SCHOOL OF ENVIRONMENTAL SCIENCES

MAHATMA GANDHI UNIVERSITY

KOTTAYAM-686560

SHORT TENDER NOTICE FOR PURCHASE OF EQUIPMENT

TENDER NOTICE No: SES/MGU/DDF/EQP/2025 Date: 23.07.2025

Competitive tender in sealed cover for the supply of **Portable Real-time Ambient Air Quality Monitoring System** (1no) is invited from reputed firms and authorized dealers to reach the office of the undersigned not later than **3 p.m. on 04.08.2025.** Technical bids of the tenders will be opened on **04.08.2025** at **3.30 p.m.** in the presence of authorized representatives of tendered firms. The financial bid of the Tender will be opened on **04.08.2025** at 4.30 pm

Sl. No.	**Scheduled Item**	**Specifications**	**E.M.D Rs**	**Tender Fees**
01	**Portable Real-time Ambient Air Quality Monitoring System** (1 No.)	Attached as Annexure -IV	2.5 % of the Estimated cost	5000

Sd/-

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: **"Portable Real-time Ambient Air Quality Monitoring System "**

2. The nonrefundable application fee is accompanied by the tender for each item. The application fee must be as **D.D.drawn in favour of the Finance officer, M.G.University**.

3. Tenders must accompany a copy of the "General Terms and Conditions, 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 tender submission along with the requisite fee, EMD and all documents is **04.08.2025**. The DD for EMD or any other accepted document must be drawn in favour of

Director, School of Environmental Sciences, M. G. University, Kottayam, Kerala payable at **SBI Mahatma Gandhi University Campus Branch.**

5. 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.

6. The manufacturers' printed literature/catalogue/drawing/user's list in respect of range of product being quoted should also be submitted with the offer.

Other requirements for delivery and complete installation

1. Delivery at the School of 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 the 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. ……

……

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. ……

……

……

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

Technical Specification for Real-Time Portable Air Quality Monitoring System

Portable Real-time Ambient Air Quality Monitoring System (1 No.) with precise and accurate data measurements and it shall support network connectivity options like GSM / WiFi / LoRa / NBIoT/ Ethernet / Modbus. The system should have an on-device memory, an on-device display and the system should be capable of future upgradation with other gas sensors

SL. No.	Description	Technical Specification
1.	**Technical Properties**	
	Processor	Quad Core ARM Cortex
	Memory	2GB RAM / 16GB eMMC ROM
	Device Interface	Display / On-device Software / API / Cloud Platform
	Internal Data Storage	Up to 16 GB or 90 days
2	**Communication**	
	Data Interval	2-30 (configurable) minutes
	Data-push Protocol	HTTP post request to host server
	Data-pull	HTTP request on device IP
	Firmware Updates	Over-The-Air Firmware Update
	Standby Connectivity	GSM (2G/3G/4G/LTE) for remote diagnosis, FOTA updates, and cloud calibration
3.	**Environmental**	
	Operating Temperature	-20 °C to 60 °C
	Operating Humidity	0-93% RH
	Recommended Temperature	-20 °C to 45 °C
	Recommended Humidity	15-90% RH
	Storage Conditions	10 - 40°C
4.	**Sensing**	
	Gas sample mode	Active-Sampling
	Warm-up time	Max Upto 30 min for gas monitoring 15 min for Noise and PM monitoring
5.	**Electrical**	
	Avg. Power Consumption	Up to 7 Watts
	Power Input Options	AC: 100VAC- 240VAC 50/60Hz DC: 24V, 2A Type C: ≥ 45W PD

	Battery	12.8V 12Ah / 153 Wh
6.	**Functional Specifications**	
	Preferred Mounting	Tripod Mount / Surface Level
	Installation Height	4-5 feet (1.2-1.5 meters)
	Weight	<10 kgs
7	Warranty	1 year
8	Enclosure	IP66 certified
9	**Parameter-1**	**Particulate Matter (PM2.5, PM10, PM1, PM100)**
	Range	Upto 5000 µg/m3 for PM1, PM2.5 , PM10 Upto 30 mg/m3 for PM100
	Resolution	0.1 µg/m3
	Min. Det.	1 µg/m3
	Working Principle	Laser scattering
	Parameter-2	**Sulphur Dioxide (SO2)**
	Range	0-20 ppm
	Resolution	0.01 ppm
	Min. Det.	0.01 ppm
	Working Principle	Electrochemical
	Along with measurement options for minor parameters such as Temperature, Humidity, Pressure	
10	**Optional items :** **1) Data analytics and visualisation software**	
	2) Nitrogen Dioxide (NO2) sensor	
	Range	0-10 ppm
	Resolution	0.01 ppm
	Min. Det.	0.01 ppm
	Working Principle	Electrochemical
	3) **Ground-level Ozone (O3)**	

	Range	0-8 ppm
	Resolution	0.01 ppm
	Min. Det.	0.01 ppm
	Working Principle	Electrochemical
	4. Carbon Monoxide(CO)	
	Range	0-10 ppm
	Resolution	0.01 ppm
	Min. Det.	0.01 ppm
	Working Principle	Electrochemical
	The item shall be delivered at MG University within 45 days from the date of PO.	