



# KANNUR UNIVERSITY

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Thavakkara, Civilstation P.O.,

Kannur, Kerala - 670002

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ANRF/ANRF I - 1/1057/2026

20.01.2026

## NOTICE INVITING E-TENDER

The Registrar, Kannur University invites e-tender(s) in **Two Bid System (Two cover)** for the Supply, Installation, Testing and Commissioning of **Set Up and accessories for Sensor and Impedance spectrometer** at the Department of Chemistry, Swami Anandatheertha Campus, Payyannur P.O., Edat, Kannur, from **original equipment manufacturers (OEMs) or authorized distributors/dealers** as per the technical specifications and schedule given below. The rate quoted should be inclusive of all taxes, installation charges and other charges. **The Registrar, Kannur University reserves the right to accept or reject the tenders without assigning any reason thereof.** The list of equipment/accessories proposed to be purchased, including its quantity and specifications are furnished in the schedule of items given below. Since this is an e-tender, only those bidders who have enrolled in the **<http://etenders.kerala.gov.in>** portal with their own Digital Signature Certificate (DSC) can participate in the tender. E-Tender document and other details can be obtained from the above e-portal.

## TENDER SCHEDULE

Description of Work	Supply, Installation, Testing and Commissioning of Set Up and accessories for Sensor and Impedance spectrometer
E-tender I D	2026_KnrU_828529_1
Tender Notice No.	ANRF/ANRF I-1/1057/2026
Start date and time for online submission of e - Tender	22.01.2026, 03 PM
Last date and time for online submission of e - Tender	10.02.2026, 03 PM
Date and time of tender opening	12.02.2026, 03 PM
Tender fee (Excluding GST)	<b>₹ 3500</b>
Earnest Money Deposit (EMD)	<b>₹ 23010</b>
Security Deposite	5% of the Contract Value
Place of supply and installation	Department of Chemistry, Swami Anandatheertha Campus, Payyannur P.O., Edat, Kannur, 670327

For further details, logon to <http://etenders.kerala.gov.in>



### SPECIFICATION OF THE EQUIPMENT

Sl No.	Name of the equipment	Required quantity
1	Set Up and accessories for Sensor and Impedance spectrometer	1

1	<p>Intelligent Gas Sensing Platform consisting of</p> <p>a) Test chamber: SS304 chamber with heating stage for 2" X2" sample with Max temperature of 450C along with PID programmable temperature controller (with a precision of <math>\pm 1^{\circ}\text{C}</math>(maximum), stability <math>\pm 1^{\circ}\text{C}</math>(maximum)K type thermo couple. Connections for gas (Input and Output), Connector for vacuum pump, View port on top flange with quartz window (3cm dia). Ports for electrical connectors for heater, thermo couple, 4 probes etc,venting, Humidity sensor etc</p> <p>b) Electrical System: Electrical feed throughs for sample stage heater and thermo couple and feed through for 4 probes (either with BNC or Banana Connections as per user choice.) Note. Gas entry is provided with following options. Removable attachment which when connected can make gas flow close to the test sample. When this attachment is removed gas will flow from diameter of chamber (not close to the chamber).</p>
	<p><b>1. General</b></p> <ul style="list-style-type: none"> <li>• Bench-top graphical Source Measure Unit with 4-quadrant operation</li> <li>• Capable of sourcing and measuring voltage and current</li> <li>• Suitable for semiconductor, material characterization, and R&amp;D applications</li> </ul> <p><b>2. Electrical Specifications</b></p> <ul style="list-style-type: none"> <li>• Output Voltage Range: <math>\pm 200\text{ V}</math></li> <li>• Output Current Range: <math>\pm 1.5\text{ A}</math> (DC and Pulse)</li> <li>• Maximum Output Power: <math>20\text{ W}</math></li> <li>• Number of Channels: 1</li> <li>• Operating Modes: DC and Pulse</li> </ul> <p><b>3. Source &amp; Measure Resolution</b></p> <ul style="list-style-type: none"> <li>• Voltage Source Resolution: up to <math>100\text{ nV}</math></li> <li>• Current Source Resolution: up to <math>100\text{ fA}</math></li> <li>• Voltage Measurement Resolution: up to <math>100\text{ nV}</math></li> <li>• Current Measurement Resolution: up to <math>10\text{ fA}</math></li> </ul> <p><b>4. Accuracy</b></p> <ul style="list-style-type: none"> <li>• Voltage Accuracy: <math>\pm 0.015\% + 300\text{ }\mu\text{V}</math></li> <li>• Current Accuracy: <math>\pm 0.06\% + 100\text{ pA}</math> (depending on range)</li> </ul> <p><b>5. Measurement Functions</b></p> <ul style="list-style-type: none"> <li>• Voltage Source</li> <li>• Current Source</li> <li>• Voltmeter</li> <li>• Ammeter</li> </ul>



