

- The university has decided to introduce transmission of question papers online to its affiliated colleges to ensure fast and prompt completion of examinations.

**Other Innovative Measures**

- Through Erudite Professorship, MG University could bring a large number of outstanding professors (60 numbers) from different parts of the world to interact with faculty and students and the public. These include 7 Nobel laureates and other leading academics in science, engineering, technology and social sciences from all the continents. These visits helped the students and faculty to interact with outstanding professors. The university could also make good academic networking with all these faculties leading to many joint publications.

- The University has introduced multidisciplinary e journal- www.mguejournal.wordpress.com.

- Collaboration for academic, research and extension programmes with a number of national agencies and institutions including the UGC (DRS, CAS, DSA), DST (FIST), ICSSR, ISRO, KSCSTE, CSIR, DAAD, DIT, DRNS, DRDO, ICMR, BARC, MOEF, ICCR, ICHR, IED, IIFT, Institute of Chinese Studies and the Sahitya Academy.

- Academic collaboration with research institutions of international reputation such as the Max Planck Institute for Light, Leibnitz Institute for Polymer Research Dresden of Germany, University of Nantes, University of Strasbourg, University of Nancy, University of Paris Twelve, University of South Brittany of France, California Institute of Technology, USA, University of Toronto, Canada, Catholic University, Belgium,

Heidelberg University, Germany and the Institute of Political Studies, Rennes, France, Brown University, University of Wisconsin-Parkside, Duke University, Jinan National University, China, Plymouth State University of USA, Ben-Gurion University, Israel and Technical University Denmark.

- An extension programme on 'Rain Water for Humanity' was started in collaboration with Brown University (USA) through which about 25 rainwater harvesting structures have been successfully installed which are managed through community participation. Based on the success of this programme, the school of Environmental Sciences has received Indo- US collaborative funding project of UGC 'Obama -Singh 21$^{st}$ century Knowledge Initiative 'for further research and for establishing more cost effective rainwater harvesting structures and on sustainable sanitation suitable to this region.

- Through a new collaborative project on sustainable sanitation, the school of Environmental Sciences has acquired a 'Self-Contained, PV-Powered Domestic Toilet and Wastewater Treatment System' from California Institute of Technology, USA. This system purifies the water by removing the bacteria and other organic pollutants and the recycled water could be used for further flushing.

- The School has recently installed a weather station which can measure all basic ambient atmospheric parameters continuously. The system can store all these data for future work. This portable system can be taken to the field for in-situ measurements which can substantiate the research work. The system is used for teaching wind patterns, temperature, humidity and rainfall variations in the local region. The wind data generated by the system is helpful in generating windrose diagrams etc. The system is also helpful in understanding the basic and latest measuring methods for climatic parameters.

- Advanced centre of Environmental Studies and Sustainable Development (an Inter University Centre) initiated inter-disciplinary research in areas like climate change, green technology, pollution studies, human ecology and tribal studies, bio diversity and sustainable development. The Centre is a partner of 'Obama-Singh 21$^{st}$ Century Knowledge Initiative' collaborating with Duke University and Plymouth State University, USA for sustainable development programmes.

- Library has introduced anti-plagiarism software to prevent copying of research output and theft of intellectual property.

- In addition to digitization of thesis, e-resources and open source resources have been extended through both campus-wide and remote access to students, research scholars and teachers.

- New linkages have been established via national endeavours in multi-national projects like India TMT (Thirty Meter Telescope) Project (DST) and the Square Kilometre Array India Consortium (DAE) with participation of students and faculty in science development.

- Archaeological studies with the help of an archaeological museum which has a large number of objects belonging to Paleolithic, Mesolithic, Neolithic, Megalithic and Medieval periods in the School of Social Sciences. The artifacts include Potteries: redware, blackware, black and red ware, rouletedware, Chinese and glazed Islamic ware, burial urns, iron implements, beads, coins, inscriptions, granite sculptures etc. Student participation in excavation of archaeological sites is a part of history teaching-learning methodology.

- Consultancy Services were carried out by various schools and centres (1) to improve the production quality (2) to fabricate advanced materials from natural resources (3) to give value addition to the existing products and (4) sharing of lab facilities eg. Water quality testing for the general public.

- Psychometric tests for assessment of aptitudes and mentoring of students in various schools to make them goal oriented.

- Group student projects on topics of social relevance undertaken using a problem based learning approach in various schools has shown outstanding results due to its impact and influence on local community, decisions of policy makers etc.

- Semester plan – A pre-planned academic calendar for all the working days of every semester ensures academic planning and timely execution and is followed in School of Tourism Studies. Lesson plan system for each course optimizes efficiency of learning through effective course management and is another major facet.

- Selection of "Luminary" – The best outgoing student through a six tier selection procedure is followed in School of Tourism Studies.

- Travel Grant to students to undertake projects abroad.

- Fifty Seven international and national conferences were organised by the University for the Dissemination of knowledge in various domains.

- Memorandum of Understanding with 18 international and 6 national institutions and companies for research and development.

- MOOC programme was organised by School of Environmental Sciences and International and Inter University Centre for Nanoscience and Nanotechnology.

- Inter University Centre for Nanoscience and Nanotechnology was proclaimed as an International Centre by the Government of Kerala based on its outstanding performance during 2013-14.

- Brainstorming discussion meetings have been held in the international conferences at the International and Inter University Centre for Nanoscience and Nanotechnology for the submission of joint research projects between India and rest of the world under Horizon 2020 and other bilateral projects between DST/DBT/UGC of India and the rest of the world.

- Student exchange programmes, both inbound and outbound have been undertaken on a regular basis at the master and PhD level at the Inter University Centre for Nanoscience and Nanotechnology. As a result of this, students of the Centre could travel to USA, Canada, Argentina, Brazil, Poland, Belgium, Czech Republic, Slovenia, Slovakia, Italy, Portugal, Spain, Austria, Switzerland, Sweden, Finland, South Africa, Australia, New Zealand, Japan, China, South Korea, Singapore, Malaysia, Hong Kong, Nepal and Russia.

- Annual Meet to honour the PhD holders who obtained the degree during the year. The first such meet was held on 28/05/2016 where medals and certificates were distributed.

- An interface meeting between publishers and faculty and research scholars of the university was organised by the IQAC to promote publishing of research output with reputed international publishers.

**Technological Innovations**

All the University teaching departments have adequate computing facilities for catering to their academic and administrative requirements. The university network enables access to all the online journals and research articles subscribed by the University Library. Student Web Centre ensures general computing facilities in the campus. Specific computer labs for enhancing computer skills, language skills, soft skills etc. are also part of the computing infrastructure. The major technological innovations are

- Received funds for introducing Smart Class Rooms in eleven teaching departments to offer video conferencing facilities.

