

**टाटा मूलभूत अनुसंधान संस्थान हैदराबाद /**  
**TATA INSTITUTE OF FUNDAMENTAL RESEARCH HYDERABAD**  
प्लॉट नं. ३६/पी, गोपनपल्ली ग्राम, सेरिलिंगमपल्ली मंडल, रंगा रेड्डी जिला, हैदराबाद - ५०० १०७, तेलंगाना.  
Plot No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District,  
Hyderabad - 500 107, Telangana, India.

टेलीफोन /Telephone: +91-40-2020 3020  
वेबसाइट /Website: www.tifrh.res.in

ई-मेल /Email: purchasegroup@tifrh.res.in  
तिथि /Date: 26-07-2024

निम्नलिखित मदों के लिए निविदा सह निविदा दस्तावेज (दो भाग वैश्विक निविदा) आमंत्रित करने की सूचना:  
Notice Inviting Tender cum Tender Document (Two Part Global Tender) for the following items:

**Supply, Installation, and Commissioning of Electron Microscope  
for TIFR Hyderabad.**

As per technical specifications in Annexure A.

निविदा संख्या / Tender No.	TIFR/PD/GT/CA24-03/24-25/M/03
प्रकाशन की तिथि / Date of Publishing	26-07-2024
प्री-बिड मीटिंग की तिथि / Pre-Bid Meeting Date	01-08-2024 at 11.00 Hrs. (Through ZOOM- Zoom link details please visit our website <a href="https://www.tifrh.res.in/tender/">https://www.tifrh.res.in/tender/</a> / Direct Visit at TIFR, Hyderabad premises)
निविदा शुल्क / Tender Fees	Rs. 00 (USD 00)
ईएमडी / EMD (Earnest Money Deposit)	Rs. 22,00,000.00 (USD 26,310)
अनुमानित मूल्य / Estimated Cost (Estimated cost up to TIFR, Hyderabad premises inclusive of all applicable charges, taxes, duties etc.)	Rs. 11,00,00,000.00
बोली जमा करने की अंतिम तिथि / Last Date for Submission of Bid	27-08-2024 upto 13.00 Hrs.
बोलियों के प्रारंभ होने की तिथि (भाग ए) / Date of Opening Bids (Part A)	27-08-2024 at 15.00 Hrs.

निविदा को बंद लिफाफे में जामा करना जरूरी है। लिफाफे के ऊपर निविदा संख्या नियत तिथि का उल्लेख स्पष्ट रूप से होना चाहिए / Tender should be submitted in sealed enveloped super scribed with the Tender No., Due Date in Bold Letters.

अवधक विवरणों, विनिर्देश, शर्तें आदि के लिए कृपया हमारी वेबसाइट देखें। For more information, specifications, terms and conditions etc., please visit our website: <https://www.tifrh.res.in/tender/>

प्री-बिड मीटिंग ऑनलाइन के माध्यम से आयोजित की जाएगी। बिडरों से अनुरोध है कि वे टीआईएफआर हैदराबाद वेबसाइट निविदा पृष्ठ को प्री-बिड मीटिंग जूम लिंक के लिए देखें। बिडर प्री-बिड मीटिंग टीआईएफआर हैदराबाद परिसर में भी निर्धारित तिथि और समय पर शामिल हो सकते हैं। / Pre- Bid meeting will be conducted through online. Bidders are requested to refer TIFR Hyderabad website tender page for pre-bid meeting zoom link. Bidder may also join the meeting on scheduled date and time at TIFR, Hyderabad premises.

प्रशासनिक अवधकारी / ADMINISTRATIVE OFFICER  
(क्रय अनुभाग) / (PURCHASE SECTION)  
टीआईएफआर हैदराबाद / TIFR HYDERABAD

**ANNEXURE - A**

**Technical Specifications for Supply, Installation, and Commissioning of  
Electron microscope for TIFR Hyderabad. (QTY- 1 No.)**

