Bundelkhand Institute of Engineering & Tech., Jhansi
Uttar Pradesh, 284128

INVITATION LETTER

Package Code: TEQIP-III/2019/UP/biej/143
Package Name: AS_Multi Mode Ambient Scanning Tunneling Microscope

Current Date: 03-Aug-2019
Method: Shopping Goods

To,

Sub: INVITATION LETTER FOR AS_Multi Mode Ambient Scanning Tunneling Microscope

Dear Sir,

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

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	Scanning Tunneling Microscope	1	BIET, Jhansi	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.

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, initialling, dating and re writing.

3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit 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 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.

5. Quotation shall remain valid for a period not less than **60**days after the last date of quotation submission.

6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which

6.1 are properly signed; and

6.2 Confirm to the terms and conditions, and specifications.

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

8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially 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 of 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. Payment shall be made in Indian Rupees as follows:

Payment Description	**Expected Delivery Period (in Days)**	**Payment Percentage**
Satisfactory Delivery and Installation	30	90
Satisfactory Acceptance	30	10

10. Liquidated Damages will be applied as per the below:
Liquidated Damages Per Day Min %: N/A
Liquidated Damages Max %: N/A

11. All supplied items are under warranty of **36** months from the date of successful acceptance of items and AMC/Others is **.**

12. You are requested to provide your offer latest by **15:00** hours on **20-Aug-2019.**

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

14. Training Clause (if any) **Yes**

15. Testing/Installation Clause (if any) **Yes**

16. Performance Security shall be applicable**: 0%**

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

18. Sealed quotation to be submitted/ delivered at the address mentioned below,
To,
The TEQIP Coordinator
Civil Engineering Building
Bundelkhand Institute of Engineering & Tech., Jhansi,
Uttar Pradesh, 284128

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

(Prof. Mukesh Shukla)
Nodal Officer Procurement

Annexure-I

S.No.	Description	Qty
1.	A Scanning tunneling microscope comprising • A suitable Scan-head • The Controller and Data-Acquisition Electronics • An independent Lock-in Amplifier • A Suitable Vibration Isolation Platform • An appropriate Acoustic Isolation Shield • Software USB Drive • A Toolkit (with tools for tip and sample changing, spare sample mounting discs, conducting silver paste, tip wire cutters) • A clear instruction-cum-user manual • Two Pre-mounted Calibration Samples, one for large area scans and one for calibration at the 0.1nm level. • Pt/Ir and Tungsten Tips (10 each) with 1m extra of tungsten wire. • Reference Sample Kit (with 10 pre-mounted samples having HOPG, DVD and BluRay samples) • A third-party branded computer with essential specifications. With the following Specifications: • The STM should work under ambient conditions. • Variable scan area with different scan ranges: • Maximum Scan Area: > 3.50µm x 3.50µm • Minimum Scan Area: < 2nm x 2nm (for Atomic Resolution) with X/Y Resolution of 7pm or better • Tunneling Current range: +10nA to -10nA in steps of 5pA • Z-resolution: 15pm or better • Sample Bias Range: - 10V to +10V in Steps of 0.3mV or better -100V to +100V in Steps of 3mV or better • Sample Mounting support of at least 10mm dia • Digitally controlled feedback parameter (Gain, Time Constant) adjustment • Lithography pulses of width down to 50 micro-seconds • Imaging modes: • Constant height • Constant current • Dynamical Conductance/Local Density of States • Local Barrier Height • Fully integrated lock-in amplifier for dynamical conductance/local density of states (LDOS) imaging simultaneously with topography • Local barrier height imaging simultaneously with topography through the same lock-in amplifier.	01

	• Independent Lock-in Amplifier with 1. Independent X and Y outputs 2. Adjustable integration time constant 3. Pre- & post-amp gain(s) of 1, 10 & 100 4. Frequency range of 10 Hz – 100 KHz or higher 5. Reference output of 2V peak-to-peak. • Spectroscopy Modes: • I/V, dI/dV & Normalized dI/dV spectroscopy in point mode • IZ Spectroscopy • Digitally controlled slope compensation • Essential Software features: • Dual image windows for scan and retrace display for all imaging modes • Export of scanned images to standard image formats like ASCII, jpg, png etc. • In-built software CRO for plotting imaging signal during scans • Graphical X,Y offset selection for localized zooming • X/Y/Z Calibration utilities for the piezo-elements. • 3D rendering of STM images • Spatial and Fourier image filtering tools like slope correction, Fourier Low Pass Filtering, Background Subtraction etc. • Image analysis tools like line profile extraction, measurement of distances, localized zooming • Tip Locator to display current position of the tip over the sample • In-situ tip cleaning & restructuring utility by applying voltage pulses to the sample • The user manual should preferably have 3-5 experiments for pedagogical purposes. • Training to be provided to 1-2 personnel.	

FORMAT FOR QUOTATION SUBMISSION
(In letterhead of the supplier with seal)

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)	Sales tax and other taxes payable	
						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. _____