KANNUR UNIVERSITY
(PMU D SECTION)

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PMU-D/DIII/11105/2025

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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 **Glove Box** 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_768145
Name of work	Supply, installation, testing and commissioning of **Glove Box** **(Quantity 1)**
Last date for receipt of Tender	22-07-2025 , 11.00 AM
Date and time of opening tender	26-07-2025, 3.00 PM.
EMD	Rs: **25700**/-
Tender fee	Rs: **3900**/-{excl. GST}
All the MSMEs with Udyog Aadhar Registration working within the state of Kerala will be exempted from the payment of Tender Fee and EMD. Under MSME category, only Manufactures for Goods and Service Providers for Services are eligible for EMD/Tender fee exemption	
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

Two port Glove Box.

Enclosure

- The working space of each glove box should be at least 890 mm in height, 1200 mm in length and 760 mm in depth.
- The window materials should be impact-resistant polycarbonate that is at least 10 mm thick.
- Main body must be SS304 or SS316 brushed stainless steel, at least 2.5 mm thick.
- The trays, rails and other components in the ante-chambers should also be of 304 grade or 316 grade or similar corrosion/chemical resistant grades of brushed stainless steel.
- The external should either be powder coated or Spray paint finish.
- We strongly prefer a system in which the space underneath the glove box is empty.
- Need a modular system that can be expanded further. The side-panels must be removable to accommodate future expansions.
- Glove Ports: Delrin(POM) Natural white/PP

Programmatic Logic Control

- Glove box should be controllable with independent and fully integrated Siemens programmatic logic control (PLC), with a touch panel interface
- The touch panel interface should serve as a central control unit for all glove box functions and procedures.
- All glove box functions should be accessible via the touch panel.
- Graphical display of the box pressure, O2 and moisture levels should be available in the touch panel interface.
- Automatic Box purge should be possible via PLC.
- PLC should trigger an automatic box purge either due to high O2 or moisture or both in the glove box or an automatic timer option to trigger box purge at a pre-set time for a pre-set duration.
- Touch panel implementations showing this should be provided. A copy of relevant documentation from the user manual should also be provided.
- Gas (argon or nitrogen) flow rate of 200 liter/min or greater during purging should be possible.
- The O2 and moisture trigger set-point range for automatic box purging should be between 10-999 ppm. Touch panel implementations showing this should be provided. A copy of relevant documentation from the user manual should also be provided.

Purifier

- Single Column Gas purification system 7 inch Siemens touch screen HMI, remote and graphical PLC controller with Auto-regeneration
- Glove box should have at least one independent purifier capable of purifying the glove box ambient to attain a purity of <1 ppm H2O and O2.

- The removable capacity should be a minimum of 41 liters for oxygen and at least 1400 grams for moisture. Specification sheets or data sheets attesting to this must be provided.
- The purifier should be fully regenerable with an automatic/programmed control using forming gas (10% H_2 or lower) or Ar or N2.
- The gas circulation blower should be capable of a circulation rate of at least 100 m3/hour. The maximum and minimum circulation rates of the blower should be provided and should work without any heat exchanger.
- The blower speed should be dynamically controlled via program logic based on the moisture and oxygen content in the glove box, to make the blower operation power efficient. Implementation diagrams or specifications that prove this is possible must be provided.
- The purifier loop must have at least two H14 dust filters (HEPA or ULPA filters) -- one for filtering inlet gas (nitrogen or argon) and one for filtering the box ambient before it goes out to the gas circulation system.
- Oil bubblers should NOT be used in any of the gas circulation lines. The mechanism for pressure regulation should be clearly mentioned.
- NO component in the gas circulation line (except for the vacuum pumps) should use oil or oil containing parts.
- Eco Mode Operation
- Auto purge with time sequence or ppm of O_2 and H_2O

Sensors

- A solid-state/Electrochemical oxygen sensor capable of measuring oxygen levels from 0.1 ppm to 1000 ppm should be provided with box.
- A solid-state moisture sensor capable of measuring moisture levels from 0.1 ppm to 3000 ppm should be provided with box.

Box pressure

- Box pressure should be controllable automatically (via programmatic logic) within a pressure range of -15 to +15 mbar.
- The desired pressure should be settable via the touch panel interface. Touch panel implementations showing this should be provided. A copy of relevant documentation from the user manual should also be provided.

Gloves and Glove Port Covers

- There should be 2 POM (polypropylene is preferred) glove ports for each box and butyl gloves should be provided for these glove ports.
- The size of each glove port should be at least 9" in dia
- The glove ports should be O-ring sealed against the gloves.
- Must include at least one glove port cover.
- The thickness of the butyl gloves should be a minimum of 0.4 mm

Automatic Large Antechamber

- The box must have one large ante-chamber for sample transfer.
- The ante-chamber should be cylindrical with a diameter of at least 400 mm and a length of at ~600 mm.
- The doors should preferably be with a swing-type hydraulic-assisted opening mechanism to conserve working space.
- There should also be a tray preferably mounted on telescopic rails, which can be slid back and forth. The tray should facilitate transfer for tools and chemicals.
- The chamber must have an Automatic PLC controlled evacuate and purge system with pressure gauge.