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- Ohmmeter (2-wire and 4-wire Kelvin)
- Battery Simulator
- Electronic Load
- Pulse Generator

#### **6. Sweep & Analysis Functions**

- Linear and Logarithmic sweep
- Pulsed sweep and LIST sweep
- I-V curve measurement and display
- Graph View, Scope View, and Record View
- Data storage up to 1 million points

#### **7. User Interface**

- 5-inch color touch screen display
- Graphical and numerical display modes
- Front USB port for data storage and screen capture

#### **8. Connectivity & Interfaces**

- Standard Interfaces: USB, LAN, Digital I/O
- Optional Interface: GPIB
- SCPI command compatible
- Optical fiber interface for multi-unit synchronization

#### **9. Guard & Low Current Measurement**

- Guard output for ultra-low current measurements
- Supports triaxial connection for leakage reduction

#### **10. Environmental & Mechanical**

- Operating Temperature: 0 to 40 °C
- Operating Altitude: up to 2000 m
- AC Input: 90–260 V, 50/60 Hz
- Power Consumption: approx. 250 VA
- Cooling: Forced air (fan)

#### **11. Compliance & Accessories**

- Supplied with power cord, user manual, and test leads
- Calibration certificate traceable to national standards

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c) Providing gas/volatile liquid (VOC) distribution system in the testchamber. 3 nos VOC bubblers are provided for VOC like Ethanol, acetone, toluene Gas /liquid distribution is designed and arrangement for gas mixing and precise concentration control in the test chamber is achieved as follows. 1 small flow (0-10 SCCM) and 1 large flow (0-1000 SCCM) MFC from Alicat USA or equivalent are used. Sensing gases (user provided) and connected to a gas manifold with input valves and output valve and are connected to the small flow MFC. The dilution gas is connected to large flow MFC. 2 nos of dilution chambers are provided with appropriate gas lines and solenoid valves. By operating the solenoid valves appropriately from PC required dilution can be achieved easily and precisely. The first dilution chamber can dilute gas up to 1/10000. This gas is not routed through same small flow MFC and filled to the second dilution chamber for a further dilution of 1/10000. Thus one can dilute gas to any level up to 1/100000000 from 100% gas cylinder. For VOC either small amount of gas can be bubbled through a bubbler (kept at temperature RT to 60C) for



short time or the VOC can be diluted as mentioned above and sent to chamber. Dilution chambers and main chamber have facility to be evacuated using rotary pump (Pfeiffer Vacuum Germany or equivalent) to remove any undesirable gas. Pirani gauge (from Pfeiffer or equivalent) for measuring vacuum

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The entire system can be computer controlled for programming, instrument control, data acquisition, real time plotting, data storing and printing and capable to measure I-t, R-t, I-V characteristics etc. Computer control is The sample temperature and gas flow also will be controlled by same software. The software and GUI will be developed in discussion with user.

### Terms and Conditions

1. The tender fee and EMD should be remitted online (SBI MOPS), as indicated on the e-tender website. **The 18% GST on the tender fee must be remitted directly to the GST department by the bidder.**

Sl. No	Equipment	Tender Fee in Rupees (₹)			EMD (₹)
		Excluding GST	GST (18 %)	Total (₹)	
1	Set Up and accessories for Sensor and Impedance spectrometer	₹ 3500	₹ 630	₹ 4130	₹ 23010

2. All the MSMEs with Udyog Aadhar Registration or any other body specified by the Ministry of Micro, Small and Medium Enterprises **working within the state of Kerala will be exempted from the payment of Tender Fee and EMD.** Only Manufacturers for Goods and Service Providers for Services are eligible for EMD/Tender fee exemption under MSME category.

3. Custom Clearance of the consignment including all the stages of custom clearance will be under the purview of supplier.

4. The tender should be submitted in two cover system (Technical bid & Financial bid).

5. The successful bidder shall, before signing the agreement and within the period specified in the letter of acceptance of his tender, deposit a sum equivalent to **5 % of the value of the contract** by way of Demand Draft drawn in favour of the Finance Officer, Kannur University payable at SBI Kannur Branch or Kannur Branch of other Nationalized or Scheduled bank, **as performance security** for the satisfactory fulfilment of the contract.

6. The bidder should be registered company/firm. Certificate of incorporation/Company registration certificate/Memorandum and Articles of Associations/Valid GST registration certificate/Valid Income tax registration certificate/Valid Service tax registration certificate should be uploaded/submitted along with the tender.