Item	Specifications
General system requirements	<ul style="list-style-type: none"><li>• Field Emission Scanning Electron Microscope (FE-SEM)</li><li>• Focused Ion Beam (FIB)</li><li>• Gas Injection System (GIS)</li><li>• Nano Manipulator</li><li>• Capability for advanced TEM lamella preparation, 3D Tomography and nanofabrication.</li><li>• Support investigations of a large variety of samples including conductive, non-conductive, magnetic and biological samples.</li><li>• Integrated plasma cleaner.</li><li>• Should allow fully computer-controlled operation.</li><li>• Should allow on-site upgradation to cater to sample characterization at cryogenic temperatures.</li><li>• Backup power supply unit to safely switch off the system in the case of longer power interruptions.</li></ul>
<b>1</b>	<b>Field Emission Scanning Electron Microscope</b>
1.1	Resolution <ul style="list-style-type: none"><li>• In high vacuum (SE) (<math>\leq 0.7</math> nm at 15kV)</li><li>• In high Vacuum (SE) (<math>\leq 1.4</math> nm at 1 kV)</li><li>• Resolution should be achieved with the quoted current configuration.</li></ul>
1.2	Magnification: From x100 (or less) – x 1,000,000 (or more)
1.3	Acceleration voltage/Landing Energy $\leq 50$ V to $\geq 30$ kV continuously adjustable.
1.4	Probe current <ul style="list-style-type: none"><li>• 100 nA or better</li><li>• Current stability better than 0.2% per hour</li></ul>
1.5	Electron column and optics <ul style="list-style-type: none"><li>• Thermal Schottky type field emission system with single/ double condenser.</li><li>• Magnetic immersion or electrostatic objective lens to enable high resolution imaging of magnetic materials.</li><li>• Potential tube/beam booster which accelerates and decelerate the beam inside column to reduce aberrations.</li><li>• Beam deceleration to reduce interaction volume.</li></ul>
1.6	Detectors <ol style="list-style-type: none"><li>1. In-lens /In -column SE detector, that can work during milling to enable live imaging</li><li>2. Evarhart-Thornly Secondary Electron detector,</li></ol>

	<ol style="list-style-type: none"> <li>3. Retractable (pneumatic/motorized) directional and angle-selective back scattered electron detector.</li> <li>4. CCD camera for chamber viewing</li> <li>5. In column BSE detector.</li> <li>6. Motorized retractable STEM detector with BF,DF,HAADF (system should support mounting the prepared lamella to STEM holder through Nano manipulator without venting main chamber). Resolution of STEM detector should be atleast 0.6nm @ 30kV</li> <li>7. Dedicated ion column detector</li> </ol>
1.7	<p>Scan Modes</p> <p>Support various imaging modes to give ultra-high-resolution, increased depth of focus and wide field of view (for ease of navigation).</p>
<b>2</b>	<b>Focused Ion Beam</b>
2.1	<p>Source</p> <ul style="list-style-type: none"> <li>• Gallium metal ion source with source life of at least 1000 hours</li> <li>• <math>\geq 10</math> motorized apertures</li> <li>• Electrostatic beam blanker with integrated Faraday cup and ammeter for current measurement.</li> </ul>
2.2	<p>Resolution:</p> <ul style="list-style-type: none"> <li>• <math>\leq 3</math> nm at 30 kV.</li> <li>• Specify method used to determine resolution: statistical average or best-edge.</li> </ul>
2.3	<p>Ion Beam current:</p> <ul style="list-style-type: none"> <li>• Minimum current <math>\leq 1.5</math> pA and maximum current <math>\geq 100</math> nA with motorized aperture.</li> <li>• Provide method to optimize FIB conditions in order to get the best spot with a given preset by varying several parameters at once for best lithography results.</li> </ul>
2.4	Magnification: From $\leq 150$ X to $\geq 500,000$ X (continuously variable)
2.5	Accelerating Voltage: $\leq 500$ V to 30 kV, continuously variable
2.6	Field of view: 1mm or more @ 10kv
<b>3</b>	<p><b>Stage</b></p> <ul style="list-style-type: none"> <li>• 5-axis or more Eucentric motorized stage.</li> <li>• Suitable standard stubs (including multi stubs) for specimen fixing must be provided.</li> <li>• Stage movements: Horizontal (X, Y) = 100 mm or more, Vertical (Z) = 50 mm or more, Rotation R=360° continuous, tilt (T) = -4° to 70° or better.</li> <li>• Must keep same field of view during tilt &amp; rotation for all sample heights/Z values.</li> <li>• Load capacity <math>\geq 500</math>g in all axes.</li> <li>• All stage movements must be controllable by computer and joystick.</li> </ul>

