



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA**

Advertised Tender Enquiry

Department: Chemical Engineering

Tender Notification No: NITR/PW/CH/2020/222

Date: 29/12/2020

To

Important Dates

Bidding
Through
e-Procurement module
of CPP Portal

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

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of bid	25/02/2021	11:00 AM
Date of opening of techno-commercial bid	26/02/2021	11:00 AM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any clarification, you may contact to:

Attention:
Prof. S. Paria
Department of Chemical Engineering
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA, India
Phone: (0661) – 2462262 and 9437684864
E-mail: sparia@nitrkl.ac.in

Yours sincerely,

Prof. S. Paria

Encl:

- (1) Schedule of requirement, specifications, dates etc.**
- (2) Bid document containing detail terms and conditions.**

1. Schedule of requirements

Item No	DESCRIPTION	Quantity
1	A table top research grade SEM (scanning electron microscope) for imaging and microscopic analysis of mostly biological, inorganic nanomaterials with Energy Dispersive X-Ray Analysis (EDX) (As per detailed Annexure-II)	1 Unit

2. Specifications and allied Technical Details

As per Annexure - II
* Attach User list along with the bid

3. Format of Quotation (tick appropriate box)

It is a two-part bid with separate covers, **Cover-I:** Bid security declaration, Tender cost, techno-commercial bid and **Cover-II:** Price bid, (BOQ).

4. The bid should be submitted through <https://eprocure.gov.in/eprocure/app>

5. Quotations should be valid for a period of **120 days** from the date of opening of techno-commercial bid.

6. Some important dates:

i.	Pre-bid Conference	Date: NA	Time: NA
ii.	Last date for submission of Bid:	Date: 25/02/2021	Time: 11:00 AM
iii.	Date of opening of Techno-commercial bid:	Date: 26/02/2021	Time: 11:00 AM

7. **Pre-bid Conference:** Not Applicable.

8. **Warranty** 3 years comprehensive onsite warranty must be provided.

9. **GST:** GST should be charge according to applicable rates.

10. **Tender Cost:** Tender cost (Non- refundable) in the shape of Demand Draft for **INR 500/- (Rupees Five Hundred only)** in favor of "**Director, NIT Rourkela**" Payable at **Rourkela** from any Scheduled Commercial Bank except Co-operative and Gramin bank. Tender Cost should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela-769008, Odisha; on or before 26/02/2021 at 11:00 AM**, failing which the bid will be summarily rejected.

11. **Bid Security:** It is mandatory to submit the "**Bid Security Declaration**" form as mentioned in **Annexure I**, failing which the bid will be summarily rejected.

12. **Performance Security: 3 % of the Contract Value** should be deposited to the Institute within 15 days from the date of issue of Purchase Order, in shape of Demand Draft (DD)/Bank Guarantee in favor of "**Director, NIT Rourkela**" and payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. And Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the suppliers including warranty obligation.

13. Please go through the enclosed "bid document" carefully for other bidding instructions.

14. Please send your quotations through <https://eprocure.gov.in/eprocure/app>

- 15. Techno-commercial Bid Evaluation Criteria:** The evaluation of the Techno-commercial Bid will be as per the detailed technical specifications given in Annexure-II. If required, the bidder(s) may be asked to provide additional clarification regarding the technical aspects.

Other Qualification criteria:

- i. Scanned copies of the technical brochure of the above equipment and accessories as per the Annexure-II must be included in the technical bid. Pointwise technical compliance along with any deviation of the mentioned specifications (Annexure-II) must be indicated along with technical documents.
- ii. The bidder must also assure in writing that (a) after sales regular maintenance service as well as (b) emergency breakdown service will be attended at the regular time interval for (a) and within 72 hours for (b).
- iii. Web references must be provided along with the technical bid.
- iv. Customized equipment and accessories (as per Annexure-II) will not be accepted. The standard equipment and accessories (as per Annexure-II) will only be accepted.
- v. Make and model no. should be mentioned in the technical bid.
- vi. Scan copies of the ten purchase orders of the quoted equipment model and accessories within last three years must be enclosed along with the technical bid.
- vii. The firm must provide the list of well reputed national and international organizations/Universities, where the quoted system is installed.
- viii. The firm must provide at least **05** performance certificates (in English language) of the particular model of the system mentioned in the quotation.
- ix. The bidder must have valid authorization from the OEM specific to this tender. Documentary proof regarding this must be attached

16. Financial Bid Evaluation Criteria :

Financial Bid will be evaluated based on the basic of table top research grade SEM (scanning electron microscope) for imaging and microscopic analysis of mostly biological, inorganic nanomaterials with Energy Dispersive X-Ray Analysis (EDX) and 3 year comprehensive warranty on DDP basis. Optional items as mentioned in BOQ (**Sl.No 1.02 and 1.03**) will be procured subject to the availability of the fund from the same L1 bidder in the basic unit.