- Public Portal facility

-  Wi-Fi Campus

- Campus wide OFC Network

- e-Tender for Transparency

- MOOC programmes and Web casting of Lectures

- Online single window admission through Centralized Allotment Process (CAP) which made it paperless. This admission process made the system more transparent and the principles of social justice, inclusiveness and equity could be introduced.

- Digitization in examination management system introduced in Pareeksha Bhavan.

- Official e-mail account made available to all teaching Staff.

- SMS communication for faster delivery of services

- Use of KOHA – library management software in Central Library and in teaching departments.

- E-grants system for processing of grant/Fellowship applications of SC and ST students.

**Others**

- Biometric punching has been introduced for the staff to ensure transparency and punctuality in attendance system.

- The process of selection of non-teaching staff was handed over to the Kerala Public Service Commission which ensured selection of best candidates through greater transparency.

- A newly built day care centre is being run for the children of university staff.

- Single window system has been introduced for the submission of project proposals by faculty members.

- The money released from the external funded projects has been released to the principal investigators on a fast track basis.

- Submission of audited statement of accounts of projects is done through a fast track process by the university.

- The university has ensured a barrier free environment in the campus through construction of ramps, accessible toilets, preferential parking slots etc.

- The university has earmarked two seats for meritorious sportspersons for each course at under graduate level and one seat for each course at post graduate level.

- The university has instituted Sports grace marks to a maximum of 25% for participation in sports and for their achievements at various levels of competitions.

**Ongoing Innovative Plans in Different Stages**

- The university has initiated plans at a cost of Rs. 2500 lakhs to have a Wi-Fi enabled e-campus to enable online access to all statutory departments, inter university and inter school centres and affiliated colleges to facilitate online academic programmes through

1. Procurement of 10 TB server and other computer hardware and software.

2. Establishment of Wi-Fi facility in the campus

3. Establishment of e learning and support centre

4. Establishment of a digital content management system

- Installation of solar power plant system for power generation during day time at a cost of Rs. 3500 lakhs. This initiative will solve the electricity problems and frequent power cuts in the campus and the campus will become more green.

- Establishment of digitising facility in the university library.

- Setting up of Digital Content Creation Lab.

**7.3 Best Practices**

**7.3.1** Give details of any two best practices which have contributed to better academic and administrative functioning of the university.

**Best Practice I**

1. **Title of the Practice: MULTIFACETED APPROACH FOR EXCELLENCE IN RESEARCH AND KNOWLEDGE PRODUCTION**

2. **Objectives of the Practice**

A set of comprehensive measures were taken by Mahatma Gandhi University to achieve outstanding results in the area of research and knowledge production. The objectives are;

a) To enhance research and knowledge production through upgradation of various academic elements.

b) To excel in research through constant development of superior infrastructure and resources.

c) To facilitate collaborative work by finding out the best partners for research collaboration from India and aboard.

d) To enable faculty exchange and student exchange programmes to empower human resources.

e) To conduct joint conferences and workshops.

f) To have joint patents and publications.

g) To run Massive Open on- line Programmes (MOOC).

h) To constantly enhance analysis of the data, filing of the patents, sharing of the intellectual property rights and publication of research papers in refereed journals.

i) To equip students to gain good and meaningful employment opportunities at the global workplace.

j) To extend the research output to the betterment of the society.

## 3. The Context

Understanding of the need for several non-conventional areas of knowledge across physical, natural and Social Sciences, the university has chosen to organize its academic departments as interdisciplinary schools where multiple disciplines co-exist and interact with one another. This was followed by establishment of several inter university and inter school centres as institutions of convergence which facilitated cutting-edge research in various interdisciplinary domains. The university offers research programmes in forty disciplines through its own schools as well as through its approved centres.

## 4. The Practice

The university has massive faculty exchange programme where foreign faculties visit our campus on a regular basis and interact with students and faculty of the university. Our faculty visits other universities in India and abroad to give lectures and to undertake joint research projects which leads to joint publications and patents. Through Erudite Professorship, MGU could bring a large number of outstanding professors (60 numbers) from different part of the globe to interact with faculty, students and the public. These include 7 Nobel laureates and other leading faculties in science, engineering, technology and social sciences faculties from all the continents. These visits helped the students and faculty to interact with outstanding professors. The university could also make good academic networking with all these academics leading to many joint publications.

MGU was the only state university in the country to get Obama-Singh 20th Century Knowledge initiative project. Through this programme high level of academic networking was started with two US universities. This led to the exchange of faculty visits from both the countries, joint publications and conferences.

Student exchange programmes in both directions helped the students to excel in their academics, cross-cultural understanding and academic networking thereby getting equipped to meet the needs of the global workplace. They also become extremely skilled in running many sophisticated instruments. For eg. Student exchange programmes introduced at the International and

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Interuniversity Centre for Nanoscience and Nanotechnology (IIUCNN) was a very unique programme where master and PhD students of (IIUCNN) could spend 6 months to one year in various countries like USA, Canada, UK, Brazil, South Africa, China, Singapore, Croatia, Austria, Germany, New Zealand, Japan, Australia etc. MGU could attract large number of students from abroad for the project work and to do a semester in the university for which credits could be transferred.

The frequent joint conferences and workshops organised in collaboration with other national/international institutions are very beneficial to keep abreast of the developments in the field.

Massive Open on-line Programmes (MOOC) proved very useful for the students as they helped them to attend expert online lectures of the faculties in other universities in India and aboard. MOOC on "Global Understanding" between University of North Carolina, USA and MGU was a unique programme introduced for the first time in Kerala at the university level. Another programme was conducted between MGU and Quilu University of Technology, China and Harbin Institute of Technology, China.

Joint research collaboration with other universities and institutions in India and abroad often leads to joint publications and patents. MGU could send one faculty and three students to Antarctica and this enabled high level of experimentation at the polar station.

Many faculty members of the university could present papers at the international conferences by making use of the unassigned UGC grant sanctioned for the purpose and the university has fully utilized UGC grant. Recently the University has approved travel funds for outstanding students too of the university to go abroad.

## 5. Evidence of Success

The success of these initiatives is phenomenal in terms of the national and international acclaims received. The university has an h-index of 66 based on Web of Science which is the highest value among all the universities in the state of Kerala. CSIR has ranked the university thirteenth at the national level in terms of intellectual productivity and NISTADS has rated it nineteenth at the national level in terms of h-index of the science faculty. DST has ranked the University 8th among the 29 Universities under the PURSE programme. Prof. Sabu Thomas is the most productive researcher in the state of Kerala with an h-index of 78 and citations 26000. His national ranking is 5th in terms of productivity.