Mini antechambers

- The box must have one mini ante-chamber for sample transfer.
- The ante-chamber should be at least 150 mm in diameter and 400 mm in length.
- The ante-chamber should have a tray to enable sample transfer.
- The chamber must have a manual pump and purge system: with pressure gauge, manual valve and connection to vacuum pump.
- The ante-chamber should have a door that can seal the ante-chamber for evacuation.

Feedthroughs

- The box should have at least 6 KF-40 feed throughs. These can be connected to liquid, electrical or vacuum feed throughs. The details of placement can be discussed at the time of ordering
- The system must have at least 1 electrical feed through with 15 A connector that are compatible with 220 V – 240 V supply.

Vacuum Pump

Double stage rotary vane 18 m^3/H VACUUM PUMP with oil mist filter (Pump should be reputed brand like Edwards / Pfeiffer)

System control

Glove box should be PLC controlled with Color touch panel operation of glove box parameters with features of circulation control, pressure control, regeneration control and monitoring of pressure, oxygen and moisture. Each function should be clearly displayed on touch panel. Alarms and reminders are required for maintenance and parts. Activation at user-set timings

With Upgrade facility for 24/7 remote monitoring of glove box parameters and provision for sending alerts and notifications about upcoming service schedules. Must be freely downloadable from the google play store /app store (Must provide link for the same)

Other

- There must be a lamp inside, preferably LED. There must be a switch on the outside of the body or touchscreen to turn the light on/off.
- The circulation system should make it possible to have positive pressure regulation without vacuum

pump

- A foot pedal for controlling box pressure should be provided.
- At least two height-adjustable stainless-steel shelves of at least 1000 mm in length and at least 200 mm in depth should be provided. These should be centrally located so that any chemicals or tools are accessible from glove ports.
- All electrical connections should comply with line power specifications in India. Single phase voltage range is 220-240 Vac and the three-phase voltage range is 415 - 440 Vac. The line frequency is 50 Hz.

Acceptance

- The institute reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of the contract without thereby incurring any liability of the affected bidder or bidders.
- Vendors are required to provide brochures / literature while complying the specifications.
- Vendor must be able to perform factory acceptance testing of the product and demonstrate all the features prior to the dispatch.
- Manufacturers must have supplied minimum 25 glove box of any model with purifier and sensors especially in research institutes and should have satisfactory running of the system at purchaser's site in last 5 years.(Installation report should be submitted)
- Previous installations can be used by the committee to disqualify vendors with a poor track record of service, build quality, system performance or poor availability of spares.
- Institute will expect acceptance tests, post installation. These can be recorded in the presence of representatives of the OEM. Inability to pass these tests will be a counted as a technical failure and breach of contract.
- Maintain <1 ppm of H2O and O2 for 24-hour period.
- Demonstrate automated routines for catalyst regeneration
- Demonstrate automated routines for maintaining target pressure.

- **Warranty for 5 Years**
- **The vendor should provide list (at least 15) of installation of similar system in Indian Universities/ IITS/NITs/IISER and other government research laboratories with contact details in last 3years**
- **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**
- **Quoted item should be the latest model with the availability of all the parts and required accessories for atleast 10 years.The instrument should be globally recognized one**

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.**

Item	Tender Fee (₹)		EMD (₹)
	Fee	18% GST	
Glove Box	3,900.00	702.00	25,700.00

4. **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. Under MSME category, only Manufactures for Goods and Service Providers for Services are eligible for EMD/Tender fee exemption.**
5. The bidders shall keep their rate firm for a period of **120 days**.
6. 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.
7. 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.
8. The total rate tendered should be inclusive of all taxes and other charges.
9. 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.
10. Profile of Bidder as per Annexure1 shall be provided.
11. 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.
12. The bid shall contain detailed technical specifications, Brochures and pamphlets of all 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. The installation, commissioning and the initial operation will be the responsibility of the supplier.
15. 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.
16. The payment will be made after completion of supply, installation and commissioning.

17. The bidder shall undertake to supply materials according to the standard sample and /or specifications.
18. No representation for enhancement of rates once accepted will be considered.
19. The bidder shall quote their rate in the standard BOQ provided indicating the break up details.
20. The supplier shall ensure the quality of the stores supplied.
21. The provisions of Kerala Stores Purchase Manual are applicable to this Tender and further proceedings.
22. The University reserves all rights to accept or reject any or all the tenders without assigning any reason whatsoever at its discretion.
23. 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.
24. The bidder should have the responsibility to attend the first level service if any complaint report.
25. 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.
26. 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 to Kerala GST department (18 % of tender fee)
7. Address details of Service Centres
8. 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. .....