



Ravenshaw University Cuttack

TENDER FOR THE SUPPLY OF FESEM (High Resolution Field Emission Scanning Electron Microscope with EDS)

TENDER NO.: 922 Date: 15-03-18

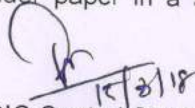
Sealed tenders are hereby invited by Ravenshaw University, Cuttack from reputed Manufacturers/Dealers for procurement of **FESEM (High Resolution Field Emission Scanning Electron Microscope with EDS)**. The details specification is available in Annexure-I.

The Tenderers should submit the completed documents along with a Bank Draft drawn in favor of the "**Ravenshaw University**" payable at Cuttack for **Rs.1000/-** as the non-refundable tender fee if total quoted value is more than one lakh.

The Tenders should be accompanied with EMD, 2% of the quoted value (refundable) of equipment on the tender documents in the form of Demand Draft drawn in favour of "Ravenshaw University" payable at Cuttack if total quoted value is more than one lakh.

Tenders marked as "**TENDER FOR THE SUPPLY OF FESEM, Dated: _____**." at the corner of the envelope should reach the Ravenshaw University, Cuttack on or before **1 PM on 28.03.2018 and it will be opened on same day at 3 PM.**

Bank drafts of application fee and EMD should be submitted along with tender paper in a separate envelope.


15/3/18
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Ravenshaw University

Terms & Conditions:

1. The Quotation paper, filled in every respect must reach the undersigned with copies of relevant documents on or before **28.03.18 by 01.00 PM** by Speed /Registered / Courier post.
2. The Bidders are requested to submit the Technical Bids and Price Bids separately in two different covers. Each cover should be earmarked as to know the contents within as either "Technical Offer" or "Price Offer". Both these covers should be placed in a third cover super scribed as "**TENDER FOR THE SUPPLY OF FESEM, Dated: _____**".
3. Quotation of the bidders, who qualify for the Technical bid, will be eligible for Commercial comparison. The bidders, who do not qualify Technical bid, will have their quotation rejected.
4. Copies of the credibility certificates and valid authorization certificates of various relevant products must be enclosed with the quotation.
5. The firm is required to enclose copies of its current valid GST Clearance Certificates and PAN Certificate with the quotations.
6. In case of negligence of the firm, the undersigned reserves the right to cancel the order and actions may be initiated as deemed fit against the firm.
7. The quoted prices must include rates and taxes applicable for educational institutions and delivery at site i.e. Ravenshaw University.
8. All Tenderers will be evaluated and compared on the basis of the following order :
 1. Compliance with the Instructions/General Conditions of the Tender.



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- II. Conformity with the Specifications.
 - III. Proof of ability.
 - IV. Delivery Period.
 - V. Guarantee/ Warranty, expiry period offered.
 - VI. Quality.
 - VII. Price.
 - VIII. Past experience.
 - IX. Authorization letter from Manufacturer
9. The following Documents should accompany the Tender.
- I. Tender duly completed and signed
 - II. Specifications
 - III. Bidding data sheets/Offer sheets duly completed and signed.
 - IV. Tender Fee as applicable.
 - V. EMD as applicable
 - VI. Copy of GST Registration.
 - VII. Certificate of Incorporation/Business Registration.
 - VIII. All other documents as mentioned in the term and condition.
 - IX. Authorization letter from Manufacturer
 - X. Certificate of proprietary item if any
10. GST may be charged against as per the rules applied to an educational institution.
11. Any dispute arising out of the transaction shall be subjected to the jurisdiction of Orissa High Court, Cuttack only.
12. The Tenderers are required to submit the Quotation papers filled in, with other supportive documents, failing which, they may be rejected.
13. The undersigned reserves the right to reject any or all quotations received without assigning any reason thereof.

N.B:- Incomplete data in any respect is liable for rejection.