4	<p><b>Gas injection system</b></p> <p>Single gas injection system with platinum or tungsten precursor.</p>
5	<p><b>Nano manipulator</b></p> <ul style="list-style-type: none"> <li>• In situ micromanipulator for transmission electron microscopy (TEM) lamella preparation with computer control, without operator intervention. Pneumatic insertion and retraction</li> <li>• 4 or more axes (X,Y,Z),R motorized movement should be available in the manipulator</li> <li>• Should have high precision, stability for easy preparation of ultra-thin TEM samples.</li> <li>• Provide information on drift, vibration and repeatability.</li> </ul>
6	<p><b>Nanopatterning system</b></p> <ul style="list-style-type: none"> <li>• Ability to import/read CAD designs and perform lithography as defined in the design file.</li> </ul>
7	<p><b>Chamber</b></p> <ul style="list-style-type: none"> <li>• Dimensions: Inner diameter <math>\geq 300</math> mm; Height <math>\geq 250</math> mm</li> <li>• Provision for 20 accessory ports or more to support installation of detectors and future upgradation.</li> <li>• Must be designed to facilitate quick change of samples.</li> <li>• Must be designed to support addition of static EBSD in future (simultaneous milling &amp; EBSD should be possible).</li> </ul>
8	<p><b>Vacuum system</b></p> <ul style="list-style-type: none"> <li>• Fully automated microprocessor controlled vacuum system comprising of two Ion Getter Pumps (one each for electron and ion column), turbo-Molecular Pump (TMP) backed by scroll pump, pneumatic valves.</li> <li>• High vacuum in the chamber (<math>10^{-6}</math> mbar or better).</li> <li>• Column vacuum for electron and ion beam should be <math>10^{-8}</math> mbar or better.</li> <li>• Appropriate gauge must be provided for pressure measurement.</li> <li>• All pumps must be oil-free.</li> </ul>
9	<p><b>Vibration isolation</b></p> <ul style="list-style-type: none"> <li>• System should have efficient vibration isolation.</li> </ul>
10	<p><b>Computer and user interface</b></p> <ul style="list-style-type: none"> <li>• Latest state of the art computer with USB ports and Ethernet ports for data transfer and net connectivity with latest Windows operating system and at least 32" ultra-wide monitor, 2TB HDD 16GB RAM or more, keyboard and mouse.</li> <li>• SW Control Panel with multifunction for the control and adjustment of frequently used SEM parameters.</li> <li>• Track ball for adjustment of frequently used parameters.</li> </ul>

11	<p><b>Image acquisition</b></p> <ul style="list-style-type: none"> <li>• Imaging and processing shall be optimized for the field emission electron column microscopy.</li> <li>• Image frame size: Selectable up to pixel density of 8K x 8K or better for live single frame image.</li> <li>• Provision for auto brightness, auto contrast, autofocus and auto stigmator.</li> <li>• Provision for frame averaging up to at least 250 frames.</li> <li>• Provision for Line averaging up to at least 250 lines.</li> <li>• Provision for combination of pixel and frame averaging.</li> <li>• Provision for combination of pixel and line averaging.</li> <li>• Provision for post – processing options for the images</li> <li>• Macro-Editor with access of 250 or more instrument control functions.</li> </ul>
12	<p><b>Software:</b></p> <ul style="list-style-type: none"> <li>• Tool for image post-processing operations such as image extraction, image rotation, grayscale conversion, infobar addition, etc. Advanced image processing functionalities should be accessible and divided into sections, such as brightness/contrast adjustment, structure detection, color models adjustment, geometric transformation, sharpen/blur adjustment, noise reduction, image combining and infobar manipulation.</li> <li>• Presets option to store and recall specific SEM operating parameters and setups from the preset panel, such as column alignments, beam current, brightness and contrast settings, landing energy, field of view, working distance and stage coordinates.</li> <li>• Positioner option to navigate to a region of interest with the help of a positioning template. The template should support either an image from a camera, light or (other) electron microscope, or a schematic such as a drawing. SEM images acquired with other.</li> <li>• Automated software for TEM lamella preparation.</li> <li>• Provide 3D visualization of stage movement.</li> <li>• Histogram display and LUT adjustment for the real-time visualization and adjustment of image grey values from a histogram.</li> <li>• Object area option for area measurement of selected regions of interest in the live SEM image. Up to 4 different areas should be segmented and the results should be exported for subsequent numerical analysis.</li> <li>• Switch-off timer function to automatically switch the microscope to power save or sleep mode, or even shut down, upon finalization of an unattended (e.g., overnight) automated imaging and analysis routine.</li> <li>• Ability to observe FIB processes in the SEM scanning window and scan or acquire images at pre-defined time intervals, which can be stored as individual images.</li> <li>• Patterning control software for FIB and FEBID to be active in the live FIB/SEM window. Multi-layered project management should allow storage of a single field project composed of multiple manual operations. It should include two layouts, Live and Expert, tailored to the user's expertise level.</li> </ul>

