

**SCHOOL OF ENVIRONMENTAL SCIENCES
MAHATMA GANDHI UNIVERSITY
KOTTAYAM-686560**

TENDER NOTICE FOR PURCHASE OF EQUIPMENT

TENDER NOTICE No: SES/MGU/VERC/E-T2/2017 Date: 25.05.2017

Competitive tender in sealed cover for supply of **Equipment listed** is invited from reputed firms and authorized dealers so as to reach the office of the under signed not later than **3 p.m. on 12.06.2017**. Financial bid of the tenders will be opened on **12.06.2017** at **3.00 p.m.** in the presence of authorized representatives of tendered firms. The financial bid of the Tender will be opened on **13.06.2017** at 3pm

Sl. No.	Scheduled Item	Specifications	E.M.D Rs	Tender Fees
01	Algae Centrifuge	Annexure IV for detailed	2.5 % of the	1000+ 14.5 % of the
02	Automatic COD Digestion System	Specification	Estimated Value	VAT
03	Automatic Protein / Nitrogen Estimation System			
04	Automatic Fibre Estimation System (PC Compatible)			
05	Trinocular Microscope with Integrated Scientific Camera			

Director
School of Environmental Sciences, M.G.U

NOTE: (1) PLEASE SEE THE ANNEXURES I, ANNEXURE II, ANNEXURE III and ANNEXURE IV ATTACHED BELOW

(2) ALL THE DOCUMENTS RELATED TO THE TENDER CAN BE DOWNLOADED FROM THE UNIVERSITY WEBSITE- www.mgu.ac.in, in the section “Quotation/tender”

ANNEXURE I

General Terms and Conditions

1. The main envelop should be super scribed: **“Tender for Equip ment procurement under VERC Project ”**
2. The nonrefundable application fee of ₹1,000/- with the challan of VAT must be accompanied with ten der for each item. The application fee must b e as **D.D.drawn in favour of Finance officer, M.G. University.**
3. Tenders must accompany a copy of the “General Terms and Condit ions, Annexure I and Annexure II and III” section of this document, signed and stamped on each page indicating that they agree to these .
4. Last date of submission of tender along with requisite fee, EMD and all documents is **12.06.2017**. The DD f or EMD or any other accepted document must be drawn in of favor of **Director, School of Environmental Sciences, M. G. University, Kottayam, Kerala payable at SBT Mahatma Gandhi University Campus Branch.**
5. All other charges including VAT/CST, Excise Duty and other levies payable by C.I.P should be clearly indicated otherwise it will be presumed that the rates quoted are inclusive of all these charges and will not be paid.
6. The Excise Duty component (with percentage) should be indicated , as the University is exempted from the payment of Custom/Excise Duty. Exemption will be availed by providing Custom/Excise Duty Exemption Certificate with order.
7. The Delivery Schedule, Payment Terms & Warranty/Guarantee etc must be clearly indicated in the technical bid. The charges for extended warranty and/or Annual Maintenance Contract after the expiry of offered warranty period should also be specified in the financial bid.
8. The manufacturers’ printed literature/catalogue/drawing/user’s list i n respect of range of product being quoted should also be submitted with the offer.
9. Our Institute is registered with the Department of Scientific & Industrial Research (DSIR), so Excise duty exemption will be provided.

Other requirements for delivery and complete installation

1. Delivery at School o f Environmental Sciences, Mahatma Gandhi University, Kottayam
2. All other requirements for satisfactory installation of **equipment**.
3. It will be the responsibility of the supplier to deliver the ordered materials at School of Environmental Sciences, Mahatma Gandhi University, Kottayam.
4. All required materials for satisfactory installation are to be provided by the supplier at their own cost.

**ANNEXURE II:
TENDER FORM PART-I (TECHNICAL BID)**

PART-I (TECHNICAL BID) OF TENDER NO:

Last date for receipt:

Due date for opening Part –I (TECHNICAL BID):

Tenderer's Offer No:

Date:

From,

M/s.

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To,

Director,

School of Environmental Sciences, M. G. University,
Kottayam, Kerala, India

Dear Sir,

I/We have gone through the tendering conditions pertaining to the Tender and General Terms and Conditions of Contract and other requirement for delivery and complete Installation and Special Conditions of Contract contained herein with this tender document. I/we hereby agree to supply the stores conforming to the tender specifications incorporated in ANNEXURE I of the tender document and also agree to abide by your General Conditions of all Contracts and Special Conditions of Contract contained in the ANNEXURE I of the Tender document.

