



भारतीय प्रौद्योगिकी संस्थान, खड़गपुर
Indian Institute of Technology, Kharagpur
Kharagpur - 721302

Tender No: IIT/PHY/18-19/T.ENQ/074/AD/FMD_LAB/02

Date: 21.01.2019

NOTICE INVITING TENDER

Indian Institute of Technology Kharagpur, an Institute of National Importance, invites sealed bids from principal manufacturers or their authorized distributors (foreign firms or their Indian representative companies), who have adequate credential for the Procurement of "Scanning Tunnelling Microscope" at the Department of Physics, IIT Kharagpur.

Interested parties may submit their sealed bids under Two-Bid system as per **Technical Specifications** given at **Annexure I** and **General Terms & Conditions and other formats** given at **Annexure II to VI**. Two covers (Technical Bid and Price Bid) are to be sealed and placed in one large Cover superscribed with tender reference number with date and submitted to "**Prof. Achintya Dhar, Department of Physics, Indian Institute of Technology, Kharagpur, Pin : 721302 on or before 14.02.2019 at 5.00PM.**"

The technical bid will be evaluated first and price bids will be opened in respect of those OEMs/Vendors, who are found technically qualified after evaluation of Technical bids.

Kindly refer to the Institute website www.iitkgp.ac.in [link: Tenders] for complete tender details. The same is also available in the CPP Portal [<https://eprocure.gov.in/eprocure/app>]. If there is any corrigendum/addendum, it shall only be published on Institute's Website and Central Public Procurement Portal.

Indenter /Prof. In Charge,
Name : Achintya Dhar

Head
Dept. of Physics
IIT Kharagpur

To

1. Institute Website
2. CPP Portal
3. Department Notice Board

TIME EVENTS OF VARIOUS TENDER RELATED ACTIVITIES

Enquiry No	Tender No: IIT/PHY/18-19/T.ENQ/074/AD/FMD_ LAB/02 Date: 21.01.2019
Tender Fee (Non refundable)	Nil
Last date for submission of sealed tenders/quotations	14.02.2019 at 05.00PM
Technical Bid opening date/time and place	15.02.2019 at 04.00 PM in Head Office, Department of Physics.
Price Bid opening date/time and place	Will be intimated later to technically qualified bidders.
Two Bid System	Two bids – (i) Technical and (ii) Price bid in two separate envelope- placed & sealed in one envelope
EMD	Rs 40,000.00 (By way of Demand draft from any Nationalized Bank /Commercial Bank and paid in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur and Bank Guarantee as per format at Annexure VI)
Submission of bids (by speed post) (Addressed to)	Name :- Prof. Achintya Dhar Department of Physics, IIT Kharagpur Kharagpur-721302, W.B
Name of the item for procurement and technical specifications	Annexure- I
General Terms and Conditions	Annexure-II to VI

TECHNICAL SPECIFICATIONS

Procurement of Scanning Tunnelling Microscope.

S.No	Name of the item & Specifications	Unit	Quantity
1	Complete Scanning Tunnelling Microscope with following minimum specifications with suitable computer and software:	Each	01
Electronics			
Part No.	Item	Description	
1.1.1	Main Power Supply Input	220-240V AC/50 Hz	
1.1.2	Computer Interface	USB port	
1.1.3	Imaging modes	Topographic imaging with sub-atomic resolution in : Constant-Current(CC) mode and Constant Height(CH) mode	
1.1.4	Imaging modes with Lock-in amplifier(LIA)	Local Density of States (LDOS) Imaging Local Barrier Height (LBH) Imaging	
1.1.5	Spectroscopy Modes with Lock-in amplifier (LIA)	Simultaneous I/V and dI/dV acquisition from STM and LIA output channels, for multiple sample locations	
1.1.6	I-Z Spectroscopy	Tunneling Current vs tip-sample distance plots, Conductance vs Distance plots (Normal and Semilog) with data export options.	
1.1.7	Bias Settings	-10V to +10V in steps of 0.3mV or better -100V to +100V in steps of 3mV or better	
1.1.8	Slope Compensation	Both hardware and software horizontal and vertical slope compensation	
1.1.9	Tunneling Current Range	+5nA to -5nA in steps of 0.1nA or better	
STM Measurements			
1.2.1	Scanner Sizes	Variable scan area with different scan ranges: -Large Scan Area:2.0 μ m x2.0 μ m with X/Y resolution of 0.05 nm or better. -Small Scan Area: ~350 nm x 350 nm with X/Y resolution of 5.3 pm or smaller	
1.2.2	Scan orientation	Horizontal and Vertical	

