KANNUR UNIVERSITY
(PMU D SECTION)

Tel:04972715243,email:registrar@kannuruniv.ac.in, sopmud@kannuruniv.ac.in

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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 **Electrochemical Work station (accessories and attachment)** at **Department of Chemistry** Swami Anandatheertha Campus, Payyanur, Kannur University under PM USHA Scheme from original equipment manufacturers (OEMs) or authorized distributers/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

Tender ID	2025_KnrU_763373
Name of work	Supply, installation, testing and commissioning of **Electrochemical Work station (accessories and attachment)**
Last date for receipt of Tender	09/06/2025, 11 AM
Date and time of opening tender	10/06/2025, 3.00 PM
EMD	Rs: **34980** /-
Tender fee	**6254** /- (**5300** + **954**)
Place of supply and installation	**Department of Chemistry** Swami Anandatheertha Campus, Payyanur, Kannur University

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

Specification

1. Multichannel Potentiostat Galvanostat

Multichannel System for up to 12 Potentiostat Galvanostat in one single chassis.

It should be possible to control all the channels through one PC and should be possible to run all 12 channels in one PC.

System should have provision to add different modules such as EIS and additional electrometer.

Instrument also should have the provision to control channels by three different PC to perform 3 parallel measurements.

Each channel should have following specifications. Price for each should be quoted separately.

Accessories:

1.EIS module (1 No Required Now)

Hardware and software for EIS measurements in potentiostatic and galvanostatic control,

Frequency range of 10 µHz - 1 MHz. It should be supplied with powerful fit and simulation software for the analysis of impedance data.

Frequency resolution 0.003%,

Input range ± 10 V, Signal types 1 sine, 5 sine, 15 sine,

Input channels E and I from the Potentiostat/ Galvanostat or X and Y external signals,

AC amplitude 0.25 mV to 0.30 Vrms in potentiostatic mode

0.0002 - 0.3 times current range in galvanostatic mode.

Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky,

Data analysis: Fit and Simulation, Find circle, Element subtraction

2. Bi-potentiostat Configuration: Required Now: Qt. 1:

The system must be equipped with an 'internal' dual mode bi-potentiostat option that can be worked in two independent modes explained below. Configurations combining two separate channels will not be allowed: Parallel measurements should be possible on two working electrodes sharing the same counter and reference electrode. In the first mode, a fixed potential is required to be applied to the second Working Electrode while applying a potential step or a sweep to the first Working Electrode. In the second mode, a potential offset with respect to the first working electrode is required to be applied to the second working electrode.

3. A Rotating Ring Disk Electrode and RRDE Cell Set-up: Required Now Qt. 1

A complete set-up for rotating ring disk electrode (GCPT Electrode) measurements is required including a dedicated RRDE cell for oxygen reduction reaction (ORR) studies. The RRDE should be high end unit with sealed liquid Hg contacts for very low noise measurements. There must be a provision to easily mount exchangeable electrode tips on the shaft of RRDE that is controlled by a motor control unit. The set-up must be suitable for measurements at very low currents (pA) or electrochemical impedance measurements. The rotor should have the capability for remote as well as manual control. A maximum rotating speed of 10,000 rpm or more is required for high speed hydrodynamic EIS evaluation of diffusion coefficients for ORR measurements. The RRDE software should have fully automated analysis and

plotting option for Levich and Koutecky-Levich analysis.

· Motor speed range setting 100 - 10,000 RPM in 1 RPM steps

· Manual speed setting 100 - 10,000 RPM in 1 RPM steps

· Acceleration/deceleration 4,000 RPM/s

Set up should be complete and should have vessel, vessel lid, Reference Electrode and Platinum Sheet Counter electrode and this set up is dedicated for RRDE experiment.

4. 50ml basic electrochemical cell Required Now Qt. 1

GC tip working electrode, Ag/Agcl reference electrode, pt wire counter electrode, base plate, stand rod.

5. Corrosion cell for Flat cell and Irregular sample :1 each to be provided with dedicated Reference and counter electrode. Cell for Flat cell with 1cm2 exposure area with reference and counter electrode to be provided. Cell for irregular sample to be dipped full sample along with reference and counter electrode to be provided.

6. PEC H cell: 250 volume of each chamber is 250ml. Having 3Nos 16mm Port in the side & Top port. Additional Light input port 20mm diameter. H cell to be supplied with Pt coil counter electrode 250 mm, Ag/Agcl reference electrode 12 mm diameter , 120 mm length, Ag/Agcl reference electrode 6mm diameter, and Nafion 117 10x 10cmsheet.

7. Branded PC Required Now Qt. 1 – Minimum 8 GB RAM, 1 TB Hard disk, with 21 inch Monitor and along with all required accessories.

8. Current boosting (Future Upgrade): Expandable anytime in future to ±10A measured current or better with Current Booster at unchanging compliance voltage of ±20 V and 0.0003% measured current resolution. Each channel should have booster connection facility.