Another important evidence of success is the large number of joint publications of MGU faculty with universities and research institutions abroad. The joint international conferences, joint patents and MoUs with leading institutions abroad are ample testimony to the success of the

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initiatives. The success of joint Ph.D programmes with institutions in Australia and France is another strong indicator. The excellence in teaching and research at the Inter University Centre for Nanoscience and Nanotechnology has resulted in the elevation of the Centre into an International Centre, thus providing the university the unique status of having the only such international Centre in the State of Kerala. Because of the multifaceted approach in research, MGU could bag large number of national and international projects (DST Nano Mission, DBT, OBAMA-SINGH initiative, and other international projects) leading to infrastructure and manpower development.

## 6. Problems Encountered and Resources Required

The major constraint in offering the MOOC programme was the disruptions in high speed internet connectivity, lack of excellent video conferencing and time difference between the countries. Official hurdles were there initially for the funding of the outstanding students to go abroad on student exchange for their travel and stay, which were finally resolved. Difficulties in the processing of travel documentation are another hindrance.

**Best Practice II**

## 1. Title of the Practice: ENHANCED STUDENT SERVICES THROUGH ICT ENABLED CENTRALISED ADMISSION PROCESS

## 2. Objectives of the Practice

- To establish student -friendly admission systems for both the affiliated colleges and the university teaching schools.

- To ensure social justice in admissions by strictly maintaining the merit and reservation norms.

- To extend the catchment area beyond the jurisdiction of the university.

- To minimize the vacant seats.

- To put an end to admission related malpractices.

- To develop a Centralized Admission Registry.

- To develop an admission system in which the students and parents can save their time and money.

## 3. The Context: Contextual or challenging issues in designing and implementing the practice

Though the state government and university had framed specific norms for the admission process, the authority of admissions had been with the individual colleges. Each year during admission, the university had been flooded with complaints about violation of norms. Most of the complaints proved to be genuine. Community reservation pattern was not followed in many colleges.

The details of the candidates from the colleges used to reach the university only for the purpose of examination registration. At that stage even if the university found that there were unauthorized admissions, no remedial measures could be taken to support the student community due to the lack of enough time. In fact there was no system like a Centralized Admission Registry to cross check admissions. When the inflow of complaints increased, the university resolved to emulate the acclaimed Centralized Admission Processes of State Higher secondary Education Board from the year 2010. One of the challenges was a suit filed by private managements who termed the initiative as an encroachment on the right of minority management colleges. However the university could get a favourable verdict from the honourable Supreme Court.

### 4. The Practice: Uniqueness of the practice in Indian context- and limitations/constraints faced

In this system, a student can register any number of college/teaching School/course options based on his eligibility within a single application. The student will be allotted his/her eligible option strictly based on his/her merit and reservation norms. There are separate systems for admission to affiliated colleges and the University Teaching Schools owing to the difference in the admission criteria. There will be a number of allotments in the case of affiliated colleges whereas the admission to the Teaching Schools is based on a Common Admission Test after which the students are given allotments in an Admission Counseling. After the admission process the university prepares a Centralized Admission Registry by combining the data available in the system with the details of the candidate with regard to management/community quota admissions uploaded from the colleges. This process ensured the principles of social equity, accessibility and inclusiveness.

### 5. Evidence of Success: Performance against targets and benchmarks, review results-what results indicate?

- The enrolment in individual colleges shot up.
- The number of vacant seats got minimized.
- The enrolment of backward community students increased.
- The enrolment of SC/ST students doubled.

### Notes add additional information if any

It was in 2010 that the university launched an e-governance initiative for centralizing the admission process in the affiliated colleges. In the initial year the university depended on LBS Institute for technical support. However, in the succeeding year, the university developed its own software for Centralized Admission Process. Following the resounding success in CAP for affiliated colleges the Common Admission Test for the PG programmes in the

university teaching schools also was moved to the online platform in 2013. The process was renamed CAT-MGU with integration of the Payment Gateway Services of M/S NSDL. Widely acclaimed as student friendly systems, the centralized admission processes of the university have benefitted both the student community and the college authorities. They also succeeded in maintaining social justice by strictly following the merit and communal reservation norms in the admission process.

**Other Best Practices**

**1.     Empowerment and Rehabilitation of the Physically and Mentally Challenged through Six Community Extension  Activities (School of Behavioural Sciences):**

School of Behavioural Sciences which represents the disciplines of Special education, Psychology, Nursing, Medicine, and Clinical Psychology has developed a number of community extension activities and programmes  in the form of life skills training for high school students, empowerment of parents of the intellectually and mentally challenged children, training of staff nurses in imparting counseling, Jyothirgamaya - a community extension activity for the development of awareness on disability, Insights-  a community extension activity for the development of attitudes related to disability rehabilitation and Naipunya- a community extension activity for the development of skills. It also conducts a child development clinic named 'Pratheeksha' on every second Saturday involving a team of pediatrician, clinical psychologist, counselors, audiologist and a physiotherapist. The activity which is facilitated with the active involvement of Indian Academy of Pediatrics and District Early Intervention Centre is an attempt to promote interdisciplinary participation in disability prevention, detection and management.

The University also took the lead to establish **DREAMS** (Disability Rehabilitation Early Assessment and Management Services), an extension activity with the objective of providing early identification and intervention services to all types of disabilities under one roof. The initiative provided support services to 764 referral child clients, from medical institutions through DREAMS, during the assessment period.

The School of Behavioural Sciences organized a series of extension activities in the community to promote awareness regarding disability and rehabilitation under the programme JOTHIRGAMAYA. The School also organised and conducted medical camps to facilitate early identification of developmental disabilities under the scheme PRATHEEKSHA. The school also organised and conducted a series of training programmes for ASHA workers and parents to enhance skill in rehabilitation of persons with disabilities under the project NAIPUNYA.

## 2. Production of Laboratory Grade Water Through a Unique Rainwater Harvesting System (School of Environmental Sciences)

The distilled water, double distilled water and ultra-pure water required for environment analyses in laboratories are produced using a unique rainwater harvesting system. The harvested rain water is utilised for producing various analytical grade water as source and coolant. The coolant water is recycled through the rain water harvest structure unlike the conventional distillation units where the coolant water is discharged into the drain. This reduces considerably the wastage of conventional fresh water and increases the efficiency of the laboratory grade water producing system. The biodiversity, ecosystem process and eco-hydrology of Jeevaka Live Laboratory- a pristine 12 hectare protected major water shed in the campus is used to offer field experience to students and they regularly monitor this live laboratory.