1.2.3	Imaging modes	Topographic imaging with sub atomic resolution in -Constant Current Mode - Constant Height Mode - Dynamical Conductance Imaging
1.2.4	Z-resolution	Analog Mode : 8 – 10 pm or better Digital : 15pm or better
1.2.5	Sample size	Sample disc dia. 10mm
Software		
1.3.1	Image display	Dual Imaging Window for Scan and Retrace Image Display (Image size: 256x256 to 750x750 pixels)
1.3.2	Sample navigator	Graphical assistant for localized zooming w.r.t. a large area scan
1.3.3	Date export	Export to standard image file formats like jpg, png, ASCII , postscript formats
1.3.4	Analysis functions	Line (Single line profile) Extraction, Localized Zooming, Roughness Display, Measure length & angles on the images, 2D Fast Fourier, Transformation etc
1.3.5	calibration	X/Y/Z- Calibration Utility
1.3.6	Image processing tool	Spatial and Fourier Low-Pass Filtering, Background Subtraction, Histogram Equalization, Zooming, Contrast, Slope Correction etc.
Tool Kit		
1.4.1	Standard Sample	HOPG
1.4.2	Platinum-Iridium tips	10 no's with 0.25mm diameter
1.4.3	Tungsten wire	0.25mm diameter, 1m length
Guarantee/Warranty of above items		01 (one) year after successful installation and demonstration

GENERAL TERMS AND CONDITIONS

1. Payment Terms & Performance Bank Guarantee (PBG):

90% payment will be made on submission of shipping documents and balance 10% payment will be made on installation, commissioning and submission of PBG for performance period if the payment is made by LC, otherwise

90% will be made after successful installation and commissioning duly certified by the concerned Head of Department. Balance 10% may be released against submission of Performance Bank Guarantee to the tune of 10% of the total purchase order value. PBG shall be issued from any nationalized bank/ commercial bank, validity which shall be warranty period plus 60 days drawn. No advance/mobilization support, is payable against supply of stores.

In the event of failure to deliver the stores beyond the specified date, liquidated damages @ 1% per month or part thereof in respect of the value of stores will be deducted, subject to a maximum of 5%; alternately the order will be cancelled and the undelivered stores purchased from elsewhere at the risk and expense of the vendor.

2. Warranty/Guarantee & On-site skill support: One Year onsite comprehensive OEM warranty from the date of successful installation and commissioning. Company has to guarantee to supply spares part up to 5 Years.

3. Earnest Money Deposit (EMD): An amount of **Rs. 40,000 (Rupees Forty Thousands only)** in the form of Demand Draft drawn in favour of “Indian Institute of Technology Kharagpur”, **payable at Kharagpur or Bank Guarantee as per format at Annexure VI.** E.M.D. should be enclosed separately in an envelope and stapled with the Technical Bid document superscribing EMD. The validity of the EMD should be 6 (six) months from the date of issue. Any bid without EMD will be summarily rejected. No interest is payable on EMD. EMD will be refunded to the unsuccessful bidder, finalization of the tender process. **The EMD of vendor awarded with the contract to be treated as part of security deposit towards Performance Guarantee. No interest is payable on Security Deposit.** Security Deposit shall be forfeited if the selected vendor after award of contract fails to execute the same.

4. Tender Fee: No tender fees

5. IIT Kharagpur will give exemption for submission of tender fee and EMD who are registered with MSME, NSIC or start-ups as recognised by DIPP as per revised rule 170 of GFR – 2017 only. However proper and valid document in this regard must be submitted by the bidders in support of their claim.