- 16.** For technical details, you may contact

<p>Prof. S. Paria Professor Department of Chemical Engineering NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA, India Phone: (0661) – 2462262 and 9437684864 E-mail: sparia@nitrkl.ac.in</p>
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NB: *Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)*



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769 008, Odisha, from the intending bidders for supply of the goods/stores/ equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates following the list provided in **BOQ** in clear terms without any ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The bids should be uploaded in <https://eprocure.gov.in/eprocure/app> Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and will be considered non-responsive.
- 1.9 The bids will be submitted in two parts, viz., techno-commercial bid and financial bid.
- 1.10 The bidder has to put his full signature in full in all the pages of the scanned part of the bidding document. No over-writing in those pages is acceptable.
- 1.11 If any bidder does not fulfil technical specification, his/her eligibility will be cancelled even if his/her price got L1 status.
- 1.12 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD & Tender Cost provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
 - i) Khadi and Village Industries Commission (KVIC)
 - ii) National Small Industries Corporation (NSIC)
 - iii) Any other body specified by Ministry of MSME/GOI

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of packing, forwarding, freight, Insurance and all other incidental charges including taxes. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight, entry tax etc., when quotes separately are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

It may be noted that the Institute is availing custom duty exemption in terms of Notification No. 51/96 – Customs dt. 23.07.1996, Notification No. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG- CDE (227)/2016, dated: 13.11.2018]

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **90 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the bid.
- 2.4 The bid should remain valid for a period of **120 days** from the date of opening. In case the bid offer has a different validity period, the same should be clearly mentioned in the bid.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details as mentioned in **Annexure-II**.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where ever applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the discretion of Director, NIT Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date GST and Income Tax Clearance Certificate along with the bid.
- 2.12 Purchase order / Work order shall be placed on the bidding firm(s). In case of deviation to this, if any, the bidding firm should produce any such sufficient documents/credentials i.e, Agreements, MOUs, Arrangements etc. with the third party/ OEM to satisfy the buyer. A consent letter from the third party/ OEM to that effect must be enclosed along with the bidding documents.
- 2.13 70% payment will be paid through LC against shipping documents, balance 20% payment will be through wire transfer on receipt of the consignment in good condition in the Department of Chemical Engineering, NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA. Remaining 10% payment will be released through wire transfer within 30 days after commissioning of the equipment, installation, demonstration and on site training.
- 2.14 State Bank of India is the sole Banking partner for NIT Rourkela for operation of LC (Letter of Credit).
- 2.15 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, Rourkela shall be final and binding.
- 2.16 The bid document/resultant contract will be interpreted under Indian Laws.

BID SECURITY DECLARATION

Tender Ref. No.: _____ Dated _____

Tender ID: _____

To

**The Registrar,
National Institute of Technology, Rourkela
Sundargarh, Odisha-769008**

The undersigned, declare that I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration. I/We accept that I/We may be disqualified/ suspended from bidding for any tender /contract in your Institute (NIT Rourkela) for a period of **Five Years** from the date of notification of present tender, if I am /We are in a breach of any obligation under the bid conditions as under, if I/We

- a) Withdraw/modify/amend, impair or derogate the tender/bids, during the period of bid validity specified in the form of Bid; or
- b) Having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
 - (i) Fail or refuse to execute the contract, if required, or
 - (ii) Fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration) Duly authorized to sign the bid for and on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing) Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

A table top research grade SEM (scanning electron microscope) for imaging and microscopic analysis of mostly biological, inorganic nanomaterials with Energy Dispersive X-Ray Analysis (EDX) of following specifications.

MAIN INSTRUMENT	
Resolution in SE (Secondary electron mode)	4 nm or better at 20 kV (High Vacuum mode) 15 nm or better at 1 kV (High Vacuum Mode)
Resolution in BSE (Back scattered electron mode)	5.0 nm or better at 20 kV (Low Vacuum Mode)
Detector	SE, BSE and Low Vacuum SE imaging detector
Magnification	10X or lower to 3,00,000X or higher
Low Vacuum Pressure Range	10 Pa to 100 Pa or better
Motorized Stage	At least 3 Axis motorized stage with X = 50 mm or more, Y = 40 mm or more, Z = 15 mm or more, R = 360 ⁰ , Tilt = - 15 ⁰ or lower to 90 ⁰
Maximum sample Size	80 mm diameter or better and 40 mm height or better with Multiple Specimen Loading Facility
Filament	Tungsten Pre Centered Cartridge Filament or some other better material. Additional 40 nos. tungsten filament should be supplied along with the system.
Accelerating Voltage	Continuously variable, Minimum Operating 500 Volts or lower to Maximum Operating Voltage 20 kV or higher
Astigmatism correction	Electromagnetic 8-pole X-Y type scanning coil
Auto image adjustment	Auto brightness & contrast control, Auto focus control, Auto stigmatism /focus, \Auto filament saturation, Auto beam alignment, Beam alignment (Beam current alignment) , Automatic Beam brightness
Advance software option	Raster rotation, Dynamic focus, Image enhancement function Data display (Image number, accelerating voltage, magnification, Micron marker, Micron value, WD, date, time, vacuum, detector, data display bar setting; transparent), Data input (two points distance measurement, angle measurement, letters) Pre-setting magnification Stage navigation function (SEMMAP)
Image saving	Image saving size (640 × 480 pixel, 1,280 × 960 pixel, 2,560 × 1,920 pixel) or better
Image file format	BMP, TIFF, JPEG
PC Requirement	Compatible Desktop PC (Branded) must be provided with the instrument. Monitor: 21 inches TFT, 16 GB DDR 4 RAM or better, 500 GB SSD storage, 1 TB Hard Disk, SATA (7200 rpm), Intel Core i7 processor (9th Generation), 1 GB dedicated graphics.
Camera Navigation	System with CCD based camera with navigation function
Vacuum System	Turbo Molecular Pump, Rotary Pump
Automatic Image Adjustment	Automatic brightness Control, Focus, Contrast, Beam Adjustment
EDS detector (Optional)	Suitable 30 mm ² detector with software for Line scan, point scan, area mapping, B to U elemental detection. The resolution of EDS 129 eV, Si-Nitride window with 30 mm ² EDS Window Size. If the optional item is not possible to purchase along with the main system, the quoted price should be valid for three years from the opening date of the price bid for future purchase.