## 3. Legal Literacy Cell (School of Indian Legal Thought)

Legal Literacy Cell, constituted in the year 2011 gives necessary legal advice and information to the public who approaches the Cell. The activities of the Cell are a kind of training to students in handling legal issues of the public.

## 4. Sports Scholarship and Sports Merit Cash Award (School of Physical Education and Sports Sciences)

The university has instituted Sports Scholarship for 150 meritorious Sports persons annually to recognize the achievement of the Sportsman/ women of the university. This acted as a motivating factor and the School has been able to produce 7 Awardees,10 Olympians, 15 Asian games athletes' and more than 200 internationals since its inception. The university has also instituted Sports Merit cash Award to the winners of All India Inter University championships annually. The Sports Merit Cash Award was instituted by the School to encourage the university teams to perform well at Inter University Competitions. An amount of Rs 10000/-, Rs 7500/- and Rs 5000/- respectively is given to athletes for each gold, silver and bronze medal.

## 5. Salvaging Excavations of Historical Material: (School of Social Sciences)

The practice of taking students to excavation sites and training them in salvaging artefacts belonging to the megalithic and pre-modern artefacts has contributed immensely in archaeological studies. The School also train students in surface collection of historical materials such as old coins and potteries. The outcome of these excavations in the form of thirty megalithic and pre-modern artefacts is displayed in the archaeological museum of the School.

6. **Yoga for Masses-A Public Health Initiative: (Department of Life Long Learning and Extension)**

The Department with the support of the Alumni, launched the Project "Yoga for Masses- Public Health Initiative" to impart awareness on basics of yogic practices among the public on voluntary basis. Sample studies have shown significant improvements in the life style disorders of the participants. 480 Yoga professionals who are appropriately skilled to provide training for the public have passed out from the Department during the last four years. More than 250 Yoga training centres have been launched by the MGU Alumni besides reaching the message of Yoga to more than 25,000 people through mass contact programme.

Similarly, the Department launched its Certificate program in Counselling too. 400 students covering the wider social circle right from farmers to doctors, engineers, police officials, teachers, nurses, advocates and social workers have cleared the program in the last four years. The Department offers Counsellor on Call services to the students and educational institutions as and when required.  More than 5000 students have been counseled through the system so far.

**100 Organic Farming Clubs** have been set up in Colleges under the university, and the cumulatively all the Clubs have produced vegetables worth Rs 50 lakhs.

7. **Use of Online Interactive Teaching Learning Platforms like Edmodo, Galileo etc  (School of Tourism Studies)**

**Edmodo** - a digital online teaching learning interactive platform is used to enrich the teaching learning quality, crossing the barriers of time and place through its superior features like online discussions, online tests, pooling resources, online submission of assignments etc.  Using Edmodo, students and teachers can reach out to one another and connect by sharing ideas, problems, and helpful tips resulting in online participatory learning.  A teacher can assign and grade work on Edmodo and students can avail support of this pooling of learning resources.

To meet the global travel industry's requirements, School of Tourism Studies has also incorporated the use of  travel simulation software like Galileo, Virtual Travel Agency, Virtual Hotel, Virtual Food and Beverage which familiarizes students with online reservation systems used worldwide for comprehensive transport and  accommodation management.

8. **Internship-Placement System through Effective industry linkage (School of Tourism Studies)**

With active participation of the industry, the School has developed an effective system for implementation of the internship scheme. The internship, which is titled as Tourism Services Internship (TSI) consists of three

components: Pre-internship workshops, an eight week supervised working period (internship), and submission of a post-internship report called Tourism Services Internship Report. Constant evaluation and monitoring of the process is done using Daily Progress Report (DPR) and Internship Evaluation Feedback (IEF).This systematic internship system was found very effective for linking theoretical knowledge and industry practices, which reflected in the form of successful placements.

9. **Demonstration –cum – Interactive Method for Teaching Sanitation and Waste Management with Operating Models (School of Environmental Sciences)**

The School of Environmental Sciences made the learning process interesting with a demonstration –cum – interactive method. Sanitation and waste management are given prime importance (Swachh Bharat) with operating models in the campus. The solid waste management techniques are explained / taught to the student community with the working models of biogas plants, composting and vermin-composting units in the laboratory. The students get trained how to operate these gadgets for efficient management of solid wastes.

10. **The Summer School:**

The school of International Relations and Politics organized a summer school on public policy and governance in association with Institute for Sustainable Development Governance (ISDG) during 30 April 3 may 2016. It was attended by about 30 scholars students and the stakeholders of public policy and classes were engaged by experts in the relevant field of studies.

11. **Young Scholars Conference:**

The KPS Menon Chair of the school of International Relations and Politics organized a Young Scholars conference in association with Kerala State Higher Education Council on 27-28 March 2014.it was attended by a large number of scholars from all over Kerala. Ambassador K.P Fabian led the deliberations of the conference.

# ACTION TAKEN REPORT

# ACTION TAKEN REPORT AND QUALITY INITIATIVES UNDERTAKEN ON THE PREVIOUS PEER COMMITTEE RECOMMENDATIONS

Mahatma Gandhi University has taken all recommendations of the Previous Peer Committee with due respect and consideration. The University places on record its deep appreciation of these recommendations which are instrumental in correcting the shortfalls and inadequacies. The following are the observations and recommendations, followed by the steps taken by the University.

## Criterion I-CURRICULAR ASPECTS

### 2.1.2 Academic Flexibility:

### Observation 1: Credit choice across disciplines and transfer of credits

CSS provides provision for open courses and every regular postgraduate student is required to choose an open course of 4 credits in the third semester. It offers a student the opportunity to attend courses offered by another school /faculty.

**Credit accumulation and transfer facility:** Inter institutional credit transfer is being offered by university for students undertaking projects outside the University. Open courses are offered to students in the third semester. The credit for the open course is transferable.

### 2.1.3 Feedback on Curriculum

### Observation 2: Formal and systematic mechanisms to direct feedback from the alumni and parents for curricular improvement.

The University uses the feedback obtained from students and alumni in the prescribed format. The feedbacks received from different groups of students and alumni are compiled by the Head of the School/Centre concerned and it is discussed in the Faculty Council for appropriate action in curricular improvement.The feedback helps respective teachers to know and improve the syllabus, teaching methods and evaluation.

### 2.1.4 Curriculum Update

### Observation3: Fieldtrip/visit/work is not visible in some Schools/Departments

University strongly encourages field trips/familiarization trips/visits to labs, industries etc as part of academic activities in all Schools/Centers.

