



**Central Purchase unit**  
**National Institute of Technology Srinagar (J&K) -190006**

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**No. NITS/CPU/ 2018/ CRFC/3760-65 Dated.:- 28.02 .2018**

**"Tender Notice for Invitation of bids for the supply of Field Emission Scanning Electron Microscope with accessories for Central Research facility Centre, with a provision of pre-bid conference"**

**-0-0-0-**

1. Sealed Bids are invited for the lab equipment having detailed Specifications as given in Annexure -A. in two bid format on the terms & conditions given from para-2.
2. **Envelope- A (Techno-commercial Bid) Containing the following documents:-**
  - (a) Original equipment manufacturer proof.
  - (b) Proof of being Distributor/Marketing agent/ Authorized dealer in the shape of copy of agreement and registration under law in force.
  - (c) PAN card of the firm.
  - (d) Tax registration
  - (e) Proof of annual turnover of the firm for last three years which shall not be less than Rs.8.00 Crores to be proved by way of copy of audited accounts and income tax returns of 3 years.
  - (f) Proof of availability of after sale support/service.
  - (g) Bid security for Rs.8.00 lac in the form of CDR/TDR in favour of Officer In-charge, Central Purchase Unit NIT Srinagar (J&K) and tender document fee Rs.1,500/- in the form of DD, in favour of Director, NIT Srinagar. Tender without CDR/document fee shall be rejected.
  - (h) Proof of legal status.
3. **Envelope-B (Price Bid), Containing the following:-**
  - (a) Bid prices must be quoted both in words & figures. The rates quoted should be covered with transparent tape.
  - (b) The rate quoted should be FOR NIT Srinagar (J&K).
  - (c) Bid price should be without over writing. However minor over writing should be clearly signed by the bidder. In case of any discrepancy between price quoted in figures and words, the price quoted in words will prevail. Bid price should be firm for the bid validity period.
  - (d) **All duties, taxes and levies ( GST or other charges) payable, must be quoted separately.**
  - (e) **As per SRO 129 of Government of Jammu & Kashmir, the institute is Exempted from state entry tax. The Institute will provide Entry tax exemption certificate to successful bidder with supply order. The Institute is also exempted from Custom/Excise duty.**
  - (f) The bidder shall fill in Bid form in the format given in Annexure-B, Technical specification Schedule as per Annexure-C and Price bid schedule in the format enclosed in Annexure-D
4. **Validity of Bids**

Bids shall remain valid at least for 120 days from the date of opening of the bids.
5. **Evaluation of Bids.**
  - (a) The purchaser shall evaluate and compare the bids which are found Responsive. i.e
    - (i) Properly signed.
    - (ii) Conform to terms and conditions and technical specifications.
    - (iii) Accompanied with Bid security and all other documents.
  - (b) Bids shall be evaluated separately for each item.

**6. Award of contract**

- (a) Contract shall be awarded to the bidder whose bid is commercially, technically responsive and offered at lowest evaluated price.
- (b) Successful bidder shall be notified about the award of the contract through a supply order where in terms and conditions of supply shall be incorporated.

**7. Payment.**

Payment to foreign manufacturer can be made through LC as per approved terms and conditions of the supply order. However, 90% of LC will be released only after receiving the equipment in good condition at NIT, Sgr. and as per prescribed specifications along with all the necessary documents. Indian agent has to take full responsibility of its installation, commissioning and trainings. 10% of payment will be released after successful installation, commissioning and trainings. For indigenous equipment 90% payment shall be made against delivery of equipment at NIT Srinagar in good condition and found as per prescribed specifications and 10% after successful installation/ commissioning and trainings of the equipment.

**8. Warranty and after sale service:**

- (a) All items shall carry comprehensive standard warranty of two years from the date of commissioning and service support after expiry of warranty.

**9. Performance security.**

- (a) Performance security shall be retained for the amount as mentioned in the award of contract letter/supply order. However it shall not exceed 10% of the contract value.

**10. Settlement of disputes.**

Settlement of disputes if any shall be subject to the jurisdiction of Srinagar Courts only.

