Tender Notification for the procurement of a "Environmental Scanning Electron Microscope" at IISc (Last Date for submission of tenders: 29th September 2016)

Dear Sir/Madam,

Kindly send your best quotation for the following item on C.I.P. Bangalore basis. Your quotation should clearly indicate the terms of delivery, delivery schedule, E.D., payment terms etc. The tender should be submitted in two separate sealed envelopes - one containing the technical bid and the other containing the commercial bid, both of which should reach us, duly signed on or before 1700 hours 29th September, 2016.

Please enclose a compliance certificate along with the technical bid.

SL. NO	SPECIFICATION	Optional	YES/NO	YOUR SPECFICATION	IF NO, DEVIATION
1	**PRESSURE** • High vacuum: $\leq 6 \times 10^{-4}$ Pa • Low Vacuum: $\geq$ 500 Pa	WRG vacuum gauge			
2	**RESOLUTION** • SE detector: 5 nm at 30 KV or better • BSE Detector: 5 nm at 30 KV or better • Magnification $\leq$ 50X to $\geq$500,000X	5 nm or better resolution under low vacuum condition Magnification – 1X to 2,000,000			
3	**SCANNING** • Fastest rate: 50 ms for 1 mega pixel or better. • Maximum image resolution up to 20 mega pixel or better • Video recording capability				
4	**SEM OPTICS** • Electron gun type: Schottky FE • Probe current: $\leq$1 pA to $\geq$200 nA • Acceleration	Possibility of decelerating electrons to low electron beam energy $\leq$ 50 eV			

	voltage: ≤300 V to ≥30 kV • Field of view: >20 mm at WD of 30 mm	Identical field of view under low and high vacuum conditions			
5	**CHAMBER** • Size: ≥ 250 mm (W) × ≥ 300 mm (D) × ≥ 250 mm (H) • Door size: ≥ 250 mm (W) × ≥ 250 mm (H) • Anti vibration support • Minimum of 8 free ports for electrical and mechanical feedthroughs • Capable for inspection of 6-12'' wafers • Should be able to include large fixtures of sizes ≥150 mm × ≥150 mm × ≥ 50 mm • High & Low Vacuum pumping using TMP	≥ 10 free ports			
6	**DETECTOR** • HV-SE, LV-SE, & BSE • In lens SE and BSE • Chamber view CCD camera	STEM detector, 3-D profilometry			
7	**STAGE** • Movements: 5-axis-computer controlled • Range: X ≥50 mm, Y ≥ 50 mm, Z ≥ 50 mm • Rotation: 360 º • Tilt: ≤ -15º to ≥ 75 º	Heating attachment for stage Provisions for applying electric filed across sample			

	• Allowing simultaneous changes in tilt and rotation while maintaining the same feature in the field of view • Supported Load: 3 Kg or more • Ability to keep the same location on sample in focus as the magnification is varied	Door mounted stage			
8	• Spare parts kit for 2 years operation and consumables • Specimen holders/ stubs				
9	Service and training team should be in India	Bangalore / Southern India			
10	Warranty (parts and labor): 3 years				
11	Payment terms: 80 % with PO and 20 % after installation				

Additional optional item:

- 3D imaging preferable without tilting; Raw data from the acquired 3D images must be made available for post processing by software developed in-house.

Acceptance criterion:

Demonstration of all aforementioned technical specifications on site after installation

Terms & conditions

1. Price for all other upgrades such as EDS and EBSD may also be given. These will be procured at a later date as and when required. The vendor should also make sure that the price quoted would be valid for a period of 2 years. Reasonable change in the price will be accepted.
2. Two-bid system (separate technical and financial bids) in sealed tenders.
3. The technical bid must clearly specify the prescribed technical specifications without including the prices. Please provide in detail the specifications under the above subheads.

Unique characteristics may be highlighted. Vendors who include price information in the technical bids will be automatically disqualified.

4. Technical bids will be opened first. IISc may seek clarifications after opening of technical bids, and may ask them to perform some example experiments on the sample given by IISc to demonstrate the promised technical specifications. Vendors may be required to give presentations. There are several items that require information to be provided by the supplier. If information is not provided against any of these items, this will disqualify the supplier. After technical evaluation by a committee, vendors may be asked to re-quote in a specific format to facilitate comparison of prices. IISc also reserves the right to cancel the tender at any time without assigning any reason whatsoever.
5. Price bids of only technically qualified vendors will be considered and the vendors will be informed the day of opening the price bids.
6. The price bids must offer CIF Bangalore prices.
7. Prices to be quoted separately for baseline system and options. Prices will should be quoted in adequate detail with relation to packing details to cover insurance compensation in case of damage to any specific modules
8. Indicate separately price of spares listed above in terms of unit cost. The price of these spares will be included in the price comparison. Any additional spares recommended by the company will be considered for ordering but not included in the comparison. The buyer reserves the right to make the final decision on ordered spares
9. Indicate price for annual maintenance contract.
10. The payment will be by letter of credit: payable 80% on shipping, 20% after satisfactory installation and acceptance.
11. Indicate Delivery period
12. Order will be placed on lowest bid from technically qualified vendor
13. The tender documents can be sent at the following address:

Dr. Praveen Kumar
Assistant Professor
Department of Materials Engineering
Indian Institute of Science, Bangalore 560012
Karnataka (INDIA)