**CRITERION 2 TEACHING, LEARNING &EVALUATION:**

**2.2.2 Catering to diverse Needs**

**Observation 4: There is a below par representation of SC and ST students.**

With a view to streamlining the admission procedure in affiliated colleges and university departments, the centralised admission procedure (CAP) was conceptualized by the Mahatma Gandhi University which was implemented from the academic year 2010 onwards and is successfully running the process since then. The biggest advantage of CAP is that the seats earmarked for SC/ST/Physically Challenged candidates are exclusively allotted to them. Unfilled seats in these categories, if any, can also be allotted to other eligible categories as per the existing rules, thereby ensuring social justice which has shown positive results.

In the admission process the University offers mandatory reservation of seats to special categories as shown below:

| Category | Reserved seats (%) |
|---|---|
| Scheduled Castes | 15% |
| Scheduled Tribes | 7.5% |

For the unfilled seats under the SC/ST category, re-notification is done upto a maximum of three times to ensure filling up of vacant seats.

**Observation 5: Proactive stance towards the physically challenged students.**

The University has issued specific orders (U.O No. 4308/P&D - 1/3/2016/Admn. dated 01/08/2016) formulating a comprehensive policy for addressing disability issues. The main components of the order are as follows:

- To engage the service of a barrier free design expert and architect to audit the disabled-friendliness of all physical segments of the University.

- To ensure disabled-friendly features like ramp (of a gradient not greater than 18-20 degrees), lifts (wide enough for wheel chair, and with Braille control switch panel and audition), special assistive fixtures and fitting (like handrails and grab bars alongside the side walk of steps and staircases), and disabled - friendly washrooms in all future construction projects.

- To allow a grace period of three months for MPhil and six months for PhD students who are physically challenged in the submission of dissertations.

- To ensure at least one terminal in the computer workstation (of all departments, centres) with special assistive technologies, preferably open source, for physically challenged students.

- To ensure the websites of Mahatma Gandhi University and its statutory teaching departments and the affiliating colleges incorporate features friendly to the visually challenged (including colour contrast, variable font size and audition).

- To create a special fund to handle all income and expenditure relating to addressing disability issues of Mahatma Gandhi University including constituent colleges. Besides central and state funding and UGC special assistance, funds are also received from MP/MLA development plan assistance for constituencies, and rules permitting, from the private sector companies (who may fulfill it as part of Corporate Social Responsibility).

- 3% reservation in admission is provided to this category of students to increase their access to higher education.

- Visually-impaired students are allowed scribes and extra time for writing the examinations.

- The unfilled seats under the Persons with Disability (PD) category is converted to seats for children with special needs.

- The University Library has Braille Centre with DAISY Software to aid the learning requirements of visually challenged students.

- Ramps and wheel chairs are provided in the buildings in the campus.

- The University has also initiated steps to procure an eco-friendly battery operated vehicle with wheel chair access along with preferential parking slots to ensure barrier free transportation in the campus. Physiotherapy unit

- Audiology and speech therapy unit

- Remedial coaching for students with learning disabilities

- Psychological counseling services

- ABILITY – A funded project initiated by the School of Social Sciences to make buildings barrier free for persons with varied disabilities.

- To highlight the aspect of disabled - friendliness in all notifications for admission and appointment released by the University statement "MGU is proactive to the needs of the physically challenged" is inserted.

- The University has conducted a comprehensive Access Audit to evaluate the state of accessibility in the campus.

- The University has availed Rs. 1 crore under the RUSA Scheme for the construction of ramps and disabled friendly toilets in all buildings of the University. The classes for differently-abled students are arranged on the ground floor to the extent possible. Electronic Lab for Visually Challenged has been set up in the library during October 2015 with an objective to provide reading facilities to blind and low vision library users.

## 2.2.3 Teaching-Learning Process

### Observation 6: Methodological rigour in interdisciplinary teaching-learning process has not been spelt out.

Interdisciplinary courses that cut across disciplines are identified and curriculum is designed with teaching-learning methods by the combined effort of faculty from various disciplines. The university's MPhil/PhD programmes currently in place reflect the changing matrix of the methodological rigour.

### Observation 7.Only few schools/departments use audio-visual facilities for teaching –learning.

The university has established smart classrooms facility in all the Schools/ Centers for teaching and learning.

### Observation 8. There is a lack of critical mass of teachers to meet the needs of the ambitious academic expansion plans of the university

The University has well-qualified and distinguished pool of faculty members in different disciplines. There is a disparity between the number of teaching posts sanctioned a filled for which university has taken remedial measures. The University addresses manpower issues by availing the services of Emeritus/Visiting Professors, Adjunct Faculties, Guest Lecturers and Contract Lecturers. At present twelve Emeritus/Visiting Professors are serving the University. Additionally the university invites leading academics including Nobel Laureates from India and abroad as Erudite Professors and Chair Professors. The University is also in the process of filling all the existing vacancies in a time-bound manner.

## 2.2.5 Evaluation Process and Reforms

### Observation 9. Institutional checks for internal evaluation is to be strengthened

The University ensures transparency and accountability in evaluation of students in various programmes through various strategies applicable to both internal and external components. Internal evaluation is continuous and teachers provide adequate and timely feedback to students. Their marks/ grades are intimated and sufficient remedial measures are suggested for improvement. The University has adopted progressive evaluation strategies at the University School level. It has been conducting courses with academic flexibility on credit based system. The feedback from the students and stakeholders are duly considered for strengthening the continuous internal evaluation. Transparency and accountability are hallmarks in internal evaluation. The effectiveness of the process is monitored periodically.

### Observation 10: The mechanism to monitor the quality of doctoral research is inadequate

The doctoral committee of the Schools and Centers carefully monitors the quality of the doctoral research with the adoption of the 2010 UGC Regulations. The students have to undertake course work on three subjects including a topic on research methodology. PhD students have to make presentation of their research work every 6 months before the external expert. External expert makes suggestions and recommendations for the high quality of the work. Before the submission of the PhD thesis, they have to make a pre-synopsis viva by inviting an external expert. Based on the suggestions and recommendations of the expert, the PhD student has to make the required changes in the PhD thesis before the final submission. It is mandatory that the doctoral student has to publish at least one paper in a refereed journal prescribed by the UGC.

### Observation 11: The question papers are not challenging enough

Effort are now being taken up to improve the quality of questions giving due importance to critical areas that are helpful to evaluate the knowledge and understanding of the students at various levels.

## 2.4.2 Maintenance of Infrastructure

### Observation 12: Exterior of some buildings and landscape needs to be spruced up

The University received a fund of Rs. 20 crores from Rashtriya Uchathar Shiksha Abhiyan (RUSA) infrastructure fund in 2016 for infrastructure development and renovation which has been utilized effectively. The exterior and landscape of many building have been renovated with RUSA funding.

