

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

NIT No. : IACS/CSS/TKM/2017-18/88

Date: 11/01/2018

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for **Scanning Electron Microscope with LN2 FREE EDS**

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelop, that should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Completed tender bids should reach the office of the **Registrar, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** on or before the scheduled date and time specified below:

Tender Notice No.	NIT No. IACS/CSS/TKM/2017-18/88 Date: 11-01-2018
Last date and time of submitting tender	February 5, 2018 at 2.00 P.M.
Pre-bid meeting(date, time & place) to discuss technical specification	January 29, 2018 at 4.00 P.M.
Date and time of opening tender (Technical Bids)	February 5, 2018 at 4.00 P.M.
Place of opening tender	IACS, Kolkata
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Email: psutkm@iacs.res.in Tel.+91 33 2473 4971 [Ext. 1562]

The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly superscribed as 'TECHNICAL BID' on the outer cover of the envelop as already detailed above. **It should be clearly mentioned on the envelope as "Technical Specification for Scanning Electron Microscope with LN2 FREE EDS "**.

Technical Specification for Scanning Electron Microscope with LN2 FREE EDS:

Resolution	Should be 3 nm or better at 30kV , 20 nm or better at 1 KV; in High Vacuum mode and 4 nm or better at 30 KV in Low Vacuum mode with factory Pre-centered Tungsten Filament.
Accelerating Voltage	0.5KV to 30KV, Probe current at least 1pA to 1uA.
Magnification	Should be Minimum 5X to 3, 00,000X or higher in continuously variable.
Electron Source	Factory Pre Centered Tungsten filament.
Vacuum System	Should give Fast vacuum using air cooled Turbo Molecular Pump/ Diffusion Pump. Safety measures for electron column against any vacuum failure. Low Vacuum pressure should be extended up to 300pa or higher for biological / non conductive specimen observation.
Stage Specification	At least 2-axis Motorised-Fully Eucentric tilt over entire working distance. Movement facility for X = 80 mm or higher, Y = 40 mm or higher, Z = 30mm or higher, Tilt =-10 ° to 90°, Rotation = 360° (continuous).
Chamber	Should be good enough to accommodate samples of diameter of 150mm or more.
Detectors& Scanning Parameters	Secondary Electron Detector & Backscattered Electron Detector Facilities for Scanning control, Image Storage, Image Processing and Detector control Auto gun control and gun alignment, auto bias and auto saturation of gun condition. Automatic/manual control of other features like focus, brightness and contrast etc. Condenser Lens should be offered as standard. Movable and adjustable aperture from outside for both imaging and analysis purpose.
Image display & Processing	23–inch LCD or higher Noise reduction by average or integration method.
Image format	BMP, JPEG or TIFF, Digital Images should have resolution better than 2000X2000 pixels.
Integrated Computer Environment Operating System	With CPU Minimum Intel Core i7 or better Microsoft Window 10, 64-bit based, Mouse / Keyboard control/Printer, should be provided for easy and fast operation.
	Fully mobile and Pc controlled SEM and can be moved by operator from one location to another.
SEM System Disk Drives	Hard disk (1TB or more), Mouse & Key board system control etc.
Digital Store	Excellent image storage capability with resolution 2000x2000 pixels or better. Control through I pad PC.
EDS (Energy Dispersive X-Ray Spectrometer)	LN2 free detector, active area 25 mm ² or higher with 129 eV resolution, Must have mapping, quantitative, qualitative analysis. Complete with hardware and software. Real Time Display of EDS during high magnification observation should be quoted as standard.

SEM sample preparation units should be quoted as standard	
Adhesive Carbon Tape – 2 nos, W Filaments for SEM – 24 nos Aperture Set – 2 nos RP Oil – 2 Lit.	
Installation and Training	Should be done by service engineers free of charge. Operational training should be provided free of charge.
Warranty	The entire system should be cover Three Years of Comprehensive Warranty.

Optional items:

1. Cryo stage holder for biological sample.
2. Sputter coater with Pt target, oil free vacuum system.
3. 5-Axis motorised stage fully eucentric tilt over entire working distance.

Warranty: Minimum 3 years.

Servicing facility within India is a must while service engineer stationed at Kolkata will be preferred.

A list of other places where the instrument has been installed should also be provided.

A compliance table (see below) must be prepared and submitted along with the technical bid.

Sr. No	Tender specification	Your offered instrument specification	Extent of compliance

Tender will not be accepted if the technical compliance chart is NOT provided following the above format.

2. PRICE BID

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as ‘PRICE BID’ on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

PRICE: Price to be quoted on CIF Kolkata and also FOB basis.

3. BID SECURITY:

a. An Account payee Demand Draft/Pay Order of Nationalized Bank for Rs. 1,20,000.00 (Rupees one lakh twenty thousand only) drawn in favour of “Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)” is to be furnished by the bidders along with Technical Bid except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). Alternatively, the Bidder shall have the option to furnish the EMD in the format of Bank Guarantee (BG).

b. The Demand Draft for the Bid-Security should have at least about 90 (ninety) days validity period of opening of the bids.

c. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

4. PERFORMANCE SECURITY:

An Account Payee Demand Draft on any nationalized bank of India of 10% of the order value in the name of “Indian Association for the Cultivation of Science” is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

5. TERMS OF PAYMENT :

Payment will be made through irrevocable Letter of Credit in two installments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

6. GENERAL INSTRUCTIONS :

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.
2. The tender should accompany a compliance chart.
3. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
4. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally to visit the website (www.iacs.res.in/tender) for any amendment.
5. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
6. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers who are responsible for after sales support. Response time should be within 24 hrs.
7. The model number, make and a printed literature of the product should be submitted positively.
8. Proposed delivery schedule should be mentioned clearly.
9. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
11. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
12. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
13. In case of any dispute, the decision of IACS authority shall be final and bidding on the bidders.
14. For any clarification regarding technical specifications, information etc., please send your queries to Prof. T. K. Mandal (psutkm@iacs.res.in).
15. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar