

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 Pendant Drop Tensiometer</b> (For detailed specifications please refer to SBD)	1	48740	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	30.07.2024 at 6.00 PM
2	Document download start and end date	30.07.2024 to 20.08.2024 10.30 AM
3	Bid submission start and end date	30.07.2024 to 20.08.2024 10.30 AM
4	Physical submission of EMD, technical documents and cost of tender document etc.	On or before 05.30 PM on 20.08.2024
5	Date of opening of technical bid	21.08.2024 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".

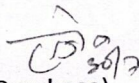
Cover 2:- Shall contain "BOQ/Financial Bid", where supplier will quote his offer for each item.

- (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.
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).

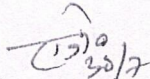
No: NIT/HMR/DoCHE/S&PS/ 2024 /2869-71

  
FI (Purchase)  
Dated: - 30-07-2024

Copy forwarded to the following for information please:-

1. The HOD, DoCHE, NIT, Hamirpur

2. Dr. Rahul Saha, Assistant Professor (Gr-1), 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 of Pendant Drop Tensiometer for DoCHE of NIT Hamirpur.**

  
FI (Purchase)



3	<p>The instrument should be capable and conform with the following specifications and features:</p> <ul style="list-style-type: none"> <li>• Measuring range of the contact angle: 0° - 180°</li> <li>• Measuring range for surface tension and interfacial tensions: 0.01 - 2000 mN/m</li> <li>• Resolution: ± 0.01mN/m</li> <li>• Minimum 6.5-fold zoom lens with integrated manual focus</li> <li>• LED-lighting with manual and software-controlled intensity including automatic temperature drift compensation</li> <li>• Size of the sample stage: 100 x 100 mm<sup>2</sup> <ul style="list-style-type: none"> <li>- maximum sample size (LxWxH): 220 x 2 x 70 mm<sup>3</sup></li> <li>- max. sample weight: 3.0 kg; 15.0 kg locked</li> <li>- traversing range of sample table in x-y-z direction: 110 x 90 x 42 mm<sup>3</sup></li> <li>- USB 3 camera; max resolution 1440 x 1080 pixel with 227 frames/s; max. framerate 2184 frames/s</li> <li>- field of view 1.11 x 0.83 ... 7.14 x 5.35 mm<sup>2</sup></li> </ul> </li> </ul>
4	<p>Dispensing System: Automatic high precision direct dosing system without any tubing through both manual and software control must be offered.</p> <ol style="list-style-type: none"> <li>1. System must include software for measurement of contact angles and/or surface tension using a <u>tubing-free</u> direct-dosing system with electronic syringe unit (included).</li> <li>2. Easily switchable syringes and use of disposable syringes with the electronic syringe unit must be offered.</li> <li>3. System must be designed to be fully-expandable to all major accessory options to accommodate future experimental needs like Nano litre dosing system, picolitre dosing system, tilting base unit, electrical needle heating device, liquid temperature control unit, peltier temperature control unit, top view video system, electro wetting platform etc. Two disposable syringes (1000 µl) of set</li> <li>4. Electronic syringe unit should allow piston travel speeds of 0.2 µm/s up to 10 mm/s for highest precision, variable dosing rate.</li> <li>5. Electronic syringe unit must be capable of delivering droplets to 10 nanoliters with optionally-supplied nanoliter dosing accessory.</li> </ol>
5	<p>Following Accessories should be offered:</p> <ul style="list-style-type: none"> <li>• High precision electronic and software controlled direct dosing system</li> <li>• System must be of modular design to work under various environmental conditions.</li> </ul> <p>Electronic syringe unit for <b>Interfacial rheology – Oscillation</b> For use with the direct dosing systems, expandable to a nanodrop dosing system. Software controlled generation of sinusoidal oscillating and relaxing drops, - Dynamic surface/interfacial tension measuring range: 0.01...2000 mN/m - Frequency range of drop oscillation: 0...2 Hz (viscosity dependent)</p>
6	<p>Windows based software should be offered for following job:</p> <ol style="list-style-type: none"> <li>a. Main software to record / store image sequences of the controlled analysis at fast processes controlling of the electronic syringe unit as well as the other electronic accessories.</li> <li>b. Software module for video based measurement and presentation of the static and dynamic contact angle on plane, convex, and concave surfaces. Software should be capable for automatic measurement of the contact angle hysteresis and to record/store of image sequences with statistics and measurement error analysis. Liquids and solids database must be incorporated in the Software.</li> </ol>

**Following upgrade options must be available in future:**

1. System can be equipped with a tubing-free multiple direct-dosing system with up to four (4) electronic syringe units for highest droplet delivery precision, ease of operation, and automation.
2. System is capable to accept an optionally available special heating chamber and syringe

- heating device up to 130°C , must be upgradeable in future to electrical needle heating device, temperature range: ambient temperature to 400 °C
3. System is capable to accept an optionally available double pressure dosing system for simultaneous dosing and measurement of multiple droplets.
  4. System has the possibility to mount three cameras at the same time for side view, 45° observation view and 90° top view of droplets.
  5. Special hydrophobic coating kit is available to prevent wetting of the outer side of the dosing needles.
  6. Proprietary optional software is available to calculate the surface free energy of a substrate according to ten different methods.
  7. Electronic tilting base unit which allows motor-driven and software-controlled inclination of the full instrument including camera and sample stage. Tilting base unit with -5 to +95° tilting angle to accurately measure roll-off angles at tilting speeds of 0.004°/s to 4°/s over the industry's widest range.
  8. Camera upgradeable to USB 3 camera, 2/3" sensor max. resolution 2048 x 1088 pixel with 170 frames/s, max. frame rate 4276 frames/s.
  9. Future upgradation for temperature and environmental control chambers (-30 °C to 700 °C)
  10. Future upgradation for electrical needle heating device (room temperature to 700 °C)
  11. Future upgradation with the pressure based double dosing system, multiple drops must be dosed simultaneously and analysed for a surface energy determination in one-click.
  12. Future upgradation with surface free energy and tilting base unit to measure advancing and receding contact angle and roll off angle.

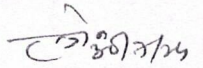
#### Other conditions

13. Technical deviation statement must be provided by the supplier.
14. The vendor should provide the technical specification presentation of the instrument
15. The technical evaluation will be done after the presentation delivered by the vendor.
16. The instrument should measure contact angle, surface tension and interfacial rheology in a single unit/system with system software, and not by two or three different units/systems.

#### 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 02 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 120 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 only after submission of 3 % **Performance bank Guarantee** which should be valid till 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)