



NATIONAL INSTITUTE OF TECHNOLOGY

ROURKELA-769008 (ODISHA)

An Institute of National Importance under Ministry of Education, GOI

NOTICE INVITING TENDER

Tender Notification No: NITR/PW/ME/2021/241

Dated: 11/02/2021

The National Institute of Technology, Rourkela invites bids from the eligible bidders for procurement and installation of "**Proton Exchange Membrane (PEM) Fuel Cell Test Station with Necessary Accessories**" at NIT Rourkela.

Last date of Submission of Bid : **10/03/2021 by 03:00 PM**

Date of opening of Techno-commercial Bid : **12/03/2021 at 03:00 PM**

For Details: https://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx

Contact: Dr. S. Murugan,
Professor, Mechanical Engineering Department;
Ph: +91-661-2462525;
Mobile: +91 9437140949
Email: murugans@nitrkl.ac.in, recmurugan@gmail.com

Bidding through: <https://eprocure.gov.in/eprocure/app>

Sd/-
REGISTRAR



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008, ODISHA**

(OPEN TENDER NOTICE NO.: NITR/PW/ME/2021/241

Dated: 11/02/2021)

(PROCUREMENT AND INSTALLTION OF "PROTON EXCHANGE MEMBRANE (PEM) FUEL CELL TEST STATION WITH NECESSARY ACCESSORIES")

Item No	Description	Quantity
1	Procurement and installtion of "Proton Exchange Membrane (PEM) Fuel Cell Test Station with Necessary Accessories"	1 Unit

1. Quantity required : **As mentioned above (All information regarding technical specification provided in Annexure II)**
2. Delivery : Within **90 days** from the date of the purchase order
3. Last date of submission of bid : **10/03/2021 at 03:00 PM**
4. Date of opening of Techn-commercial bid : **12/03/2021 at 03:00 PM**
5. The firm should not have been black listed at any time.
6. The submission of the following bids by the tenderer should be through <https://eprocure.gov.in/eprocure/app> Please follow the guidelines as per the portal.

Procurement and installtion of "Proton Exchange Membrane (PEM) Fuel Cell Test Station with Necessary Accessories"

**(Tender Notice No.: NITR/PW/ME/2021/241 Dated: 11/02/2021)
Due on 10/03/2021 at 03:00 PM**

7. **The Liquidated damage clause** will be charged for any delay in the supply of goods.
8. The validity of the tender shall be **90 days** from the date of opening of the bids.
9. Detailed advertisement, including all tender documents, is also available on our website at http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx .
10. NIT reserves the right to qualify or deny prequalification of any or all applicants without assigning any reasons.

**(REGISTRAR)
NIT, Rourkela
Fax No- 0661-2462022
Ph. No -0661-2472021**

Specifications of the Procurement and Installation of “Proton Exchange Membrane (PEM) Fuel Cell Test Station with Necessary Accessories”

S.No	Description of Goods/Service	Quantity
1.	<p>Specifications;</p> <p><u>Fuel cell:</u> Max. load current : 0-250 A Power range : 600W-1200 W Maximum load current should be able to draw at near zero cell voltage</p> <p>Gas Supply Specification: Mass flow H₂ - anode: 0 –15 SLPM Mass flow O₂ - cathode: 0 – 50 SLPM</p> <p><u>Pressure Control and Measurement:</u></p> <p>Backpressure gas controller - anode and cathode: YES Cell inlet pressure sensor range - anode and cathode: YES Gas inlets pressure sensors: YES</p> <p><u>Humidification:</u> Humidifier - micro bubbler : YES Dew Point : Upto 90 °C Gas temperature : 100°C Current range : 0 - 20 A Voltage range : 0 - 20 V Usable maximum power : 1.0 kW</p> <p><u>FC Stack Connectivity:</u></p> <p>It should comprise Thermally isolated inlet hoses, Internal tubing heaters, Thermocouples, Cell heater: Integrated PID control and Cell voltage monitoring.</p> <p><u>The test station must provide the following:</u></p> <p>Security shut down with hydrogen purging, Emergency manual shut down switch (E-Stop), Remote emergency shut down (HW interlock), and Closed exhaust system with water separator.</p> <p><u>Software:</u></p> <p>Desktop master PC: OS Windows 10, Software with graphic interface and Data Acquisition</p>	01

Installation and Training: A 2-day installation post-training should be provided by the bidder.

Other Requirements	
Demonstration of instrument performance.	The supplier should demonstrate the working of the equipment by detecting some compounds of interest at the time of installation of the equipment. The acceptance would be subject to meeting the required criterion.
Manuals	1 set of detailed operation, servicing and Programming manual should be provided in both soft form as well as Hard copy. Language should be English only.
Installation	Enclose pre-installation guide for the details on electrical power, space and other for all components and essential accessories. The satisfactory installation has to be ensured to the full specifications of the machine with all accessories at NIT Rourkela campus. Any additional equipment/accessory for the installation of the system should be quoted invariably. NIT Rourkela will provide only space and electrical connection along with necessary solvents for running the equipment. The manufacturer has to stand guarantee for the relocation of the system from the present campus of NIT Rourkela to any other place if any in future.
Training	Supplier should provide a comprehensive and free training to NIT Rourkela faculty, staff and students for at least 3 working days on operation and preventive maintenance.
Warranty	01 Year Standard Warranty (Front line service to be done at customer place & if any cards/modules are to be replaced can be taken to service center & back to bench service charges to be borne by Bidder). The Original End Manufacturer (OEM) should have Calibration and other maintenance support facility located in India.

Other Qualification Criteria:

1. Complete technical specification of the instrument and its necessary parts and accessory items required for running the instrument
2. Scanned copy of the technical brochure and website reference of the same must be included in the bid.
3. There must be a local maintenance center with the availability of the spares in India. The registered address of the local maintenance center should be provided.
4. A declaration from the Principal stating that the spares will be made available for the equipment for at least 5 years from the date of installation.
5. The average turnover of the bidder in the last 3 Financial Years should be at least Rs. 2.0 crores. Relevant documents to be provided.
6. The bidder should have proven track record in Govt. Sector at least for 7 years. POs in favor of the bidder to be provided as proof.
7. A duly signed detailed User List (at least 5) with the concerned person's valid contact details, in India where the instruments are still in the operational condition must be provided for each of the instrument.
8. Copies of at least 5 POs/installation certificates of similar or higher specifications than the quoted instrument from Govt. organizations/ labs/ institutes should be provided. The POs/installation certificate should not be older than 5 years.
9. A copy of the Authorization Certificate issued by the Principal in favour of the Indian agent along with a certified copy of the Agency Agreement between the foreign Principal and Indian agent. Both these certificates must be up-to-date.
10. In case of imported items, a letter in the official letterhead of the principal declaring the Indian agent as their authorized agency to bid. The letter must contain the official tender enquiry number as depicted in the e-portal, must be included with the technical bid. (This must not be clubbed with Authorization Certificate)
11. A duly signed separate compliance sheet of the specification (at every point) mentioned in the technical part along with the deviation (if any). This compliance sheet will not be considered as the technical specification of the instrument.
12. Profit and loss statements and balance sheets of the financial year 2018-2019 (as on year ended, i.e., 31.03.2020) must be provided along with the technical bid.
13. Income tax return (ITR) of the assessment year 2018-2019 must be provided along with the technical bid.
14. Dealership Certificate and Proprietary Nature Certificate (If applicable) must be provided along with the technical bid.
15. Price should include installation.