9. Warranty for 5 Years

10. The vendor should provide list(at least 10) of installation of similar system in Indian Universities/ IITS/NITs/IISER and other government research laboratories with contact detailsin last 3years

11. The vendor should have proper qualified engineer/s located near to our place for prompt and efficient after sales services for the next at least 10 years. They should also have established local application laboratory to assist us for our regular assistance for our samples/methods/data interpretations. Quoted item should be the latest model with the availability of all the parts and required accessories atleast for 10 years. The instrument should be globally recognized one.

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Software:

The Software to be provided with the potentiostat / galvanostat should be comprehensive, fully windows based with three dimensional view of graphics and analysis software. Software should record current, voltage and time for cyclic and linear sweep voltammetric measurement. It should be possible to record current, voltage and time data in tabular format for each measuring point in voltammogram. Software should be capable of supporting a wide variety of electrochemical techniques as mentioned below.

· Cyclic & Linear Sweep Voltammetry
· Linear Polarization
· Differential Pulse, Sampled DC & Square Wave Voltammetry
· Chrono - amperometry and chronopotentiometry ($\Delta t > 1$ ms)
· Standard procedures given above.
· Programming of different electrochemical methods and optional accessories
· Comprehensive database structure & powerful data analysis tool.
· Inbuilt electrochemical spread sheet
· User programmable formulae to new plots.
· Powerful graphic engine with useful features such as individual Axis scaling, overlays, multiple Y axes, plot addition, zooming and rotation.
· Each plot can be saved as an image file so as to use directly in paper or presentation.

Option for Future Upgradation:

- Instrument should be capable of adding spectrometer to do "in-situ" measurement like UV VIS, RAMAN spectroscopy with the same vendor/ single OEM with Single software control.
- Instrument should have the option to add SECM in future whenever required.

Terms and Conditions

1. The tender should be submitted in two cover system (Technical bid & Financial bid).
2. Prices shall be quoted in Indian Currency only.
3. **Tender fee and EMD should be remitted through SBI Internet banking/ online NEFT transaction as indicated in the e-Tender notice. All payments including EMD should be made through online but 18% GST of Tender Fee should be remitted to GST Department directly and upload the receipt in the e-procurement portal.**

Sl. No	Item	Tender Fee (excl GST)	Tender Fee (18% GST)	EMD
1.	**Electrochemical Work station (accessories and attachment)**	**5,300**	954	**34,980**
TOTAL		**5,300**	954	**34,980**

4. The bidders shall keep their rate firm for a period of **120 days**.
5. The bidder should upload along with his tender a preliminary agreement executed and signed in Kerala Stamp Paper of value of Rs.200/- as per format given.
6. 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 security** for the satisfactory fullfillment of the contract.
7. The total rate tendered should be inclusive of all taxes and other charges.
8. All bid/tender documents are to be submitted online only and in the designated cover(s)/envelope(s) on the website. Tenders/bids shall be accepted only through online mode on the website and no manual submission of the same shall be entertained.
9. Profile of Bidder as per Annexure1 shall be provided.
10. The earnest money of the unsuccessful bidders will be returned through ONLINE NEFT 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. The bid shall contain detailed technical specifications, Brochures and pamphlets of all items quoted.
12. All the claimed specifications (make, model, year of manufacture, warranty etc) should be mentioned in the Brochure or Catalogue of the equipment
13. The installation, commissioning and the initial operation will be the responsibility of the supplier.
14. 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.
15. The payment will be made after completion of supply, installation and commissioning.
16. The bidder shall undertake to supply materials according to the standard sample and /or specifications.
17. No representation for enhancement of rates once accepted will be considered.
18. The bidder shall quote their rate in the standard BOQ provided indicating the break up details.
19. The supplier shall ensure the quality of the stores supplied.
20. The provisions of Kerala Stores Purchase Manual are applicable to this Tender and further proceedings.
21. The University reserves all rights to accept or reject any or all the tenders without assigning any reason whatsoever at its discretion.
22. 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, tender will be opened at the next working day at the same time.
23. The bidder should have the responsibility to attend the first level service if any complaint report.
24. The final acceptance of the tenders rests entirely with the University who do not bind themselves to accept the lowest or any tender. But the bidders on their part should be prepared to carry out such portion of the supplies included in their tenders as may be allotted to them.
25. 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.

DOCUMENTS TO BE SCANNED AND UPLOADED

1. Bidder Profile(as per format mentioned in Annexure1)
2. Scanned copy of valid registration certificate (GST) & PAN Card
3. Scanned copy of Preliminary Agreement in Stamp Paper of Rs.200/- (as per format mentioned in Annexure 2)
4. Scanned copy of relevant Brochure of the equipment including make & model and copy of its certifications like ISO certification.
5. Copy of payment receipt of tender fee and EMD
6. Copy of GST payment receipt of tender fee (18 % of tender fee)(MSME firms attach MSME certificate & UDYAM registration certificate)
7. Warranty details.

Prof. (Dr.) Joby K Jose
Registrar

ANNEXURE 1
BIDDER PROFILE

Sl.No	Particulars	
Details of bidder(Firm/Company)		
1	Name	
2	address	
3	Telephone & Mob	
4	Email & website	
Details of Authorized Person		
5	Name	
6	Address	
7	Telephone & Email	
Information about the company		
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

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. .....