

# Call for PAPERS Final call



# INTERNATIONAL CONFERENCE ON LIGHT MATTER INTERACTION & ULTRAFAST PROCESSES

1-4 MARCH 2024

Jointly organised by International Centre for Ultrafast Studies (ICUS), International and Inter University Centre for Nanoscience and Nanotechnology (IIUCNN), and School of Pure and Applied Physics (SPAP), Mahatma Gandhi University, Kottayam-686 560, Kerala, India

#### AIM OF THE CONFERENCE

Over the past decade, significant advancements have propelled the field of ultrafast phenomena to new heights. From enhancing our grasp of fundamental physics to driving innovations in photonics, materials science, and quantum computing, the study of light-matter interaction and ultrafast processes holds vast potential and is a swiftly evolving and thrilling field. The central objective of ICLMIUP 2024 is to furnish a comprehensive overview of the current status of developments in systems that encompass both light-matter interaction and ultrafast processes. This extends to the need for organisational principles, detailed material investigations, and the emergence of cutting-edge sources for generating ultrashort pulses of light, including technologies like high-harmonic generation, few-cycle optical pulses, x-ray-free electron lasers, and new material development. Another integral aim of ICLMIUP 2024 is to establish an international forum for gathering the community of scientists, engineers, and researchers in a unified framework, fostering novel ideas and collaborations in understanding the physics of light-matter interaction and ultrafast phenomena. Hence, ICLMIUP 2024 will be a platform for younger minds to interact with the pioneers of this field, the hot topic of discussion currently in the limelight of the Nobel Prize in Physics 2023.

#### CONFERENCE ORGANISATION

PATRON: Prof. (Dr.) C.T. Aravindakumar

Hon. Vice-Chancellor, Mahatma Gandhi University

**CHAIRMAN & CONVENOR** 

Prof. (Dr.) Nandakumar Kalarikkal

Hon.Director, International Centre for Ultrafast Studies (ICUS)

Mahatma Gandhi University

**Co-CONVENOR** 

Dr. Parvathy Nancy

International Centre for Ultrafast Studies (ICUS)

Mahatma Gandhi University

#### LOCAL ADVISORY COMMITTEE

Prof. (Dr.) Sabu Thomas

Former Vice-Chancellor, Hon. Director, IIUCNN, SNSNT & SEM

Mahatma Gandhi University

Prof. (Dr.) Cyriac Joseph

Director, SPAP, Mahatma Gandhi University

Dr. Sreekala M S

Joint Director, IIUCNN & SNSNT Mahatma Gandhi University



**School of Pure and Applied Physics** Mahatma Gandhi University, PD Hills PO, Kottayam Kerala

#### SCOPE OF THE CONFERENCE

- Ultrafast Processes
- Ultrafast Spectroscopy
- Ultrafast Photochemistry
- Light Matter Interaction
- Novel Sources of Lasers
- Imaging, Communication and Defense Applications
- **Nonlinear Optics**
- Laser Plasma Interaction
- Laser Ablation
- Laser Material Processing
- Spin Lasers
- Lasing from Disordered Systems
- Attophysics
- Ultrashort Laser Pulse Technologies
- Medical Photonics
- **Novel Nanomaterials**
- Additive Manufacturing
- Computational/ Theoretical Modeling

### **≥** REGISTRATION FEE

\*International delegate: € 400

\*International student: € 300

\*Accompanying person: € 300

Indian delegate: ₹ 5000

Student delegate from India: ₹ 3000

Accompanying person: ₹ 2500 Industrial delegate: ₹ 10000

#### \*International student: € 275 \*Accompanying person: € 275

**Early bird registration** 

\*International delegate: € 300

Indian delegate: ₹ 4000

Student delegate from India: ₹ 2500 Accompanying person: ₹ 2000

Industrial delegate: ₹ 9000

As a registered delegate, you'll receive a conference kit, complimentary meals, a boat cruise on Vembanadu Lake, and a conference banquet featuring traditional Kerala cultural programs

\* In the case of foriegn delegates, registration fee covers accommodation also

The conference registration fee may be sent in favour of:

The Director, University Centre for Ultrafast Studies (UCUS)