OIC Central Stock & Store
Ravenshaw University

Memo No. 923 Date. 15-03-18

Copy To:- Registrar/COF/ Co-Ordinator, RUSAOIC Stock & Store/Office Superintendent/ /Steno to VC for Information

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Ravenshaw University



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Tender No. _____ Dt. _____

1. Name of the Firm :
2. Address :
3. Phone No :
4. Contact Person :
With mobile
5. PAN (copy enclose) :
6. GST (copy enclose) :
7. Tender Fee Details :

Declaration:

We do hereby declare that, we have gone through the details of the technical specifications and other terms and conditions mentioned in the Tender Paper received against the Tender, Tender No. _____ Dt. _____ and will abide by them.

Authorised Signatory with Seal & Date
On behalf of the Firm.



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ANNEXURE - I

SPECIFICATIONS FOR FESEM (High Resolution Field Emission Scanning Electron Microscope with EDS)

1.	Resolution	0.7 nm or better @15KV & must be better than 1.2 nm or better @1KV.
2.	Magnification	X15 to x10,00,000 or better
3.	EHT	Lower limit 20Volts or lower Higher Limit :30KV or higher All the KV settings must be operated /achieved by software.
4.	GUN	Schottky Emitter
5.	Chamber	Large chamber with at least 10 accessory port.
6.	Stage	5 axis motorized Eucentric/ compucentric stage with motorized stage movements equivalent to or better X=130mm or more Y=80mm or more Z=40mm or more Tilt=-3-70°or better R=360°continiusoly
7.	Electron Optics & Aperture	Beam Deceleration/Beam Booster technology/Gentle Beam technology or equivalent technology for high resolution imaging at low KV. All the recommended attachment (if any) must be offered in the offer itself, to work the above mentioned options. Magnetic/Electrostatic objective lens assembly/hybrid lens assembly or equivalent lens system for getting high resolution imaging of magnetic materials with shorter working distance. The lens system must be water cooled. The system must have motorized aperture.
8.	Probe Current	At least 100nA or higher
9.	Detectors	a) Chamber SEI detector. b) In-Lens SEI detector/Upper secondary electron detector /In column detector or equivalent detector for high resolution imaging in High Vacuum. c) BSE detector, detector must be Semi- conductor type.
10.	User Interface	Keyboard, Mouse with multifunction for the control and adjustment of frequently used SEM parameters.
11.	Display	1 No. 24" Monitors for FESEM
12.	Vacuum System	Suitable vacuum system having ion pump, Turbo Pump & R.P.
13.	Accessories	a) High resolution printer. b) Chiller. c) Compressor. d) Infrared chamber scope (IRCCD). f) Interface between SEM and EDS.



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		<p>g) Joystick/Track ball or equivalent device for stage motor control. h) Gold coater with carbon attachment. j) 5 nos of carbon tape k) Control panel /operation key board for manual overriding of frequently used parameters like magnification, contrast, brightness, stigmation etc. l) Critical point dryer for biological sample. m) Suitable UPS with one hour backup. n) 1 no of emitter to be supplied as if when required with aperture .</p>
14.	EDS	LN2 free Peltier cooled SDD detector with minimum resolution 129 eV at Mn K alpha with Quantitative &Qualitative analysis, mapping, Line scan, point id capabilities .The detector area should be 30mm2 or more. Detection from B(5)to U(92).
15	Warranty	Comprehensive warranty for the entire system for 3 years.
16.	Manpower	The supplier will have to provide a high skilled and experienced full time operator to run the system for a period of 1-year from the date of installation of the system in the institute <u>at their own cost</u> . The operator will work as an employee of the vendor and institute shall have no responsibility for his/her service liabilities.
17.	Delivery and Clearance	Supplier has to deliver the consignment to Ravenshaw University. The insurances of the system should be from factory warehouse to Ravenshaw University ware house. The offered price should be inclusive of Customs clearing charges, Local transportation to Ravenshaw University, and insurances charges up to Ravenshaw University warehouse. Ravenshaw University will only provide necessary documents for clearing, (like duty exemption certificate, authorization etc), road permit, and Customs duty at per actual . Lowest one (L1) will be decided considering point no 1 to 17.

Please note the party should have at least 10 FESEM installations across the country for last 10 years.

All the major points mentioned in the specification (like resolution, KV range , Lens system etc) should be clearly mentioned in the brochure, so that these can be cross checked with the technical bid.