



राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर हमीरपुर-177005-(हि .प्र.)

NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P.)-177005

[An Institute of National Importance under Ministry of Education (शिक्षा मंत्रालय)]

### E-TENDER NOTICE

Sealed online e-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned below.

| Sr. No. | Name of works/item                                                                                                                  | Qty/ No. | Earnest Money In Rs. | Time Limit |
|---------|-------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|------------|
| 1       | <b>Supply &amp; installation of Multi Channel Electro-Chemical Workstation</b><br>(For detailed specifications please refer to SBD) | 1        | 66700                | 60 days    |

1. Availability of bid document and mode of submission:-The bid document is available online and bid should be submitted in online mode on website <http://www.eprocure.gov.in/> and <http://www.nith.ac.in/>. Bidder would be required to register in the web-site which is free of cost. For submission of bids, the bidder is required to have Digital Signature Certificate (DSC) from one of the authorized certifying authorities (CA).

2. Key dates: (1)

|   |                                                                                  |                                     |
|---|----------------------------------------------------------------------------------|-------------------------------------|
| 1 | Date of online publication                                                       | 11.08.2022 at 6.00 PM               |
| 2 | Document download start and end date                                             | 11.08.2022 to 31.08.2022 10.30 AM   |
| 3 | Bid submission start and end date                                                | 11.08.2022 to 31.08.2022 10.30 AM   |
| 4 | Physical submission of EMD, technical documents and cost of tender document etc. | On or before 05.30 PM on 31.08.2022 |
| 5 | Date of opening of technical bid                                                 | 01.09.2022 at 11.30 AM              |

- (II) Objections/representation if any against the bidders will be entertained only within three days after publication/uploading of technical bid opening summary on net and thereafter that the date of opening of financial bid of technically qualified bidders will be published /uploaded on net.

3. Tender Details:-The tender Documents shall be uploaded in 2 cover:-

Cover 1:-Shall contain scanned copies of all "Technical Documents/Eligibility information".

Cover 2:- Shall contain "BOQ/Financial Bid", where supplier will quote his offer for each item.

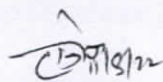
- (a) Submission of Original Documents: The bidders are required to submit (a) original demand draft towards the cost of bid document if any and (b) original bid security/Earnest Money deposit (EMD) and other technical documents in the Store & Purchase section, NIT Hamirpur-177005 (HP) as specified in the key dates of **Sr. no.2**



on tender opening dates & schedule, failing which the bids will be declared non-responsive. EMD in the form of DD/FDR must be attached with in favour of Director, NIT, Hamirpur (H.P) -177 005. The EMD should remain valid for a period of 90 days beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released after successful execution of supply order.

4. **BID OPENING DETAIL:** - The bids shall be opened as per schedule specified in the key dates of Sr. no.2. in the store & Purchase section, NIT, Hamirpur by the authorized officer. In their interest the tenderer are advised to be present along with original documents at the time of opening of tenders. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time & venue.
5. The bids shall remain valid for acceptance for a period of not less than 90 days after the deadline date for bid submission. Other details can be seen in the bidding documents. The officer inviting tender shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt notify the bidder of any bid updates. The Employer shall not be liable for any information not received by the bidder. It is the bidders responsibility to verify the website for the latest information related to the tender.
6. The copy of enlistment order & renewals, Copy of PAN issued by Income tax Department and copy of GST Certificate must accompany in the cover-1
7. The bidder preferably must have successfully supplied similar items in recent years. The bidders shall have to produce supporting documents giving date of award, date of commencement and completion from the concerned competent authority and should be included in cover-1
8. Destination: F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must include the charges for Packing, Forwarding, Freight, etc., if any.
9. Price/Rate: The price of items may be quoted in Indian rupees.
10. GST:- All the firms may invariably mention their GST/PAN numbers on tender failing which quotations may not be considered valid. Further, this Institution does not issue any C/D Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
11. The bidders/firms have to supply the complete catalogue/brochure of the products to be supplied along with the Technical bid.
12. The technical bids will be evaluated on the basis of terms & conditions of the tender and details of the product to be supplied as per condition 11 of the tender notice. The committee reserves the right to reject any technical bid on the basis of technical specifications/catalogue/brochure submitted.
13. Conditional/ telegraphic tenders shall summarily be rejected.
14. For any clarifications bidders are requested to contact FI (Purchase), NIT Hamirpur at his E-mail ID i.e. [fip@nith.ac.in](mailto:fip@nith.ac.in).
15. The tender/bid shall be kept in a sealed envelope superscribed as "Tender for (Name of work and date of opening \_\_\_\_\_)".
16. The jurisdiction of the law of court shall be at Hamirpur (HP).