### 2.4.4 ICT as Learning Resources:

### Observation 13. Bandwidth does not seem to be adequate considering the number of users.

Free Wi-Fi is available in the Campus and Hostels. The University has finished installing high speed wireless networking in the campus. These facilities are meant for the upcoming e-governance programme being planned in the University. The university avails the National Knowledge Network connectivity for accessing the digital scholarly resources provided by the UGC Inflibnet Centre. Services provided by the National Knowledge Network are high speed internet and the same connection is being used for e-governance and Wi-Fi connectivity in the university. National Knowledge Network is also provided in other centres of the university.

### 2.4.5 Other Facilities

### Observation 14. Two boys' hostels and one girls' hostel are available. But more space is required in both hostels.

As per the recommendation, the University has constructed two hostels for men and three hostels for women and the details are given below:

| Name of Hostel | Capacity | Established During the Assessment Period |
|---|---|---|
| Pallana Men's Hostel | 117 ⎫ 198 | - |
| Pallana Annex Men's Hostel | 81 ⎭ | 2014-15 |
| Syrandhri Women's Hostel | 84 ⎫ | - |
| Nila Women's Hostel | 71 ⎬ 226 | 2012-13 |
| Kabani Women's Hostel | 71 ⎭ | 2013-14 |

All the University hostels are well-furnished and are fully occupied.

### Observation 15: Transport facilities for students, especially to satellite campuses are inadequate

The main campus of the university has 6 buses for the benefit of the student community. Most of the students who commute from home and city take the help of these buses. The satellite campuses of the university have 9 buses, 7 at the Campuses School of Medical Education, 1 for the Pullarikunnu campus and 2 buses for the law campus.

**Observation 16: Buildings are not friendly to the physically challenged**

The University has availed Rs. 1 crore under the RUSA Scheme for the construction of ramps and disabled friendly toilets in all buildings of the University which has been completely utilized. The classes for differently-abled students are arranged on the ground floor to the extent possible. Lift facilities are already installed in the examination wing of the university. Eventually the facilities will be installed in all our buildings for the physically challenged. Biometric attendance system has been properly installed in all the buildings for the benefit of the physically challenged.

**2.5.1 Student Progression**

**Observation 17: There is no University level Placement Cell.**

The University has established a Placement cell to improve the employability of the students and also to provide an opportunity for placements. The main objective of the Placement Cell is to work towards reducing the skill gap in students, thus enabling them for immediate placements after their respective courses. The major objectives of this Placement and Training Cell are:

- Guiding students for placement in credible organizations.

- Conducting seminars, group discussions, and mock interviews as a part of career guidance and personality development.

- Coordinating the efforts of the students of the various colleges and departments in arranging domain specific training for them.

- Acting as an information centre for students in job opportunities and competitive examinations.

The major tasks undertaken by this Cell include:

1. Training to students (EMPLOYMENT READINESS FOUNDATION PROGRAMME)

2. Organizing recruitment drive in the campus.

**2.5.3 Student Activities**

**Observation 18: Good outdoor sports and games facilities are available: but there is lack of indoor sports facilities.**

Facilities are provided for indoor sports like chess, table tennis, weight lifting, gymnasium, yoga, etc.

**2.6.1 Institutional Vision and Leadership**

**Observation 18: The ratio of nonteaching to teaching is high**

Of course, the high ratio of non-teaching to teachings is due to the fact that Mahatma Gandhi University has large number of affiliated colleges and self-financing constituent colleges. However, University is trying to reduce the

ratio by ICT enabled technologies at the administration, finance and examination wings of the university which include electronic file transfer and paper less administration.

## 2.6.2 Organizational Arrangements

### Observation 19: Monitoring of the academic quality of affiliated colleges needs to be strengthened

To ensure quality and to keep abreast of the times, the University organizes curriculum workshops in different disciplines and subjects to design curriculum not only for the schools but also for the various programmes offered in its affiliated colleges. In fact, the University conducted 360 workshops during the assessment period. The CBCS system has been introduced in the affiliated Arts and Science Colleges at the undergraduate level from 2009 and at the postgraduate level from 2012.

## 2.6.3 Strategy Development and Deployment

### Observation 20: Prospective plans are not clearly visible.

Mahatma Gandhi University has prospective vision document for the next 10 years i.e., vision 2030 which include Convergence Academia Complex, Science Park, State- of- the- art Academic Laboratory Complex and International Academic Convention Centre. The University has ambitions plans to be in the list of best 200 universities in the world ranking (Q and S, Shanghai etc). Additionally, every School and Center of the University has a prospective road map for the vision 2030.

## 2.6.4 Human Resource Management

### Observation 21: A large number of legal cases against the university are pending.

The fact that the University has a large number of affiliated colleges and self-financial institutions under its purview which has led to litigations of various dimensions. The cases were filed concerning the following areas:

a) Service matters- appointment, promotion, disciplinary action and seniority of teaching and non-teaching staff.

b) Students' matters - admission, examinations, attendance etc.

The judicial verdicts on all such cases are strictly followed and enforced in a time bound manner ensuring equity and social justice.

## 2.6.5 Financial Management and Resource Mobilization:

### Observation 22: Some of the audit objections have not been taken care of.

The audit objections raised by the Audit wings of the University and the Kerala Government are regularly addressed and corrective steps are being taken.

## 3.2 Institutional Weaknesses:

### Observation 23: Faculty recruitment is inadequate

In the last four years, three permanent faculty members were appointed. If the University has constraints in filling up the post (due to pending cases, lack of qualified candidates, reservation issues etc.) then qualified and experienced persons are appointed as guest faculty. 56 guest faculty members have been appointed in various schools since 2010. It is to be noted that Mahatma Gandhi University is the only university in the state of Kerala which has been awarded the DBT BUILDER programme by Department of Biotechnology, Government of India, in which 3 Assistant Professors have been appointed. The University is also in the process of filling all the existing vacancies in a time-bound manner.

### Observations 24: Faculty strength is minimal

Recently the syndicate of the university decided to fill all the vacant 41 positions of the faculty in the schools. School and Centers of the University have asked for new positions from the Government of Kerala

### Observation 25: Facilities for sports and co-curricular activities are not enough

The university has taken innovative measures for supporting students to participate in sports and other extra-curricular activities. University has the following facilities for sports

- Playground: Floodlit roofed basketball court, 200 mts track, Volleyball court, Handball court, Football/Cricket Ground

- Gymnasium: Fitness Centre, Yoga/Wrestling Hall

- 100 bedded sports hostel for Boys and Girls

The School of Physical Education and Sports Science provides additional scholarships to the meritorious students, viz: Annual Sports Scholarship of Rs 3, 50, 000/- is distributed annually to the top150 sportspersons and Merit Award of Rs 7, 00,000/- is distributed annually as Merit Award for the Medal Winners in AIIU competitions at the rate of Rs. 10, 000 for Gold, Rs. 7,500 for Silver and Rs. 5,000/- for Bronze.