7. The bidders shall keep their rate firm for a period of **120 days**.

8. Profile of Bidder as per Annexure 1 shall be provided.

9. The bidder should have the responsibility to attend the first level service if any complaint report. The bidder should provide minimum one preventive maintenance during warranty period. Relevant documents or undertaking signed by the personnel with address and contact person's name, phone no, and URL of complaint logging website to be submitted in case, if the bidder doesn't have their own service centre in Kerala and the



bidder authorize another service centre/service engineers for attending service.

**10.** The earnest money deposit (EMD) of the unsuccessful bidders will be returned through ONLINE Transaction and the EMD of successful bidders will be discharged upon the bidder executing the contract and furnishing the security deposit that will have to be deposited for the satisfactory fulfilment of the contract.

**11. Forfeiture of EMD:**

(i) If any bidder withdraws from his tender before the expiry of the bid validity period specified **or**

(ii) in case after being successful bidder, he/firm fails to sign the contract, and to furnish the performance security.

**12.** The bid shall contain detailed technical specifications, Brochures and pamphlets of the item/items quoted.

**13.** All the claimed specifications (make, model, year of manufacture, warranty etc.) should be mentioned in the Brochure or Catalogue of the equipment.

**14.** All charges, taxes, duties and levies should be clearly indicated and the rate tendered should be inclusive of all taxes and other charges.

**15.** The installation, commissioning and the initial operation will be the responsibility of the supplier.

**16.** In case of under performance during the warranty period, the item should be replaced and the period of warranty will recommence from the date of replacement.

**17. The payment will be made after completion of supply, installation and commissioning.**

**18.** The final acceptance of the tenders rests entirely with the Kannur University who do not bind themselves to accept the lowest or any tender.

**19.** Communication of acceptance of the tender normally constitutes a concluded contract. Nevertheless, the successful bidder shall also execute an agreement for the due fulfilment of the contract within the period to be specified in the letter of acceptance. In cases where a successful bidder, after having made partial supplies fails to fulfil the contracts in full, all or any of the materials not supplied may at the discretion of the Registrar, be purchased by means of another tender/quotation or by negotiation or from the next higher bidder who had offered to supply already and the loss, if any, caused to the University shall thereby together with such sums as may be fixed by the University towards damages be recovered from the defaulting bidder.

**20.** The bidder shall undertake to supply materials according to the standard sample and /or specifications.

**21.** No representation for enhancement of rates once accepted will be considered.

**22.** The prices quoted should be inclusive of all taxes, duties, cess etc., which are or may become payable by the contractor under existing or future laws or rules of the country of origin/supply or delivery during the course of execution of the contract.

**23.** Special conditions, if any, of the bidders attached with the tenders will not be applicable to the contract unless they are expressly accepted in writing by the purchaser.

**24.** The bidder shall quote their rate in the standard BOQ provided, indicating the break up details.

**25.** The provisions of Kerala Stores Purchase Manual are applicable to this Tender and further proceedings.

**26.** The University reserves all rights to accept or reject any or all the tenders without assigning any reason whatsoever at its discretion.

**27.** The bids shall be opened online at Kannur University on the date mentioned in Invitation Bid. If the date fixed for opening happens to be a holiday/due to net failure/ due to technical issue, the tenders will be opened on the next working day, at the same time.

**28.** Prices shall be quoted in Indian currency only.

**29.** Bidders must not be blacklisted by any Government or Public Sector Undertaking (PSU).



30. The vendor should provide list of at least 5 installation of similar systems in Indian universities/ IITs/NITs/IISERs/ other govt research laboratories in the last 3 years

31. Spare/ accessory support for a minimum period of 10 years should be provided by the supplier.

**GST No. of Kannur university : 32AAAGK0152J1ZT**

#### **DOCUMENTS TO BE SCANNED AND UPLOADED**

1. Bidder Profile (as per format mentioned in Annexure 1)
2. Bid Particulars (as per format mentioned in Annexure 2)
3. Preliminary Agreement in Kerala stamp paper of ₹200/- (as per format mentioned in Annexure 3)
4. Form of Tender (as per format mentioned in Annexure 4)
5. Integrity Pact (as per format mentioned in Annexure 5)
6. Copy of GST payment receipt to Kerala GST department (18% of Tender Fee). (MSME Firms - Upload MSME certificate/ UDYAM registration certificates (Refer T&C No. 2)).
7. Scanned copy of valid registration certificate (GST) & PAN Card
8. Scanned copy of relevant Brochure of the equipment including make & model, compliance sheet with catalogue page number and original catalogue and copy of its certifications like ISO certification.
9. Valid authorisation certificate from OEM (MAF) (in case of resellers)
10. Warranty certificate/details (**Minimum 5 year**)
11. Details of Service Centres in India
12. Non blacklisting declaration by the bidder
13. Details of previous installations in India (at least **5 installation** of similar systems in Indian universities/ IITs/NITs/IISERs/ other govt research laboratories) within **last 3 years**. (Refer T&C No. 30)
14. Declaration regarding Spare/Accessory Support (**Spare parts availability for at least 10 years**)
15. Other certificates/declarations