6. Tender fee and EMD should be kept in separate covers and place in technical bid cover.

7. Delivery of Stores: The store items are to be supplied within 90 days from the date of receipt of the Purchase Order.

8. Price:

- a. PRICE may be quoted either in INR or in foreign currency.
- b. Where tenderer intends to quote in Indian Rupees (INR), the price should be quoted "FOR IIT Kharagpur "basis. The price should be all inclusive.
- c. Indian institute of Technology Kharagpur is a public Funded Academic & Research institute under the minister of Human Resource Development and is eligible for GST @5% vide Notification No.47/2017 dated:14.11.2017 and 10/2018- Integrated Tax (Rate) dated:25.01.2018 by the Ministry of Finance, Department of Revenue. Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder.
- d. Where tenderer intends to quote in foreign currency FCA/FOB source port price by Air/Sea to be quoted. In case of comparison between FOR IIT Kharagpur (quoted in INR) and FOB/FCA price (quoted in foreign currency) 20% will be added on FOB/FCA price after conversion to INR.
- e. Tenderer, who are Indian Agents of OEMs, should furnish a clear declaration as follows: We declare that I am/we are Accredited Agents of the suppliers aboard.
- f. Foreign bidders to disclose the name and address of agent and representative in India.
- g. IIT Kharagpur is registered DSIR, Govt. of India and eligible for exemption for payment of Customs Duties in Terms of Government of India Notification No.51/96-Customs dated 23.07.96. Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder.
- h. Agency Commission, if any will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances.
- i. The unit prices should be for the same unit as indicated in the Schedule to tender enquiry and not for any other unit.
- j. Discount, if any, should be indicated separately/prominently.
- k. Offers should normally be on fixed and firm price basis. Any clause making price variation will not be acceptable.

9. **Bid:** Technical Bid and Price Bid should be submitted in two separate sealed envelopes quoting reference number on the top of the envelope. **EMD should be enclosed with the Technical Bid documents, in separate sealed envelopes, stapled with the packet containing Technical Bid documents.**
10. **Acceptance of Tender:** The Authority of IIT Kharagpur does not bind itself to accept the lowest priced bid and reserves the right to reject any or the entire tender bids received without assigning any reason thereof.
11. The addendum/corrigendum if any shall be published on Institute's **Website i.e. www.iitkgp.ac.in and on CPP Portal.**
12. **Extra Features:** If the bidder provides any other extra features on the Hardware or Software which are not mentioned in the tender product specifications, then that shall be highlighted in clear terms, with documentary evidence/literature.
13. **Compliance List:** The proposal should be properly indexed and a compliance list against the technical specifications should be provided.
14. **Service:** Response to ensure quality of services, the deputed Engineer from the OEM/Vendor shall have a minimum of 2 years of experience in the relevant field and must be in the payroll of the OEM/Vendor.
15. **Installation and Commissioning:** Free of cost at FMD laboratory of Department of Physics, IIT, Kharagpur. The supplier must ensure timely installation of Experimental test setup with necessary support to the indenters, as per details and lists to be made available by the Stores & Purchase Section or the indenting Departments/Centres/Schools.
16. **Period of Validity:** Bids shall remain valid for acceptance for a period of 120 days from the date of opening of the price bid.
17. The benefit of any downward price revision (revision on account of budget/financial policy, tax revision, EPZ etc.) is to be given to IIT Kharagpur by the selected OEM/vendor.
18. Past Performance of the Vendors will be judged at the time of Technical Evaluation.
19. The Institute does not bind itself to offer any explanation to those bidders whose technical bids have not been found acceptable by the Technical Evaluation Committee of the Institute.
20. Bidders should enclose the following documents:
 - a. Certificate of Registration / Trade License
 - b. Copy of mandatory test reports, national testing/reliability and endurance test reports etc., certified or conducted at the manufacturing site, granted by the bureaus/quality control departments/national testing laboratories.
 - c. Performa Price Bid (without mentioning the price rate) may be attached with technical bids
 - d. Port or place of Shipment and country of origin: Should be mentioned in the quotation.

- e. Purchase order to be placed on: Should be mentioned in the quotation with full address, email address, phone number.

21. The bids (technical and price bids) once submitted shall be the property of the Institute and shall not be returned to the vendor in future.

22. Tenderer or his/her authorized representative (with proper authorization letter for attending opening of technical bids and also for opening of price bids) may choose to be present at the time of opening of Technical Bids/Price Bids.

IMPORTANT

- I. Director may accept or reject any or all the bids in part or in full without assigning any reason and does not bind himself to accept the lowest bid. The Institute at its discretion may change the quantity/upgrade the criteria/drop any item or part thereof at any time before placing the Purchase Order.
- II. A bid submitted with false information will not only be rejected but also the OEM/vendor will be debarred from participation in future tendering process.
- III. In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.
- IV. For any query pertaining to this bid document, correspondence is to be addressed to the End user

Prof. Achintya Dhar,
Department of Physics,
Indian Institute of Technology Kharagpur- 721302, West Bengal,
India
[Ph:+91-03222-283830] Email: - [**adhar@phy.iitkgp.ac.in**](mailto:adhar@phy.iitkgp.ac.in)
- V. In case the due date for opening tender happens to be a holiday, the same will be opened on the next working day. The timings will however remain unchanged. Please Note that the Institute remains closed on Saturday & Sunday.
- VI. The Bidders are requested to submit the bids after issue of clarifications only considering the changes made if any. Bidders are totally responsible for incorporating/complying the changes/amendments issued if any, in their bid.