**Observation 26:**

**Some teaching staff need to be motivated and re-oriented especially towards the research**

The faculty members of schools and centres were motivated by conducting workshops, training programmes, refresher programmes, etc. They are motivated to apply for minor and major research projects funded by various funding agencies.

**Observation 27:**

**There aren't many students from other states and countries.**

Our University Centre for International Co-operation(UCIC) is acting as a coordinating centre for admission and academic related activities of international students in various schools/ departments/ centers for which it interacts with different departments. The students from other countries are now joining various schools and centers for their PG and PhD programs, and they are from France, China, Vietnam, Turkey, Tanzania, Uganda, Poland, Kazakhstan, Japan, Fiji, etc. The students from Karnataka, Tamil Nadu, Andhra Pradesh and Utter Pradesh also joined for the academic programs at MG University

**Observation 28:**

**There aren't many staff members from other states.**

For faculty recruitment, University advertise widely in the national level to attract the best talent across the country.

**Observation 29:**

**The number of programmes available in Social Sciences is to be strengthened.**

New programmes have been introduced at the master's level in the School of International Relations & Politics (like Public Policy and Governance) and K N Raj Centre for Planning & Center-State Relations (Economics).

**Observation 30:**

**Hostel facilities are limited.**

As per the recommendation, the University has constructed one hostel for men and two hostels for women during the assessment period as shown below:

| Name of Hostel | Capacity | Hostels established during the assessment period |
|---|---|---|
| Pallana Men's Hostel | 117 ⎱ 198 | - |
| Pallana Annex Men's Hostel | 81 | 2014-15 |
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| Nila Women's Hostel | 71 | 2012-13 |
| Kabani Women's Hostel | 71 | 2013-14 |

## Observation 31

### Residential facilities for teaching and non-teaching staff inadequate

University has built modern residential facility for faculty and non-teaching staff members. These include 64 staff quarters, 12 faculty homes and 6 quarters for the statutory officers.

### 3.3 Institutional Opportunities:

### Observation: 32 There is great opportunity and need to turn to ICT-enabled resources for teaching and learning.

As part of introducing smart class room facility, the following items were supplied to various Departments:

| Sl. No. | Name of the Item | Number Supplied |
|---|---|---|
| 1 | DLP/LCD Projector | 68 |
| 2 | Laptop | 68 |
| 3 | Visual Presenter | 17 |
| 4 | Interactive Board | 68 |
| 5 | Photocopier | 26 |
| 6 | PA System | 35 |
| 7 | Scanner | 10 |

| 8 | Printer | 20 |
| 9 | 5 KVA UPS | 6 |
| 10 | High Speed Scanner | 1 |
| 11 | Desktop Computer | 95 |
| 12 | Desk top Computer with special softwarefor blind teachers | 1 |
| 13 | Lecture Stand | 10 |
| 14 | Wireless Mouse | 68 |
| 15 | Video Camera | 10 |

- For training teachers/faculty, one smart classroom is arranged at the Conference Hall/Syndicate Room in the Administration Block.

- Sufficient training is given to faculty for using smart class room facility.

- Smart class rooms have been introduced as a part of career guidance programme.

- All teachers are provided with personal computers with unlimited internet connectivity

- Schools/Centres are equipped with smart class rooms.

- Modern multimedia teaching aids like LCD projectors, smart boards etc. are employed for teaching.

- Virtual programmes, teaching learning software and video conferencing facilities are also available.

- The university encourages blended learning by using online teaching learning platforms and e-learning resources.

- Orientation programmes and hands-on training for familiarizing faculty members with the use of various software for teaching - learning are conducted regularly.

- MG university hyas initiated MOOC programme with other universities.

**Observation 33: There is a need to tap resources from the alumni and government agencies**

All Schools have their own alumni association. They have contributed to the development of the Schools and continue to be part of the academic stream. Contributions of Alumni Associations are varied viz: academic support, updating syllabi, enabling to keep abreast of the latest technologies, student mentoring, general body meetings, distribution of prizes to students for outstanding contribution in the departments, family get-togethers, honoring of teachers, technical seminars, special talks, cultural meets, placement support, internship support and philanthropy.

All the schools and centers tap funding from all government agencies such as UGC, DST, DBT, ISRO, CSIR, DAAD, KSCSTE ICMR, BRNS, MeitY, MoES, ICCR, ICHR, ICSSR, IED, IIFT, Institute of Chinese Studies, Jinan National University, China, and the Sahitya Academy.

**Observation 34: There is scope for increased private participation**

Some of the schools and centres of Mahatma Gandhi University receive funding from private companies from India and abroad for their research activities. These include MRF Tyres Ltd, Apollo Tyres, General Cables USA, Surface Treat, Czech Republic, Plant lipids, India.

**3.4 Institutional Challenges:**

**Observation 35: University needs focused planning based on its founding vision and missions**

Mahatma Gandhi University is in the forefront of planning, visualizing and implementing programmes for knowledge creation and dissemination imbibing the philosophy of sustainable growth. It has taken a number of pioneering initiatives to start teaching and research in new and interdisciplinary areas of knowledge by starting new International, Inter-University and Inter-School Centres.

**Observation 36: For optimum utilization of human and physical resources, more students can be enrolled in each school/ Department.**

In order to optimum utilization human and physical resource of the schools new programs have been stated. These include MSc-PhD integrated programmes and M.Tech programs in some schools. Additionally international interuniversity and inter schools have been stated for teaching and research on emerging areas for science and technology.

**Observation 37: There is an urgent need to enroll more physically challenged students.**

University has taken several proactive steps to attract more physically challenged students. These include construction ramps, introduction of wheel chairs, lifts, etc. University also issued order to buy battery operated vehicle for differently abled. There is also a separate bus service for physically challenged students.

**Observation 38: There need to be a better interface between the university and the society through extension and outreach programmes.**

University frequently organizes several outreach programmes besides extension cum awareness programmes to create a better interface between university and society at large. Prominent among them are shown below:

The University launched the Project "Yoga for Masses- Public Health Initiative" benefitting 480 student trainees who are appropriately skilled to provide training for the public. More than 250 Yoga training centres have been launched by the MGU alumni besides reaching the message of Yoga to more than 25,000 people through mass contact programme.