You will be at liberty to accept any or more of the items of stores offered by us and I/we shall be bound to supply you the stores as may be specified in the Purchase Order/Contract. I/We hereby agree to keep the price valid for your acceptance for a period of 30 days from the date of opening of Part-II (Financial bid) of the tender

I/We are also enclosing herewith all the leaflets catalogue etc. pertaining to the stores offered.

Yours faithfully

Stamp and Signature of the Tenderer

ANNEXURE III: TENDER FORM PART-II (FINANCIAL BID)

PART-II (FINANCIAL BID) OF TENDER NO:

Last date for receipt:

Due date for opening Part –II (FINANCIAL BID):

Tenderer's Offer No:

Date:

From,

M/s.

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To,

Director,

School of Environmental Sciences, M. G. University,

Kottayam, Kerala, India

Dear Sir,

In response to your invitation and as per your tendering and contracting conditions, the prices applicable for the scope of supply contained in ANNEXURE-I (TECHNICAL BID) of our tender are indicated in the format at annexure "A" to this tender.

We hereby agree to keep the price valid for your acceptance for a period of 30 days from the date of actual opening of Part-II (FINANCIAL BID) of the tender.

Yours faithfully,

Stamp and Signature of the Tenderer

ANNEXURE IV

Detailed Specifications

Name of the equipment	Specification
Algae Centrifuge	Rotational speed : 4000 -6000rpm •Operating voltage-230v •Custom Baldor Motor•Separate inlet and outlet pipes •Harvesting capacity - 95-120liters per hour continuous flow. •Plug and cord wire. ••Algal rotor cleaning air pump-200-300L/min -120VAC, 60 Hz, 1.4A, 150 Watts •Accessory tool kit for centrifuge •Three years warranty for instrument Optional Inbuilt /attached 1.5 KVA online UPS with 23 hrs backup.
Automatic COD Digestion System	<ul style="list-style-type: none"> • Automatic Microprocessor based Twelve Place Macro COD Digestion System With Water Condensers • Solid Metal Block Casted Aluminium Alloy Heaters, • Live graphical representation of time/temp gradient - PC chart software • Direct USB Port for PC Connectivity with live process view display of various stages with print options, • Upgradeable to Remote control module for wireless data monitoring • Borosilicate vessel : Reaction Vessel capacity : 250 - 500 ml Vol. (Sample Vol.) • Reflux Condensers with ball joint Temperature Range : 40 to 450°C • FRP Water tank with provision of tap water circulation to cool 12 Nos. of vessel during addition of reagents, • The Supplier should be ISO certified, CE Certified to fulfill good laboratory practice norms of International Safety requirements to ensure quality standard with certified calibration. • The instrument shall strictly confirm to the specifications with relevant brochure. The company should be reputed supplier should not be blacklisted or should not have any adverse remarks in the past. • Spares should be made available for minimum period of 10 years after the warranty period by

	<p>the supplier.</p> <ul style="list-style-type: none"> • Application : Potassium dichromate - Sulphuric acid digestion of water/waste water samples,
Automatic Protein / Nitrogen Estimation System	<p><u>A. Automatic Digestion System</u></p> <ul style="list-style-type: none"> • Eight Place 250 ml capacity PC Compatible Block Digestion System with all essential accessories • TFT Graphic Touch Screen Display with unique wireless mouse • Live graphical representation of time /temperature gradient • Direct USB Port for PC Connectivity with live process view display of various stages with print options, • Remote control module for wireless data monitoring • Unit should be upgradeable to Data Logger Module & Auto lift Module <p><u>B. Automatic Scrubber System</u></p> <ul style="list-style-type: none"> • Four Stage Fully Automatic Microprocessor based programmable acid neutralization scrubber with digital display integrated online with motherboard of digestion system with inbuilt pump for water recirculation • Auto start on operation of digestion system, Should automatically stops on completion of digestion cycle with a delay time of 5 minutes, Auto fill error in case of absence of inlet water • Auto waste disposal, auto drain of tank water, Auto indication of drain cycles, Low level& high level indication, <p><u>C. Automatic Distillation System</u></p> <ul style="list-style-type: none"> • Auto-sequencing Programmable Microprocessor based Distillation with inbuilt software, Colour Touch Screen high resolution TFT LCD Display, • Auto Intelligent run of programmable steps, Addition of Boric Acid, Dilution, KMnO_4 Addition for Available Nitrogen, Alkali Addition, Steam Processing, Residue Removal, Process over indication with inbuilt delay time features, Auto Titration Connectivity feature for future upgradation, Aspiration of Receiver Residue. • Facility to program and control distillate volume for determination of available nitrogen • Auto sensing of “NO WATER” condition in condenser & steam generator with alarm & signal to alert user. • Auto deactivation of operation after warning in case of user non availability