13	Warranty <ul style="list-style-type: none"> <li>• 2-years from the date of successful installation.</li> </ul>
14	Installation, system commissioning and training <ul style="list-style-type: none"> <li>• On-site training for users</li> </ul>
15	Installations in India Minimum 3 installation of similar configuration in India should be available in the past 5 years. Please mention details.
16	Bidder should be original equipment manufacturer (OEM) or authorized representative of OEM.
17	Optional items to be quoted separately: <ul style="list-style-type: none"> <li>(i) AMC for 3 years after warranty period of 2 years.</li> </ul>

**NOTE:**

**\* The bidder should ensure to submit the following along with Technical Bid (Part I)**

1. The bidder should attach the point-by-point technical specification provided in the tender in a tabulation format and fill the technical compliance (with additional remarks if any) along with the Technical Bid.
2. Bid Security / EMD (Earnest Money Deposit) as per Tender.
3. Audited Annual Turnover Certified by CA - Attachment of Annexure - B
4. Supplier Purchase Order details with copy document along with the bid Attachment of Annexure - C.
5. Undertaking by the bidder as per Clause 12 of tender terms and conditions in letter head duly signed and stamped.
6. Undertaking for unconditional acceptance of tenders all terms and condition in letter head duly signed and stamped.

**\* Price Bid/Finance Bid (Part II) - As per Annexure – D.**

**TATA INSTITUTE OF FUNDAMENTAL RESEARCH  
HYDERABAD**

**Plot No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District.  
Hyderabad - 500 107, Telangana, India.**

**(PURCHASE SECTION)**

1. **PART “A” (Technical Bid) consisting of Technical Bid with Commercial Terms and PART “B” (Financial Bid) consisting of only Price** shall be submitted in **separate** sealed envelopes duly superscribed with the tender enquiry number, and the due date in bold letters, addressed to the Administrative Officer, Tata Institute of Fundamental Research, Hyderabad, Plot No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District. Hyderabad-500 107, Telangana, India. The envelopes should be clearly marked on top as either PART “A” or PART “B”.

The two sealed covers should be further put in a master cover superscribed with the Tender Enquiry No., Due Date in bold letters, addressed to the Purchase Officer, Tata Institute of Fundamental Research, Hyderabad, Plot No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District. Hyderabad-500 107, Telangana, India. The sealed master envelop has to be delivered by hand/courier at the security Gate Office of TIFR Hyderabad on or before 13.00 hrs. on the due date specified. The technical bid will be opened at 15.00 hrs. on the due date at Purchase Section, TIFR, Hyderabad. Tenders submitted after 13.00 hrs. on due date will not be considered.

**Note: All future corrigendum/addendum will be published in CPPP/TIFR Hyderabad**

**All prospective bidders are requested to visit our website regularly for any such updates/Corrigendum.**

**Pre- Bid meeting will be conducted through online. Bidders are requested to refer TIFR Hyderabad website tender page for pre-bid meeting zoom link. Bidder may also join the meeting on scheduled date and time at TIFR Hyderabad premises.**

2. **In case the PART “A” and Part “B” bids are not sealed in separate envelopes the tender will be rejected.**
3. The technical bid should not contain any indication of the price. The bidder should take special care not to mention anything related to pricing and costing aspect of whatsoever nature. The technical bid should include/contain only technical specifications, technical literature, drawing, quantity, manufacturing and delivery schedule, mode and terms of payment, mode of dispatch, the quantum and percentage of statutory levies payable by the purchaser as extra and all related commercial terms and conditions for the supply and for the services like erection and commissioning to be rendered by the tenderer. The details of the validity of the tender should also be indicated along with the commercial details.
4. After scrutiny of Technical Bids, Financial bids of only those bidders who are shortlisted on technical basis will be opened at on later date. The opening date, time and venue will be intimated to the technically successful bidder.



5. **All the bidders/contractors should provide Company Authorization Letter duly signed and stamped by Competent Authority to participate in the tender related meetings at TIFR Hyderabad.**

6. **Tender Document Fee:**

Tender fee for Rs. 00/- (USD 00)

7. **Bid Security / EMD (Earnest Money Deposit):**

Earnest Money Deposit (EMD) for Rs. 22,00,000.00 (USD 26,310) in the form of D.D. in favour of "Tata Institute of Fundamental Research", payable at Hyderabad to be enclosed along with the technical Bid (Part - A).

The Bid Security may be accepted in the form of Bank Guarantee from any of the Commercial Banks (or) Fixed Deposit Receipt (FDR) (or) Banker's Cheque from any of the Commercial Banks (or) Insurance Surety Bonds.

The Bid security should remain valid for a period of 45 days beyond the final bid validity period.