The Department of Life Long Learning and Extension is the leading department entrusted with extensive extension activities. The department is regularly conducting home stay camps in the nearby villages. Similarly, the department has also launched a certificate programme in Counselling too. 400 students covering the wider social circle right from farmers to doctors, engineers, police officials, teachers, nurses, advocates and social workers have cleared the programme in the last four years. The department offers Counsellor on Call services to the students and educational institutions as and when required. More than 5000 students have been counselled through the system so far. 100 Organic Farming Clubs have been set up in Colleges under the university.

The other major extension and outreach programmes undertaken are given below:

1. Helping the villagers to set up rain water harvesting structures.
2. Learning Disability Early Detection Camps
3. Counselling sessions for parents and students with Learning Disability
4. Social Rehabilitation of differently-abled
5. Environment enrichment Programmes
6. River protection activities in Periyar, Meenachil and Pampa rivers
7. Preventive Medical Camps
8. Tree Planting

# Section IV: Recommendations for Quality Enhancement of the Institution

**Observation 39: There is a strong need to introduce Mathematics, Economics, Philosophy and foreign language. Especially French and German.**

MA course in Economics has been started in KN Raj Centre for Planning and Center-State Relations. The steps have been taken to start forging language such as French and German in School of Tourism Studies. University has taken steps to start department of mathematics at the main campus. Philosophical components have been added and strengthened in the curriculum of the PG, MPhil/PhD programmes of the School of Social Sciences, School of International Relations and Politics, School of Letters and the School of Gandhian Thought and Development Studies.

**Observation 40: There is an urgent need to augment transport facilities**

The main campus of the university has 6 buses for the benefit of the student community. Most of the students who commute from home and city take the help of these buses. The satellite campuses of the university have 9 buses, 7 at the Campuses of School of Medical Education, 1 for the Pullarikunnu campus and 2 buses for the law campus.

**Observation 41: There is a strong need to strengthen infrastructure facilities for Sports and Games especially for athletics, basketball and swimming.**

University has the following facilities for sports

- Playground: Floodlit roofed basketball court, 200 mts track, Volleyball court, Handball court, Football/Cricket Ground

- Gymnasium: Fitness Centre, Yoga/Wrestling Hall

100 bedded sports hostel for Boys and Girls

**Observation 42: There is strong need for staff quarters for both teaching and non-teaching**

University has built modern residential facility for faculty and non-teaching staff members. These include 64 staff quarters, 12 faculty homes and 6 quarters for the statutory officers.

**Observation 43: The facilities in hostels need to be augmented.**

The hostels are being renovated using RUSA funding. University has sanctioned additional funding to build a state-of- the- art kitchen and mess hall for men and women hostels.

**Observation 44: The health center needs to be strengthened with better resources, both human and medical.**

There is a six bedded health centre in the University with modern diagnostic facilities. There are two medical officers, one of whom is a lady doctor. There are two nurses in health centre. The centre dispenses basic medicines and one dressing room for basic injuries. There is a gymnasium for women members of the staff and girls students and a lady instructor to provide necessary guidance. Under its auspicious health cards were given to all employees as a welfare scheme of the university.

**Observation 45: There is a need to apply for more Centres / Chairs supported/ promoted by UGC and other agencies.**

The university has started one International and Inter University Centre, seven Inter University Centres, nine Inter School Centres and one Business Incubation and Innovation Centre. Mahatma Gandhi University has 19 chairs. These chairs are conferred to leading academics, diplomats, and scholars and intellectuals of international repute.

**Observation 46: 5 % marks allotted for attendance may be scrapped for it is not an academic entity.**

5 % marks allotted for attendance has been scrapped.

**Observation 47: The Journals need to be acquire ISSNs**

University has following four journals with ISSNs numbers.

- *Indian Journal of Politics and International Relations* (ISSN; 0973-5011)and the *South Asian Journal of Diplomacy* (ISSN: 2229-3361)

- *Mahatma Gandhi University International Journal on Computing and Communication* (MGU IJCC) , December 2012 . ISSN: 2318-8850.

- *Journal of Political Economy and Fiscal Federalism (JPE &FF)* ISSN: 2395-6976.

- PEDAGOGICS is a peer reviewed academic journal with ISSN: 2229-7618.

**Observation 48: The choice of course needs to be promoted.**

The teaching programmes of the University are conducted under the Credit and Semester System (CSS). The programmes are organized in an interdisciplinary mode, marked by their innovative curricula and learner-oriented approaches. The CSS is essentially learner-friendly that advances interactive acquisition of knowledge in a multi-disciplinary matrix. The students are oriented to acquire knowledge with the latest developments in their fields of study. University offers four credit open course to all the masters' students. They can choose any course at any school or centre.

**Observation 49: Audit observations should be attended to.**

All audit observations are regularly attended

**Observation 50: Self-financing course need to be reviewed to strengthen salary and emoluments and working conditions of the faculty members for long term institutional well-being.**

University has initiated steps to strengthen the self-financing programmes.

**Observation 51: The relationship between affiliated institutions and the University must be reviewed to ensure academic standard at UG and PG levels**

The University has a vibrant Directorate of College Development Council (DCDC) which caters to coordinating the research needs of affiliated colleges. Directorate of College Development Council acts as the Coordinator for all affiliated colleges with the UGC (SWRO at Bangalore). There is strong interaction between departments of affiliated college and university schools and centers. Students and faculty members of the affiliated colleges often come to university for joint project and for the conduct advanced experiments using sophisticated instrumentation facilities. Joint projects are often submitted in collaboration with affiliated collages for funding.

**Observation 52: Immediate steps need to be taken to ensure continuous and uninterrupted power supply to the university campus.**

All the sophisticated instruments are supported with UPS facility. All the schools and centers are equipped with diesel generators. University has already initiated steps to obtain a hotline for campus.

**Observation 53: The school of Tourism can be attached to the School of Management.**

The School of Tourism Studies, a regular statutory department of the University, was established during this assessment period (June 2010) after receiving government concurrence considering the regional tourism resources and economic significance. The School which was set up in line with the prominent national and international tourism and hospitality institutions, focuses on skilled manpower requirements for the tourism, hospitality, aviation and allied sectors, besides involving in tourism policy formulation, consultancy services to the public and private sector etc.

The academic programmes of the School were brought under the Faculty of Management Sciences for which orders were issued. The academic activities of the School were also streamlined as per UGC specification (Central Government Gazette notification dated July 5, 2014).

In short, Mahatma Gandhi University has been able to address the issues raised by the previous peer committee in a time-bound manner, and the high

achievements of the University during the last five years reflect the level of growth trajectory as we documented in the self-study report. The fact that Mahatma Gandhi University has been chosen the best university in Kerala by the Chancellor of the State of Kerala during 2016 for the Award of Excellence is an indication that the steps being taken over a period of time are well rewarded.