	<ul style="list-style-type: none"> • Enables Automatic monitoring and measuring of high temperature in distillate with sensor for auto warning signal and safety alarm to alert user to control distillate temperature. Temperature displayed digitally. • Auto reagent Level Sensor with Alarm for Reagents, Stainless steel non corrosive steam Generator • Inbuilt Automatic Printer for direct print out of results without connecting to PC. • Automatic calculation of results on input of titre value • Company should have good performance track record of at least 10 years with references of users of similar equipment. • The Supplier should be ISO certified, CE Certified to fulfill good laboratory practice norms of International Safety requirements to ensure quality standard with certified calibration. • The instrument shall strictly confirm to the specifications with relevant brochure. • The company should be reputed supplier should not be blacklisted or should not have any adverse remarks in the past. • Spares should be made available for minimum period of 10 years after the warranty period by the supplier.
Automatic Fibre Estimation System (PC Compatible)	<ul style="list-style-type: none"> • Automatic Eight Place PC Compatible auto-sequencing Fibre Estimation System for determination of Crude fibre, NDF, ADF, ADL, Cellulose, Hemicelluloses, Lignin etc. • TFT Graphic Touch screen Display with Wireless remote mouse facility • Live graphical representation of time/temp gradient • Direct USB Port for PC Connectivity with live process view display of various stages with print options, • Remote Control Module for wireless data monitoring, control and transfer to PC • Electrically operated air pump for declogging filter with reverse stream • Sintered Silica glass Crucible with P1 Porosity disc (8 Nos.) with borosilicate extraction vessels • Preheating hot plate for acid / alkali made of Casted aluminium alloy heater with Digital PID Control, • Unit should be upgradeable to Data Logger Module • The Supplier should be ISO certified, CE Certified to fulfill good laboratory practice norms of International Safety requirements to

	<p>ensure quality standard with certified calibration.</p> <ul style="list-style-type: none"> • The instrument shall strictly confirm to the specifications with relevant brochure. • The company should be reputed supplier should not be blacklisted or should not have any adverse remarks in the past. • Spares should be made available for minimum period of 10 years after the warranty period by the supplier.
Trinocular Microscope with Integrated Scientific Camera	<p><u>Specification for Trinocular Microscope with Integrated Scientific Camera</u></p> <ul style="list-style-type: none"> • Corrected Optical system • imported system with proper documents • Microscope should have right hand stage Stand with Koehler Illumination, 4 Position Nosepiece, Universal Power Supply, mechanical stage with non-extending rack and slide holder, Long life LED illumination with Auto off facility, built in handle and cord wrap, Dust Cover, Manual • Binocular tube with 30° inclination for easy viewing • Bright Field/ Dark Field / Phase contrast application. • Magnification from 40x to 1000x with 10x eyepieces and PLAN Achromat Objectives of 4x, 10xph1, 40xph2 & 100x (oil)ph3 • 4x –NA 0.10 WD -18.5mm or more; 10x – NA -0.25 WD – 10.6mm or more; 40x – NA- 0.65 or more WD- 0.6 mm or more; 100x – NA 1.25 or more WD – 0.13mm or more • Achromatic and aplanatic Condenser 0.9NA dry • Ergonomic Slide holder avoid slide chipping • LED illumination - cool white light . AgTreat (anti microbial) to be incorporated for eliminating growth of bacteria • Save energy with disabled & enabled option also • Integrated 5 or 10 Megapixel CMOS or CCD with USB and Analog outputs and software.

	<ul style="list-style-type: none"> • software (for PC) for image capture and simple measuring and annotation applications, • Optional : PC for microscope
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