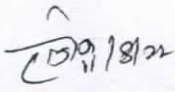
No: NIT/HMR/Chemistry/S&PS/ 2022/ 866-868

  
FI (Purchase)  
Dated: 11-08-2022

Copy forwarded to the following for information please:-

1. The HOD, Chemistry, NIT, Hamirpur

2. Dr. Raj Kaushal, Assistant Professor, DoCHE for information please.
- ✓ 3. The FI (CC), for getting the advertisement displayed in the Institute website for wider publicity under head: - **Supply and installation of Multi Channel Electro-Chemical Workstation for DoCHE, of NIT Hamirpur.**

  
FI (Purchase)  


site

or





**Subject: - Supply and installation of Multi Channel Electro-Chemical Workstation for DoCHE, of NIT Hamirpur.**

Sealed online E-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned in the tender notice.

| Sr. No. | Name of works/item                                                                                                    | Qty/ No. | Earnest Money In Rs. | Time Limit |
|---------|-----------------------------------------------------------------------------------------------------------------------|----------|----------------------|------------|
| 1       | Supply & installation of Multi Channel Electro-Chemical Workstation<br>(For detailed specifications please see below) | 1        | 66700                | 60 days    |

**Detailed Specifications of Multi Channel Electrochemical Workstation,  
MULTICHANNEL ELECTROCHEMICAL WORKSTATION**

Multichannel System for upto 11 potentiostat /galvanostat or more .System should be supplied in 1 chassis Each channel should have following specifications. Price for each should be quoted separately.

**No. of Channels required:** 03 Number

**Electrochemical Workstation Specifications:**

**Compliance voltage:**  $\pm 20$  V or better at  $\pm 400$  mA or more

**Maximum Output Current:**  $\pm 400$  mA or better at  $\pm 20$  V or more

**Output Voltage Range:**  $\pm 10$  V or more

**Current Ranges:** smallest current range:  $\pm 10$  nA to current range  $\pm 100$  mA in multiple ranges or more

**Measured current resolution:** 0.0003% at entire current range

**Measured potential resolution:**  $3\mu$ V or better

**Potentiostat Rise/fall Time:** 500 ns or better

**Interface:** USB interface for connection with PC

**Input impedance of electrometer:**  $10^{11}$   $\Omega$  or better

**Input bias current of electrometer:** 20pA or better

The system should be upgradeable with accessories 10 A current booster, Electrochemical Quartz Crystal Microbalance, UV Visible Spectrophotometer etc

### Hardware for EIS measurements: Qty 1

Hardware and software for EIS measurements in potentiostatic and galvanostatic control, over frequency range of 10  $\mu$ Hz to 1 MHz or better at a given current  $\pm$  400 mA or more.

It should be possible to perform EIS measurements over entire frequency range from 10  $\mu$ Hz to 1 MHz at a given current  $\pm$  400 mA or better.

Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky, Data analysis: Fit and Simulation, Find circle, Element subtraction

### Hardware for BIPOTENTIOSTATIC measurements: Qty 1 no .

Module for conversion of the system into a two channel potentiostat with two working electrodes sharing the same AE & RE.

### Electrochemistry Cell:

20 mL to 80 mL glass cell ,base plate and stand ,gas purging tube 4 no each , 300 mL cell 4 no ,disc working electrodes of 3 mm of GC 4 no ,Au & Pt 4 no. each, Pt wire Counter electrode 4 no, Ag/AgCl reference electrode double junction type for use in aqueous (3No.) and Non-Aqueous media (3 no) ,Polishing kit and gas purging accessories 3 no .

### Electrochemical Software:

The system software must have capability for hybrid measurements such as Spectro-electrochemistry, E-SPR, IMPSIMVS, EQCM, etc. It should have TTL triggering, ADC, DAC based communication ports. The Software must be able to be downloaded to unlimited computers & fully windows based. Software should be capable of supporting a wide variety of electrochemical techniques for advanced sensor research (50+ modern electroanalytical techniques).

- Cyclic Voltammetry, Sampled DC Voltammetry. Tafel Plots, Differential Pulse Voltammetry, Square Wave Voltammetry. Electrochemical methods like Chrono-Amperometry, Chrono-Coulometry & Chrono-Potentiometry.
- **Real time Plotting:** Powerful graphic engine with useful features
- **Corrosion:** Linear polarization with Tafel Slope Analysis, Polarization resistance evaluation, Electrochemical Noise analysis, critical pitting technique, electrochemical frequency modulation, hydrogen permeation analysis, etc.
- **Battery & Supercapacitors Analysis:** Rectangular CV analysis at varying scan rates for pseudocapacitor analysis, complete charge and discharge with built in integration and 'linkable' cut-offs, Galvanostatic charge discharge with cycle number vs specific capacitance plot, Voltage measurement on counter electrode, etc.
- **Electro-catalysis:** ORR analysis using RDE/RRDE at varying rotation speeds and built-in Koutecky-Levich plot generation, HER and OER analysis for water splitting, Carbon dioxide reduction analysis, default technique for spectro-electrochemistry based LSV, CV and Chrono evaluation.
- **Sensors:** Advance Sensor Research/ Development and Conducting polymers applications

