

Indian Institute of Technology, Kanpur
G.T. Road, Kalyanpur, Kanpur – 208016

Uttar Pradesh, India



Cancelled

Notice Inviting Tender

[Signature]

Tender Details

Tender Reference Number	IITK/ES/2025/AA/04
Item Description	Automatic Sticking - Scanning Electron Microscope (SEM)
Item Quantity	one
Bid Submission Start Date & Time	(Cancelled)
Bid Submission End Date & Time	(Cancelled)
Bid Opening Date	(Cancelled)
Bid Submission Address	Dr. AMAR AGARWAL, Asst. Professor, Department of Earth Sciences, Room no 104, ESB 3 Building, IIT Kanpur, Kanpur-208016. (0512 259 2145) amarag@iitk.ac.in

Sealed quotations are invited for the purchase of the above items in the Two bid system. Both Technical bid and financial bid in separate envelopes must be kept in a big envelope which must be superscribed by Tender Reference number, Item Description and bid submission end date. The sealed copy of bids must reach the above designated address on or before the Bid Submission End Date & Time.

Technical Specifications:

Specifications for Automated Stitching Scanning Electron Microscope

Sr. no	Parameter	Description
1.	Resolution	High Vacuum: 3nm or better at 30kV ; 15nm or better at 1kV Low Vacuum: 4nm or better at 30kV
2.	Format	Floor standing (not table top)
3.	Filament	Pre centered Tungsten filament
4.	Accelerating voltage	0.5 kV to 30kV or better
5.	Magnification	5x to 300,000x or better
5.	Probe current	1pA to 0.3 uA or better
6.	Detectors	SE (secondary electron detector), & BSE (backscatter electron detector) Back scatter Detector should give composition, topography and shadow image as well
7.	Low vacuum range	10Pa to 100 Pa or better High vacuum to low vacuum changeover: There should not be any manual aperture insertion / part insertion to convert high vacuum mode to low vacuum mode
8.	Maximum sample size	150 mm diameter or more, 45mm height or more
9.	Stage motorization	5 axes or better motor drive Eucentric stage, X = 80mm or better, Y = 40 mm or better, Z = 45 mm or better Tilt: - 10° to 90° or better Rotation: 360° Cartesian stage and compucentric stage is not acceptable, it should be printed on the catalog that offered model stage is eucentric
10.	Image format	BMP, JPG, TIFF
11.	Image pixels	5120 x 3840 pixels or better
12.	PC	PC has to be provided Touch screen monitor : 23 inch or better, Operating system Windows 10 or latest, MS office licensed, Keyboard and mouse, CPU: minimum Intel Core i7 latest generation or equivalent c) minimum M.2 512 GB SDD d) Graphics card with minimum 4 GB RAM e) Min. 16 GB DDR4 RAM, adequate number of ports (Ethernet, front and rear panel USB ports)
13.	Image display mode	Full screen display, Multiple display, Signal mixing, Histogram display, Pseudocolor display

14.	Pumping system	Fully Automatic Turbo Molecular Pump with Rotary Pump
15.	Desired Features	Safety measures should be built in, Auto contrast, Auto focus, Auto stigma, Auto gun alignment and biasing, wobbler, click center zoom, Saving position coordinate, Custom icon, Seamless Auto bias, Measurement functions like angle, area, line draw etc. specimen chamber evacuation takes less than 3 mins, Montage feature should be present in software
16	Zeromag	Seamless transition from optical to SEM image should be possible, it is mandatory feature
17.	Accessories	• Carbon Tape 2 nos • Filament 1 set: 12 nos. • Aperture: 5 nos. • Specimen Holder: 2 nos. • Forceps: 2 nos
18.	On site Installation and Training, pre installation requirement	Vendor has to do installation and provide onsite training. After the PO, engineer to visit site for physical inspection and has to do site survey free to cost basis, pre installation requirements to be submit along with offer
19.	Warranty	Comprehensive 1< years from the date of installation + 2 years AMC; warranty for all parts including accessories, spares, and labor-on site including shipment at the site of installation. Free maintenance and service on-site or at factory with no additional cost within the warranty period. Technical support for the entire system and supply of spares for a minimum period of 10 years from the date of installation.
20.	Essential	1) Quoted SEM model should be a globally sold model and it should be available on all global websites of manufacturer, model quoted should not be a country specific & Upgradable to EDS, EBSD, CL etc... 2) It should be a floor-based model.
21.	Documentation needed	Suitable, technical documentation (brochure and website) highlighting the following should be provide for: Accelerating voltage, Magnification, Probe current , Detectors, Low vacuum range, Stage motorization, Maximum sample size, Zeromag.
22.	Technical documents	1) Compliance statements (vis-à-vis) against all the parameters of tender requirements in tabular form, duly signed and stamped by the authorized person of the company along with the supporting technical

