

INVITATION LETTER

Package Code: TEQIP-III/2019/WB/fetj/67

Current Date: 08-Aug-2019

Package Name: W-Type scanning Electron Microscope

Method: Shopping Goods

To,

Sub: Invitation for Quotations for Supply of Goods

Dear Sir,

- 1) You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications as given at Annexure - I,

Sr. No	Item Name	Qty.	Delivery Period (In days)	Place of Delivery	Installation Requirement (if any)
1	W-Type scanning Electron Microscope	01	45	CoE, Department of Metallurgical & Material Engineering	Yes

- 2) Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.


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3) Quotation:

3.1. The contract shall be for the full quantity as described above.

3.2. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.

3.3. All duties and other levies payable by the supplier under the contract shall be included in the total price.

3.4. Applicable taxes shall be quoted separately for all items.

3.5. The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

3.6. If you require any "waybill" for transportation of goods to Kolkata, you have to apply in advance separately with a copy of Invoice enclosing a copy of order.

3.7. The Prices should be quoted in Indian Rupees only.

4) Each bidder shall submit only one quotation for most suitable one for the item mentioned only, without any optional item.

5) Validity of quotation: Quotation shall remain valid for a period not less than 45 days after the last date of quotation submission.

6) Evaluation of Quotations:

The Purchaser will evaluate and compare the quotations found to be substantially responsive i.e. which

6.1. are properly signed ; and

6.2. Conforming to the terms and conditions, and specifications.

7) The Quotations would be evaluated for all items together.

- Quotations will be compared on the basis of quoted price (Total Cost including all taxes) for goods at its final destination.
- Past performance & experience may be furnished to consider the credential of the bidder
- University enjoyed concessional rates for customs GST etc which may be considered at the time of submitting the quotation.


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8) Award of contract: The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially technically responsive and who has offered the lowest evaluated quotation price.

8.1. Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

8.2. The bidder whose bid is accepted will be notified for the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

9) **Delivery:**

9.1 Delivery period mentioned in the Purchase Order received by the vendor must be maintained. In case of failing the delivery within stipulated date the order may be canceled if proper justification is not received from the vendor in time.

9.2 Liquidated Damages will be applied as per the below:

a) Liquidated Damages Per Day Min % : Nil

b) Liquidated Damages Max % : Nil

10) **Payment:**

10.1) Payment shall be made in Indian Rupees as follows:

100% of the total cost after delivery, satisfactory installation along with demonstration and testing of the goods and also acceptance by the department.

10.2) Payment will be done by online transfer to the bank account of the vendor by NPIU, New Delhi after formalities. Vendor must provide the following details for bank transfer. (a) Account holder Name, (b) Account No., (c) Bank Name, (d) Branch Name, (e) IFSC No., (f) PAN, (g) TAN, (h) GSTIN, (i) TIN, (j) Mobile number.

11) All supplied items are under normal commercial warranty/ guarantee of not less than 12 months from the date of successful acceptance of items, unless specified of warranty for longer duration in the specification.

12) You are requested to submit your offer on or before **15:30 hours on 22nd August 2019. Bids will be opened on the same day at 16:00 hours.**

13) Detailed specifications of the items are at Annexure I.



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14) Training Clause (if any) **Demonstration at the time of Installation are to be confirmed.**

15) Testing/Installation Clause (if any) **Satisfactory Installation & Testing is required.**

16) **Performance Security shall be applicable: Nil**

17) **Submission of video footage of the successful installation and testing along with Model No. & SL. No. is preferred.**

18) Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

19) Sealed quotation to be submitted/ delivered, **within 15:30 hours on 22nd August 2019**, at the address mentioned below,

TEQIP CELL, 2nd Floor, Aurobindo Bhavan, Jadavpur University, 188, Raja S. C. Mallick Road, Kolkata- 700 032.

We look forward to receive your quotation and thank you for your interest in this project.



Prof. Sanjib Acharyya

Nodal Officer, Procurement

TEQIP, Phase-III, JU

Nodal Officer (Procurement)

TEQIP Phase-III

Jadavpur University

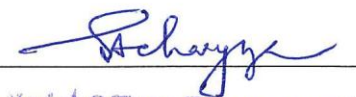
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Annexure I