Sd /-

Prof. (Dr.) Joby K Jose  
Registrar



**ANNEXURE 1****BIDDER PROFILE**

Sl.No.	Particulars	
<b>Details of bidder (Firm/Company)</b>		
1	Name	
2	Address	
3	Telephone & Mobile Number	
4	Email & website	
<b>Details of Authorized Person</b>		
5	Name	
6	Address	
7	Telephone & Email	
<b>Information about the company</b>		
8	Status of Company (Public Ltd. / Pvt. Ltd)	
9	Details of Registration of Firm (Provide Ref.)	
10	Number of Professionals	
11	Location and address of offices (in India & overseas)	
12	Service Tax Registration Number	
13	Income Tax Registration Number(PAN)	
14	GST Registration Number	

**Signature of the Bidder**

**ANNEXURE 2**  
**TECHNICAL BID (BID PARTICULARS)**

1. Tender Number	:-----
2. Name of the Bidder	:-----
3. Full Address of the Bidder	:----- -----
4. Name of the actual signatory of the product(s) offered	:-----
5. Bidder's proposal number and date	:-----
6 . Name & Address of the officer to whom all references shall be made regarding the Tender	:-----
Telephone	:-----
Mobile	:-----
E-mail	:-----

Bidder Signature Name	-----
Designation	-----
Company	-----
Date	-----





## ANNEXURE - 3

### PRELIMINARY AGREEMENT

Articles of agreement executed on this the ..... day of .....  
..... between the Registrar, Kannur University (hereinafter referred  
to as “the University”) of the one part and Shri.....  
..... (H.E. name and address of the tenderer)  
(hereinafter referred to as “the bounden”) of the other part.

WHEREAS in response to the Notification No..... dated ..... the  
bounden has submitted to the University a tender for the .....  
specification therein subject to the terms and conditions contained in the said tender;

WHEREAS the bounden has also deposited with the University a sum of Rs.....  
`..... as earnest money for execution of an agreement undertaking  
the due fulfillment of the contract in case his tender is accepted by the University

NOW THESE PRESENTS WITNESS and it is hereby mutually agreed as follows:

1. In case the tender submitted by the bounden is accepted by the University and the contract for ..... is awarded to the bounden, the bounden shall within .....days of acceptance of his tender execute an agreement with the University incorporating all the terms and conditions under which the University accepts his tender.
2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, the University shall have power and authority to recover from the bounden any loss or damage caused to the University by such breach as may be determined by the University by appropriating the earnest money deposited by the bounden if the earnest money is found to be inadequate the deficit amount may be recovered from the bounden his properties movable and immovable in the manner hereinafter contained.  
.
3. All sums found due to the University under or by virtue of this agreement shall be recoverable from the bounden and his properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue and in such other manner as the University may deem fit.



In witness where of Shri..... (name and designation) for and on behalf of the University and Shri.

..... Bounden have hereunto set their hands the day and year shown against their respective signatures.

Signed by Shri. .... (date) .....

In the presence of witnesses:

1. ....
2. ....

Signed by Shri. .... (date) .....

In the presence of witnesses:

1. ....
2. ....



ANNEXURE – 4

**FORM OF TENDER**

**Name of Work:** Supply, Installation, Testing and Commissioning of **Set Up and accessories for Sensor and Impedance spectrometer** at the Department of Chemistry, Swami Anandatheertha Campus of Kannur University.

From,

.....

.....

.....

To,

The Registrar,  
Kannur University,  
Thavakkara, Kannur.

Sir,

I/We do hereby tender to execute the works enumerated in the Schedule accompanying in accordance the terms in your tender Notification.....date.....and specifications and conditions of contract in the bidding document.

In consideration I/We being invited to tender, I/We agree to keep the tender open for acceptance 120 days from the date of submission thereof and not to make any modifications in its terms and conditions which are not acceptable.

I/We agree that the tender inviting authority shall, without prejudice to any other right or remedy be at liberty to forfeit the earnest money/ Bid security absolutely and also recover from me/us the entire loss that may be caused to the Kannur University by the retender or rearrangement of the work or otherwise under the provision of the Revenue Recovery Act or otherwise.

Signature :

Full Name & Address of Bidder :



ANNEXURE - 5

Integrity Pact

CERTIFICATE

I/We.....undertake that the tender submitted by us is downloaded from the website [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in) and any deviation, of detected, at any stage, would entitle the Employer to reject our bidding/offer without assigning any reason or recourse to any penal action and would be legally binding on us.

Signature ..... (of tenderer)

Seal .....