The software upgradation should be free of cost



**Rotating Ring Disc Electrode for Bipotentiostatic Hydrodynamic Measurements:Qty 1 no**

**Specifications:** Speed control Manual and software, Motor speed range 150 - 8,000 RPM,

**Manual speed setting:** 150 - 8,000 RPM RPM in 1 RPM steps,

**Acceleration/deceleration** 3,800 RPM/s,

**Maximum current** 400 mA. The RRDE set up should be used as RDE also with disc electrodes quoted above

**RRDE Tips:** GC Disc and Pt Ring Qty 2no

**Computer & Printer:**

Compatible branded PC with i7 or higher configuration (01 No.), 27 inch TFT branded color monitor, 8GB RAM, 1TB HDD, screen, 52XCDD read and write drive, optical mouse, B&W Printer, 2 KVA Online UPS with one hour back up should be quoted.

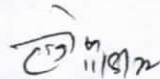
**Warranty :** 3 years

**TERMS AND CONDITIONS:-**

1. **Validity:** Minimum validity of the quotation will be 03 months from the date of opening of the quotation/tenders.
2. **Time Limit:** - The firm/supplier has to supply and install the equipments within 60 days from the date of the award letter.
3. **Guarantee/warranty:** - The supplier has to provide equipment guarantee/warranty supplied for next 03 years from the date of successful installation of the equipment supplied. (Certificate of the same to be given by the supplier)
4. **Demonstration & Training:-** The supplier will have to demonstrate and impart training to concerned users at NIT, Hamirpur after successful supply & installation. (Certificate of the same to be given by the concerned user/indenter).
5. **EMD: EMD in the form of DD/FDR /Bank Guarantee must be attached in favour of Director, NIT, Hamirpur (H.P) -177 005.** The EMD should be remained valid for a period of 90 day beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released after expiry of warranty period. EMD exemption is permissible as per Govt. rules.
6. **Make in India preference:-** NIT Hamirpur shall compare all substantially responsive bids to determine the lowest evaluated bid. The Institute is following and abide with the revised Public Procurement (Preference to Make in India), Order No. P- 45021/2/2017 – PP (BE-II) dated 16.09.20 issued by DPIIT, Ministry of Commerce and Industry, Govt. of India & subsequent instructions of Ministry. Accordingly, preference will be given the make in India products while evaluating the bids. However, it is sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India along with respective documentary evidence in the technical bid itself.
7. **Technical Evaluation:-** Technical evaluation of the participating firms will be done strictly on the basis of catalogues/brochures/literature/technical details of the product to be supplied along with relevant experience & fully complying all the terms & conditions of the SBD & tender notice. **It is mandatorily to physically submit the technical literature/catalogue of the product to be supplied along with make & model no. failing which the technical bid**

of the participating bidder will be straightforward rejected. NIT Hamirpur also reserves the right to seek clarification from any of the participating firm during technical evaluation. The participating bidder has to submit undertaking that they fully complies to our above-mentioned technical specifications.

8. **Destination:** F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must be quoted inclusive of all taxes and charges.
9. **Penalty:** In case the firm/vendor fails to supply the equipments within the stipulated period penalty without assigning any reasons @ 1/2% (half percent) of the total value of the item covered in order as penalty per day subject to a maximum of 5% (five percent) will be imposed unless extension is obtained in writing from the office on valid ground before expiry of delivery period
10. **Price/Rate:** The price of equipment/items may be quoted as per BOQ clearly mentioning the Basic rate & GST in the specific columns of BOQ in Indian rupees. **Tender will be awarded to the participating bidder who will be lowest in terms of total of all items**
11. **GST:** - All the firms may invariably mention their GST/PAN numbers on quotation/tender failing which quotations may not be considered valid. Further, this Institution does not issue any C/D Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
12. **NIT/NIQ Opening:** Representative of the firm may be present at the time of opening of the Quotations, if it wishes.
13. **Payment:** 100% payment shall be made immediately after receipt of material in good condition and successful installation of the same.(Certificate of the same to be given by the indenter/inspection committee NIT, Hamirpur)
14. **Right of Acceptance/Rejection:** Right of acceptance and rejection of any tender/quotation in part or full without assigning any reason are reserved with the institution authorities. The number of items to be purchased could be increased or decreased depending on the requirement of end user.
15. In case of any dispute the jurisdiction of Hamirpur (HP) Courts shall apply.

  
FI (Purchase)