**11. Liquidated Damages.**

If the bidder after accepting the purchase order of goods/equipments or services, fails to deliver any or all of the goods/equipments or to perform the services within the specified period, a penalty of 0.50% (half percent) of the price value of the item per week or part thereof shall be imposed. The maximum penalty shall be limited to 10% of the cost. Once maximum is reached NIT Srinagar shall proceed on its own to consider the termination of the supply order, on the risk & responsibility of the defaulting bidder

**12. Submission of Bids.**

- (a) ***The last date for submission of bids is 28.03.2018 upto 16.00 hours.***

***However before closing of Bid, a Pre Bid Conference will be held on 7th March 2018 at Our Institute At 10.00 A.M in the office of the undersigned.***

***Interested bidders should register themselves for this with Prof. M.F Wani, Chairman CRFC whose email and phone is given on the website.***

- (b) Bids should be properly sealed.
- (c) The two envelopes A & B should be separately sealed and superscripted as Techno-Commercial Bid & Price Bid, due date of submission, Name of equipment. These two sealed envelopes should be sealed in a bigger Envelope with the address of the Tender receiving Officer & Tender No.
- (d) Bids should be addressed to Officer In-charge, Central Purchase Unit NIT Srinagar (J&K)-190006.
- (e) Bids not from Srinagar shall be dispatched sufficiently well in advance so as to reach the destination as per scheduled time & date. NIT Srinagar shall not be responsible for any delay by posts Deptt. or Courier agency.

**13. Bid opening**

(a) The Technical Bid (Envelope- A) will be opened first and Price Bid (Envelope-B) of the qualified bidders will be opened subsequently. Interested bidders can attend the Bid opening.

**14. Custom clearance will be responsibility of the supplier, however, Institute. will pay custom on Line through on line portal (Indian Customs EDI Gateway)**

**15. Notwithstanding above, the purchaser reserves the right to reject any or all the bids received in response to this N.I.T. or withdraw it without assigning any reasons thereof.**

Officer In-charge  
Central Purchase unit, NIT Srinagar

N.B.

1. Before preparing your valuable bid kindly go through the document fully and take care of all the requirements.
2. Bidders from outside Srinagar may please send their Bids well in advance so that these are received in time.

**Annexure-A**  
**Details of Equipment:-**

S.No	Description of items	Specifications	Qty	Delivery Period
1	<b>Field Emission Scanning Electron Microscope with Accessories</b>	<ul style="list-style-type: none"> <li>•<b>Resolution:</b> 1nm or below at 1 kV and .5 nm or below @ 15 kV. (Note: there should be at least 1 standard sample for calibration)</li> <li>•<b>Magnification:</b> Lowest X 15 or less. Highest X 10,00,000 or more</li> <li>•<b>Vacuum System:</b> Oil free vacuum system having Ion Pump, Turbo Pump &amp; Oil free rotary pump. R.P to achieve ultimate vacuum of 10 mbar or better. All necessary gauges and valves must be included. Pump down time should be less than 5 minutes.</li> <li>•<b>Accelerating voltage:</b> Continuously adjustable from 0.10 to 30 KV or more.</li> <li>•<b>Electron Gun:</b> Schottky Field Emission Gun capable of providing high brightness/high current for noise free imaging. (1 + 4 Nos.) Number of Emitters to be purchased, depending upon their warranty period.</li> <li>•<b>Chamber:</b> Large chamber having one dimension at least 325mm with height not less than 270mm is essential. with at least 8-10 accessory port for installing detectors and other accessories. The chamber should accommodate 6&amp;8 inches wafer for inspection.</li> <li>•<b>Specimen Stage:</b> 5 axis motorized stage with motorized stage movements equivalent to or better  X= 0 to 100 mm or more  Y= 0 to 80 mm or more  Z= 0 to 50 mm or more  Tilt = -10to +90°  R = 360°  Specimen size= up to 200mm or more. Max. height=100mm  Manual Joystick operation is also needed.</li> <li>•<b>Electron Optics:</b> Beam Deceleration/Gentle beam/Beam Booster/ technology or equivalent for high resolution imaging at low kV, Magnetic/Electrostatic objective lens assembly etc. for high resolution imaging of magnetic materials, A stable electron probe in a short time after a specimen exchange.</li> <li>•<b>Probe Current:</b> Minimum 100nA or less</li> <li>•<b>Detectors:</b>(a) Everhart-Thronley (ET) Chamber mounted with secondary electron (SE) detector.</li> </ul>	1 No.	60 days After date of issue of supply order.

(b) 'In-Lens' /In column SE detector (for high resolution imaging in High Vacuum with automatic brightness & contrast adjustment).

(c ) Parallel in-column detection of secondary electrons.

(d) Back scattered electron (BSE) detector. Suitable for non-conductive sample analysis without coating and at Low Vacuum.