Automatic Sputter Coater Unit	<ul style="list-style-type: none"> i. The Ion Sputtering Unit to coat the SEM samples with metals such as Pt (platinum) or Au (gold) of a few nm ($\sim < 5$ nm) thickness to several tens of nm to make the specimen conductive . ii. Maximum Sample size is $\sim \phi$ 150 mm and height is \sim 50 mm for the sputtering unit. The Sputtering Unit should have the variable height adjustment facility for better and accurate coating. iii. The system should be with the Au target. iv. The coating unit should be equipped preferably with magnetron type electrode to reduce the chance of Specimen damage and to minimize the average coating particle diameter for less interference on the object. v. Preferably LCD touch type operational panel to adjust the Sputtering Time and Sputtering Current. vi. Minimum five processing conditions can be stored in memory with different parameter for easy use. vii. The system should have the facility to keep the coating chamber under vacuum even when it is stopped, to prevent oxidation/reduction of sensitive samples.
Accessories (Optional)	Anti-vibration platform/table if required
Safety features	Protection function for the power failure, electric leakage and vacuuming operation are equipped.
UPS	Suitable capacity online UPS power supply must be provided with 1 h battery back-up or better with built in Isolation transformer using PWM IGBT based technology. Maintenance free dry battery from reputed brands (Exide, Amron etc.) with a battery rack for the complete SEM setup including PC, EDS, SEM unit, vacuum pump. UPS warranty minimum one year.
Warranty	At least 3 years comprehensive warranty.
Other conditions	<p>Vendor should be an authorized sales and service provider of the same OEM for at least three years or more in India with a proven track record, if the vendor is not an OEM, authorization certificate from the OEM should be provided. Standard quality certifications such as ISO 9001 etc. of OEM.</p> <p>At least five installations/supply of similar or higher model of scanning electron microscope in India by the vendor (if not an OEM) in past five years. Installation certificate and PO must be given. Number of years of service experience of electron microscopes by the vendor should be provided.</p> <p>The OEM should have supply and installations of Ten scanning electron microscopes during last Five years in Indian reputed Govt. and private organizations. A list must be provided.</p> <p>The vendor must provide a compliance sheet with the technical specification and supporting documents. Software should be free upgradable for at least 10 years, spare parts should be available for 10 years.</p>
Onsite-training and Installation	Basic Training for complete system free of cost post-installation and 6 months later based on the problem arises during operation. Installation by the vendor free of cost.

GENERAL CLAUSES TO BE FOLLOWED BY THE BIDDER

1. Bidders are requested to carefully go through the bid document, including tender specifications. It will be the responsibility of the bidders to ensure that all required documents, data, information, undertaking, certificates etc. are provided as per the bid document. Bids which fail to provide the required documents, data and information, as mentioned in the bid document, may be declared non-responsive and rejected.
2. All goods and materials should be new, unused, and of the most recent or current models, and should incorporate all recent improvements in design and materials unless provided for otherwise in the specifications below. Bidders may offer higher/better specifications but not the lower ones.
3. The bidder should provide the access to all genuine, original and licensed Software along with their update releases during the warranty period and the validity period of contract.
4. The bid must specify the pre-requirements (such as electrical power requirements, flooring etc.) for installation.
5. All bids must be accompanied by bid security Declaration as specified in **Annexure-I** & Tender Cost (Non-refundable).
6. In the event of the date specified for bid receipt and opening being declared as a closed holiday for purchaser's office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.

Amendment of Bidding Documents:

7. At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, Modify the bidding documents by amendment.
8. All prospective bidders who have received the bidding documents will be notified of the Amendment in writing or by cable or by fax or through uploading in the website (URL: <https://www.nitrkl.ac.in>), and will be binding on them.
9. In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.
10. It is to be noted that in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has to provide documentary evidence that the Bidder has been duly authorized (as per authorization form in Section XII) by the goods' Manufacturer or producer to supply the goods in India.
11. The bid should include item wise detailed description of the technical specification of all the components of the table top research grade SEM (scanning electron microscope) for imaging and microscopic analysis of mostly biological, inorganic nanomaterials with Energy Dispersive X-Ray Analysis (EDX) unit.