Mahatma Gandhi University

Account No: 42391888610

IFSC CODE: SBIN0070669

Branch Code:70669

Payable at State Bank of India, MG University Campus, Kottayam, Kerala-686560, India (Full address of the sending person should be included during money transfer)

FOR MORE INFORMATION

https://iiucnn.in/conferences/iclu2024 www.mgu.ac.in

Email: iclmiup@gmail.com

**KEY DATES** 

Abstract Submission Deadline 25 February 2024

Acceptance Intimation 27 February 2024

Registration Deadline 28 February 2024

Pre-conference Workshop 1 March 2024

Conference 2-4 March 2024













#### SPEAKERS GALLERY

Prof. Carlo Spartaco Casari Politecnico di Milano, Italy



Dr. Murukeshan Vadakke Matham Nanyang Technological University, Singapore



Prof. M K Jayaraj Hon. Vice Chancellor, University of Calicut, India



Dr. Erik Dujardin French National Centre for Scientific Research, France



Prof. Reji Philip Raman Research Institute, India



Dr. Vandana Sharma Indian Institute of Technology, Hyderabad, India



Prof. Rakesh K Vaid University of Jammu, India



Prof. Gilles Lerondel University of Technology of Troyes, France



Prof. Abhijit Saha
Former Director, UGC-DAE CSR, Kolkata
Visiting Professor, Mahatma Gandhi University, India



Prof. Swapna S Nair Central University of Kerala, India



Dr. P. Prem Kiran University of Hyderabad, India



Dr. Sai Santosh Kumar Raavi Indian Institute of Technology, Hyderabad, India



Dr. R. S. Jayasree Sree Chitra Tirunal Institute for Medical Sciences and Technology, India



Prof C Vijayan Honorary Professor, IIT Palakkad, India



Dr. Rajeev N. Kini Indian Institute of Science Education and Research (IISER), Thiruvananthapuram, India



Dr Jinto Thomas Institute For Plasma Research,India



Dr. Bojan Stojadinovic Institute of Physics, Belgrade, Serbia



Dr. Novica Paunović Institute of Physics, Belgrade, Serbia



Dr. Riju C Issac Cochin University of Science & Technology, India



Dr. Gayathri Bharathan
Indian Institute of Technology Delhi, India



Dr.Sreekanth Perumbilavil

Nanyang Technological University, Singapore

Central University of Panjab, India

Dr. Krishna Kanta Haldar



Prof. Olivier J.F. Martin EPFL STI IMT NAM, Switzerland



Prof Jacob Philip
Former Professor Emeritus at Cochin University of

Science and Technology & Visiting Professor Mahatma Gandhi University, India



Prof. Didier Rouxel
Institute of Jean Lamour, France



Prof. Alex Schechter

Department of Chemical Sciences, Ariel University,



Prof. Soma Venugopal Rao University of Hyderabad, India

Israel



Prof. N. Sandhyarani Nanional Institute of Technology, Calicut, India



Prof. Anindya Datta
Indian Institute of Technology, Bombay, India



Prof. P.M.G. Nambissan Saha Institute of Nuclear Physics, DAE Govt of India



Dr. Isabelle Russier Antoine Institut Lumière Matière, UMR5306 CNRS, France



Dr. Chaitanya Lekshmi Indira Plaksha University, India



Dr. Ravi A. V. Kumar Institute For Plasma Research, India



Dr. Sivarama Krishnan Indian Institute of Technology Madras, India



Dr. Suchand Sandeep C. S Manipal Institute of Technology, India



Dr. Mukesh Jewariya CSIR-National Physical Laboratory-New Delhi, India



Dr Anisha Gokarna University of Technology of Troyes, France



Dr. Akhilesh Kumar Mishra
Indian Institute of Technology Roorkee, India



Dr Bhuvanesh Ramakrishna Indian Institute of Technology Hyderabad, India



Dr. Subramanyan Namboodiri Varanakkottu National Institute of Technology, Calicut, India



Mr. Jagadesh Obulapuram Laser Science (I) Pvt. Ltd, India



Dr. Tapasi Sen
Institute of Nano Science and Technology, Mohali



Dr Anoop KK
Cochin University of Science & Technology, India













Dr Isabelle Royaud Institute of Jean Lamour, France

Dr Jemy James WITec, Gmbh, Germany

Mr.Gregory Malinowski Institute of Jean Lamour, France

Mr. Jon Gorchon
Institute of Jean Lamour, France









#### **ACCOMMODATION**

Accommodations for students and young researchers will be provided in the limited dormitory facilities available in the university guest house on a first-come, first-served basis. Other delegates and participants can contact the hotels near the university for their accommodations, as suggested in the conference