•**User Interface:** Keyboard, Mouse, Control Panel with multifunction for the control and adjustment of frequently used SEM parameters, Manual Joystick control for stage axis.

•**EDS Detector:** (a) Ultra Dry Silicon Drift Detector (SDD) with thermoelectric coolers, vacuum sealed for better light element analysis in quantitative and qualitative analysis.

(b) Energy resolution 127 eV or better at Mn-K $\alpha$ ,

(c) Detector area should be  $\geq 30$  mm<sup>2</sup> for handling high count rates with high input count up to 2MCPS

(d) Elemental analysis (point, line, area analysis and elemental mapping with imaging facility, drift correction, spectrum matching etc.

(e) EDS analysis software

(f) Standard sample set for quantitative analysis (for this, supplier may quote separately).

(g) External control of detector to avoid collision of the samples.

•**Accessories:** (a) A separate computer system of latest version and high end processor, with 6 USB ports, RAM, 2 TB Hard disk, DVD RW, Mouse, Keyboard, etc. windows based operating system with TFT high resolution touch screen monitor and high resolution colored printer with all other accessories.

(b) Compressor for all pneumatic operations.

(c) Infrared chamber scope (IRCCD)

(d)Control panel for adjustment of various SEM functions like focus, magnification etc.

(e) Bench Top Sputter Coater with Turbo Pump for Gold / platinum etc coatings.

(f) Interface between FESEM and EDS

(g) 3 additional emitter (total 4 no's)

(h) Spares (Detailed list to be attached with the quote)

•**Optional items:**(1) Quoted FE-SEM system should be hooked up with optical microscope.

(2) STEM detector with bright field and dark field detectors. (All parties are requested to quote the price for the STEM as an optional item).

•**Up-gradation facility: FE-SEM system should be up-gradable to attach the WDS in future.**

		<ul style="list-style-type: none"><li><b>. UPS &amp; Chiller for FESEM and all other consumable spares &amp; tools should be supplied with the equipment.</b></li><li><b>. Equipment should be supplied with Warranty and AMC executed.</b></li><li><b>. Final specifications shall be determined in the pre-bid conference.</b></li></ul>		
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**(Tender opening format)**  
**(To be filled-in by the Bidder)**

Name of the firm:- \_\_\_\_\_

Tender for supply of \_\_\_\_\_

NIT No. &Date:- \_\_\_\_\_

Technical specification/ literature attached:- Yes/No

Valid tax clearance certificate attached:- Yes/ No

Registration/ Authorization Dealership/  
manufacturer certificate attached:- Yes/ No

Revenue stamp affixed. Yes/ No

Rates covered with transparent tape:- Yes/ No

Bid document fee deposited:- Yes/ No

Call Deposit Receipt enclosed:- Yes/ No.

Bid price in Indian Rupees:- Yes/ No

FOR Srinagar:- Yes/No

Bid without correction/overwriting:- Yes/ No

Seal & Signature of the Supplier.

**Annexure-B**  
**BID FORM**  
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From M/S.....

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To,  
Officer In-charge,  
Central Purchase unit, NIT Srinagar.

Ref: NIT No.: NITS/CPU/ /2017-18 Dated:.....goods/Equipment for  
.....Department

Sir,  
With reference to above invitation for bids we would like to say that we have gone through your bid document thoroughly and hence offer our competitive Technical/Price Bid in sealed envelope for the supply of various goods/equipment listed in your document.

The following documents constitute our Bid.

- (a) Bid form
- (b) Price Bid schedule in the requisite format
- (c) Authorization dealer ship certificate from the manufacturer
- (d) Valid sales tax certificate
- (e) Technical literature for the goods/equipment
- (f) Names of organization where this equipment has been supplied. (Applicable for equipment whose unit price exceeds Rs.2.00 lacks
- (g) Bid security as mentioned in the schedule of requirements in the form of CDR drawn in favour of the Officer In-charge Central Purchase Unit NIT Srinagar.
- (h) Telephone No.....

Kindly feel free for any enquiries and clarifications.

Yours Sincerely

(.....)  
From M/S.....

Place.....

Date.....

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**Annexure-C**  
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**Technical specification.**  
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*Name of Equipment /Goods : e.g.,*

*Make /Model/ Country of origin: e.g.....*

S. No.	Technical Specifications (as per. NIT/CPU/13/ aaaa-aaaa Advertised)	Technical Specifications of the Make /Model	Complies	Higher/Better (with detail quantification)	
				Higher/Better	Quantification
1			Yes	----	
2				Higher	
3					