		literature/brochure in support of compliance of the specifications must be provided along with the technical bid. 2) Technical manuals in English language containing wiring, power, and control circuit diagram and quick troubleshooting guide should be supplied with the equipment. 3) One set of instruction manual and service manual (both hard and soft copy in English) should be supplied with the equipment.
23.	Further conditions	Service technicians should be available in India.
All necessary documents including proper datasheet of the quoted model should be given at the time of bid submission without fail for technical evaluation. Bidders are requested to submit the acceptance of specification/compliance statement on their Company's letter Head duly stamped and signed. Any deviation in the specification may be subject to rejection of the bid.		

General Terms and Conditions:

- All equipment must be compatible with Indian electrical standards and codes. Engineering documentation on the physical sizes and weights of all major and minor components must be submitted. The pre-installation check-up, installation, commissioning, and demonstration of the complete system is to be carried out by the supplier are free of cost.
- Gross weight, dimensions, footprint, and the pre-installation requirements such as room size, floor plan, electrical requirements should be sent immediately after the placement of the purchase order.
- A copy of the above needs to be enclosed along with the tender bid. Necessary environmental requirements, i.e. temperature, humidity etc. during the operation (and unused hours) of SEM should be specified clearly with the bid.
- The installation site should be measured physically to check its suitability for the above pre-installation requirements by the vendor. The entire process of installation, interfacing the main system with its subsystems, and commissioning should be carried out by well-trained and technically competent engineers from the supplier.
- Company must be ISO certified and offered model should be CE compliant. For items manufactured by third party, the vendor should provide authorization to quote from the original manufacturer. The vendor offering the SEM has to take complete responsibility of arranging the installation and commissioning of all the parts including all the accessories.
- After installation, a complete demonstration of all the features of the SEM set-up should be included using the samples provided by the end-user, and the demonstration should meet the expectations of the end-users with complete satisfaction.

- After successfully installing and commissioning, free initial on-site training on different applications should be provided by an Application Expert to minimum 5 users at least for 2 weeks with no additional charges.
- There should be a provision for on-line remote diagnosis of faults. They should also submit the name(s) of the service engineer(s) employed by them who is/are competent in maintenance and servicing the equipment along with their locations in India. Complaints regarding functioning of the instrument should be responded by a company trained and authorized engineer within 48 hours. Any delay beyond 120 hours due to the unavailability of manpower would get added to the warranty period.
- Warranty should be minimum 1 < year after installation + 2 years AMC. Free installation and demonstration at buyer's site by the principal technical team. Genuine technical catalogue and website details must be submitted.
- The repair issues must be attended to within 2 business days of reporting the issue. In case the parts are required to be imported for repairs, the same should be made available within 2 weeks from the date of reporting of the issue. The manufacturer should have provision to supply repair parts in foreign currency through direct order from IITK after the expiry of the warranty period.
- The vendor must have at least 3 successful installations of the same or equivalent equipment the reputed research organization, academia Like IITs, NITs, DRDO, ISRO, and Central Universities. If necessary, we may request comprehensive information about the list of end users and their feedback.
- User List: Should provide user list with contact (address and Phone anywhere in India or abroad) details and installation reports mentioning the make and model, where the quoted model and/or similar systems have been installed in last 05 years. The vendor should provide proof of after sales-service and availability of spares and accessories. Only models launched after January 2025 which provide the latest technology may be quoted. The vendor must provide the release note from the principals.
- During warranty, service engineers must be available within four working days to attend to any problem with the instrument.
- Delivery must be completed within 2-3 months from the date of the order being placed. Offered price should be inclusive of all type of charges including Customs Clearance Charges, FOR Earth Science department, Indian Institute of Technology Kanpur (IITK).
- The institute reserves the right to cancel the tender at any stage without detailing any reason.


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