Package Code: TEQIP-III/2019/WB/fetj/67

Sr. No	Item Name	Specifications
1	W-Type scanning Electron Microscope	<p>Latest state-of-the art design, fully automated Scanning Electron Microscope (SEM) with necessary accessories for imaging of all kinds of samples including material, biological, geological, pharmaceutical, polymer etc including CL and ECCI imaging. The system should be capable for integration of EDAX, EBSD, Hot & Cryo-Stage.</p> <p>Resolution:</p> <ul style="list-style-type: none">• 3 nm or better at 30 kV (SED) with Secondary Electron Detector (SED) in high vacuum mode• 4 nm or better at 30 kV (BSE) with back Scattered Electron Detector (SED) in low vacuum mode.• 15 nm or better at 1 kV with Secondary Electron Detector (SED) in high vacuum mode• 10 nm or better in with Secondary Electron Detector (SED) in low vacuum mode. <p>Operational Modes:</p> <ul style="list-style-type: none">• High Vacuum mode• VP/Low Vacuum mode (at least up to 600 Pa or more) <p>Accelerating Voltage: Continuously variable from 0.2 or 0.3 kV to 30 kV.</p> <p>Probe Current: At least 2 μA or more</p> <p>Magnification: 5x to 3,00,000x continuous magnification (actual), not Display magnification</p> <p>Camera Navigation: The SEM should have suitable Camera Navigation System, interfaced in SEM GUI.</p> <p>Electron Source: Pre-centered Tungsten (W) filament</p> <p>Lens Configurations: The SEM is equipped with suitable Condenser lens and Objective lens. Stigmator Correction Lens to reproduce better results.</p> <p>Objective Movable Aperture: The SEM should have Objective Movable Aperture, with the manual control and Aperture changing mechanism from outside the SEM column.</p>


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Vacuum System: Fully Automatic Vacuum sequence using Turbo Molecular Pump (TMP) and backed by rotary pump (RP), and fully automatic Solenoid Valve operation.

Stage Specification: 5-axis Motorized Eucentric / Compucentric Stage with following movement facility

X = 0 to 75 mm or higher

Y = 0 to 50 mm or higher

Z = at least 50 to mm or higher

Tilt = - 20° to +90° or better

Rotation = 360° continuous

Facility to accommodate multiple specimens.

Ten numbers of ports in chamber must be available for adding up accessories now or in future.

Specimen Specification:

- Maximum Specimen Size: 200 mm or more in diameter,
- Max. Sample Weight: 2Kg or more
- Max Sample Height: 80mm or more without removing any part of the stage.
- Facility to accommodate multiple specimens.

Detectors:

- Secondary Electron Detector (ET-SED) for use in high vacuum mode.
- 5 segmented Semiconductor type BSE both for high vacuum Mode, Low vacuum Mode
- Variable pressure SE Detector(Ultra sensitive low vacuum detector (UVD)
- CL imaging only facility.
- BSE detector should be able to carry out Electron Channeling Contrast Imaging (ECCI).
- Chamber scope

Auto-Axis Alignment. Function:

- Beam control: auto (AFS→ABA→AFC→ABCC)
- Optical axis adjustment: (current alignment)
- Beam brightness: auto

Auto Image Adjustment Function:

- Auto brightness and contrast control (ABCC)
- Auto focus control (AFC)
- Auto stigma and focus (ASF)
- Auto filament saturation (AFS)
- Auto beam alignment (ABA)
- Auto start (HV-ON→ABCC→AFC)



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Computer systems:

- High-end Computer system with high capacity Hard disk (1TB or more) and CD/DVD writer drive, 24" TFT Color monitor, Key board, mouse, color printer.
- The PC is equipped with latest licensed windows operating system.

Software:

- Complete software for the SEM and related accessories for data acquisition, analysis and interpretation included in the system configuration.
- 3-D Image Analysis and Measurement software.

Control Panel: Manual User Interface Control panel for controlling and adjustment of frequently used SEM parameters like contrast, brightness, magnifications etc. using key board / rotary knob.

Joy Stick: Joy Stick and Track ball for stage movement control.

Accessories for SEM:

- 2 rolls of carbon tape.
- Specimen stub: 20 nos.
- Tungsten Filaments: 50 nos.
- Aperture set: 2 nos.
- RP Oil: 2 liters.
- O-ring: 2 set sets
- SEM & EDS integration kit
- Desiccators (2 nos.) for sample preserving


Upgradability: The system should be ready for upgradation with EDS, EBSD, Cold & Hot stage, Cryo-Stage etc. ,tensile deformation stage, CL spectroscopy as & when required.


UPS: Suitable UPS system with 30 minutes backup for the complete system.

Safety Features: The SEM should have both mechanical and electrical safety mechanism to avoid the sample collision specially with the pole piece, inside the SEM.

Installation, Commissioning and Training:

- The system to be installed by trained & certified engineer at the installation site
- After successful completion of installation, the required two-week operational training needs be provided to the deputed personnel on the complete system.


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		<p>Warranty:</p> <ul style="list-style-type: none">• The entire system must have has 1-year full comprehensive warranty after installation, commissioning and handover of the system including UPS.• Additional 2 years AMC including UPS with no additional cost. <p style="text-align: right;"></p>
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FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Package Code: TEQIP-III/2019/WB/fetj/67

Date: _____

To: _____

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Applicable Taxes	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. -----
(Amount in figures) (Rupees ----- amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of ----- months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No: _____