#### **CONFERENCE HIGHLIGHTS**

- Special focus on Ultrafast Phenomenon
- Prominent speakers and invitees from across the world
- Paper presentation in more than 10 thematic Areas
- Keynote, plenary, contributory and short invited lectures
- Poster presentation
- Industry-academia conclave
- Brain-storming sessions
- Young researcher awards
- Conference publication
- Follow-up programs

#### **INDUSTRY- ACADEMIA COLLABORATIONS**

We aim to facilitate robust business-to-business interactions among numerous companies from both India and abroad. This endeavor seeks to foster new collaborations, joint ventures, and technology transfers among multinational corporations, medium-scale enterprises, and small-scale industrial units worldwide.

#### **EXHIBITION**

A prominent exhibition featuring diverse companies within the subject field is scheduled. Additionally, we will extend invitations to ancillary units and companies specializing in supplying key characterization instruments.

# **ABOUT ICUS**

This interdisciplinary research center specializes in ultrafast spectroscopy, photo-physics, and photochemistry, conducting cutting-edge theoretical and experimental investigations into photo-excited state dynamics in functional materials. The center explores applications of pulsed lasers in material processing, femtosecond Laser Induced Breakdown Spectroscopy (fsLIBS), water splitting, optical diagnostics, light-activated advanced cancer therapies, and the laser-assisted fabrication of renewable energy materials. Recognizing the infancy of photon-based technologies in India, the center seeks to contribute to the country's economic and social potential by supporting collaborations between national and international institutions. By generating human resources in ultrafast laser science, the center strives to address the nation's future needs in Photonics, Energy, Communication, and Healthcare.

# **ABOUT KERALA**

Kerala, known as 'God's Own Country,' is a stunning state in southern India. Its lush greenery, backwaters, and beaches attract visitors worldwide. The region boasts diverse landscapes, from mountains to coastlines. Kerala's rich heritage, festivals, and delicious cuisine add to its charm. Whether relaxing on a houseboat or exploring wildlife sanctuaries, Kerala offers unforgettable experiences.





Mr. Vaidotas Stalilionis Light Conversion, Lithuania





Dr. Ponnan Sathiyanathan Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea



In view of your excellent contributions to the field of light matter interaction science, we would like to welcome you to give an expert talks and poster presentations at the conference. The scientific committee of the conference is aware of your published works in this field.

We would appreciate if you could submit a one-page abstract of the talk or presentation (in the MS Word format) at the earliest to the conference email:iclmiup@gmail.com or website https://iiucnn.in/conferences/iclu2024.

The Young Researcher Award and Best Poster Award will be presented during the event, distinguishing outstanding achievements among short-invited talks and student posters. An international jury will meticulously assess both the posters and short-invited talks, recognizing excellence and innovation in the contributions made by the participating students.

#### PUBLICATION OF RESEARCH PAPERS

The selected papers will be published in peer reviewed International Conference Proceedings. The details will be announced soon. We also have got acceptance from renowned publishers and will publish one book based on this conference. All the papers for the journals and for the books will be peer reviewed by international experts before publication. The proposed book and journals are indexed by Scopus database.

# ABOUT MAHATMA GANDHI UNIVERSITY

Established on October 2, 1983, Mahatma Gandhi University in Kerala caters to the higher educational needs of Central Kerala through its diverse programs at various academic levels. With 17 University Departments, 1 International and Inter-University Centre, and numerous affiliated colleges and research centers, the university offers research programs in forty disciplines, collaborating with renowned international institutions. The Erudite Scholar in Residence Programme facilitates direct interactions with Nobel Laureates. Notably, MGU has earned accolades, ranking 34th in the National Institution Ranking Framework (NIRF 2018), 11th in IndiaToday—MDRA Ranking 2018, and securing the 30th position in the recent NIRF ranking (April 2019). Additionally, CSIR and NISTADS have recognized the university's intellectual productivity and h-index of the Science faculty, further affirming its academic excellence.