INSTRUCTIONS & SPECIAL CONDITIONS

1. **GENERAL:** Tenderer, who is Indian Agents of OEMs, should furnish a clear declaration as follows: We declare that I am/we are Accredited Agents of the suppliers aboard. DGS&D enlistment certificate needs to be attached (applicable only for the Indian Agents).
2. **DEVIATION FROM SPECIFICATIONS:** It is in the interest of the tenderer to study the specifications in the tender schedule thoroughly before quoting so that, if the tenderer makes any deviations, the same are prominently brought out in the body of the tender. If you need to add any optional items to your system in order to meet our specifications, you are requested to quote for the total including the option required to suit our requirements. Otherwise, your tender will not be considered at all.
4. **PERFORMANCE BANK GUARANTEE:** On behalf of the Principal, Indian Agent must be able to provide Performance Bank Guarantee of the amount equivalent to the 10% of the cost of equipment from any Nationalized Bank. The Performance Bank Guarantee is required for the entire period of Warranty. Performance Bank Guarantee must remain valid for a period sixty days beyond the expiry of the Warranty Period. Bid security will be refunded back on submission of performance Security.
5. **GUARANTEE:** The tenderer has to declare that the goods sold to the buyer under this contract shall be of the best quality and workmanship and shall be strictly in accordance with the specifications.
6. **JURISDICTION:** All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued i.e. Jurisdiction of KOLKATA HIGH COURT. Acceptance to this effect is also necessary at the time of opening of Technical Bid.
7. **ACKNOWLEDGMENT:** It is hereby acknowledged that we have gone through all the points listed under “Instructions & Special Conditions” outlined above, and those in the accompanying note on “Important Conditions”, and we agree to abide by them under the penalty of permanent disqualification for Tender participation and for related penal actions for non-abidance of the conditions.

Eligibility Criteria / TECHNICAL BID

S. No	Description	Submitted (Yes / No)
1	Registration Certificate	
2	PAN and GST Certificates	
3	Status of the Tenderer (attach documents, if registered company/ partnership /proprietorship)	
4	Whether OEM/representing foreign principle (attach copy of certificate/authorization)	
5	Details of key top official/authorized official with e -mail id and contact number	
6	Income Tax Returns of latest last one year	
7	Current list and address of clients (with email-ids) where One similar material/ products has been supplied.	
8	Other documents like literature, catalogues etc.,(if any)	

NOTE:

- 1. Attach all relevant documents in the same serial order as above, properly indexed, duly signed and to be submitted in the TECHNICAL BID.**

Signature and seal of the Bidder

DECLARATION

1. I, -----Son /Daughter of Shri -----
-----Proprietor/Partner/CEO/MD/Director/Authorized
Signatory of M/s.-----am competent to sign
this declaration and execute this tender document.
2. Tender ref no: _____ dt:_____ . I have carefully
read and understood all the terms and conditions of the tender and hereby convey
my acceptance of the same.
3. The information/ documents furnished along with the above application are true
and authentic to the best of my knowledge and belief.
4. I/we am/are well aware of the fact that furnishing of any false information/
fabricated document would lead to rejection of my tender at any stage besides
liabilities towards prosecution under appropriate law.
5. Each page of the tender document and papers submitted by my Company is
authenticated, sealed and signed, and I take full responsibility for the entire
documents submitted.
6. I/we hereby confirm and declare that I/we am/are not blacklisted /De-registered /
debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or
any other agency for which we have Executed/ Undertaken the works/ Services.

Signature of the Authorized Person

Date: -----

Full Name: -----

Place: -----

Company Seal: -----

ANNEXURE - VI

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas(thereinafter called the “tenderer”) has submitted their offer dated for the supply of (Here in after called the “tender”) against the purchaser’s tender Notice No.
KNOW ALL MEN by these presents that WE of having our registered office at are bound unto(hereinafter called the “Purchaser”) in the sum of for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank thisDay of 20

THE CONDITIONS OF THIS OBLIGATION ARE

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:
 - (a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - (b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer
Seal, name & address of the Bank and address of the Branch