EMD shall be interest free and it will be refunded to the unsuccessful bidder without any interest. EMD will be forfeited if the bidder withdraws or amend impairs or derogates from the tender in any respect. **The technical bid received without payment of EMD/ documents for exemption of EMD shall be summarily rejected.**

8. The Micro and Small Enterprises/Startups suppliers / bidders whose firms are registered with Ministry of MSME /DPIIT and having a valid certificate for claiming exemption as per privilege rules of Government of India are exempted from paying Tender Fee and EMD (Earnest Money Deposit).

9.

9.1 The invitation for bids is open to Original Manufactures (OEM)/Authorized Dealers/Authorized Distributors/Subsidiary Indian Company of the OEM/Indian Agent on behalf of the Foreign Manufacturer or Principals of the tendered equipment. The bidder must be legal entity having a Permanent Account Number (PAN), Certificate of Incorporation and valid GST Registration Certificate is to be submitted.

9.2 When a firm sends quotation for an item manufactured by some different company, the firm is also required to attach its quotation, the manufacturer's authorization certificate.

9.3 Indian Agent cannot represent two different foreign principles for the same item in one tender.

9.4 Equipment's must be of the most recent series/models incorporating the latest improvements in design.

9.5 That the Bidder will assume total responsibility for fault free operation of equipment, application software, if any, and maintenance during the warranty period and provide necessary maintenance services after warranty period if required.

9.6 Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure , etc.

9.7 Any additional bid participation criteria/eligibility conditions etc. mentioned in the Technical Specifications sheet will also form part of the Qualification Requirements along with those mentioned in this.

9.8 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this invitation of Bids.

10. Bidders who have not accepted the job/order awarded to them or withdrawn from the tender process OR whose EMD/Security deposit has been forfeited in the past, their bids will not be considered and treated as ineligible / disqualified.

11. Micro and Small Enterprises (MSEs):

Micro and Small Enterprises (MSE) must, along with their offer, provide proof of their being registered as MSE (indicating the terminal validity date of their registration) with any agency mentioned in the notification of the Ministry of Micro, Small and Medium Enterprises (Ministry of MSME).

The Micro and Small Enterprises (MSE) are exempted from payment of earnest money and tender fees subject to furnishing of relevant valid certificate for claiming exemption as per privilege rules of Government of India. Public procurement Policy (PPP) for MSEs Order, 2012 is meant for procurement of only goods produced and services rendered by MSEs. However, Traders, Distributors, Sole agents, work contracts are excluded from the purview of the PPP for MSE Order 2012 as per Ministry of MSME.

The Micro and Small Enterprises (MSE) bidder should submit valid UDYAM Registration certificate by Ministry of Micro Small and Medium Enterprises (MSME). The Micro and Small Enterprises (MSE) bidders who fail to submit valid UDYAM Registration certificate shall not be able to avail the benefits available to MSEs as contained in Public Procurement Policy for MSEs Order 2012 issued by MSME and further applicable Notification / Rule amended from time to time.

12. Requirement from Bidders: Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority as per order issued by the Government of India (Order No. F.No.6/18/2019-PPD dated 23rd July, 2020 and further applicable Notification / Rule amended from time to time).

"Bidder" means any person or firm or company, including any member of consortium or joint venture (that is an association of several persons, or firms or companies), every artificial

juridical person not falling in any of the descriptions of bidders stated herein before, including any agency branch or office controlled by such person, participating in a procurement process.

Necessary certificate/undertaking to be submitted.

13. Quotations must be valid for a period of 180 days from the date of opening the bid prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the Purchaser as non-responsive.
14. Tenders containing correction, overwriting will not be considered. Late or delayed/Unsolicited quotations/offers shall not be considered at all. These will be returned to the firms as it is. Post tender revisions/corrections shall also not be considered.
15. Tenderer should sign on all the pages of the technical bid and the price bid.
16. All future corrigendum will be published in TIFR Hyderabad website only / CPPP and no separate advertisement will be released for the same.

All prospective bidders are requested to visit our website regularly for any such updates / Corrigendum. The Purchaser reserves the right to reject the bids if the bids are submitted without taking into account these amendments/clarifications. In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

17. For Indigenous Items: Offer should be on FOR basis and mentioned separately using different table format showing all the applicable taxes/Duties like GST, Freight & Transportation charges and installation charges etc.
18. The price quoted for Import item must be on following basis:
  - a. Ex-Work/factory duly packed airworthy/seaworthy and of international standard
  - b. FOB/FCA
  - c. CIF Hyderabad, Airport Port (all-inclusive i.e. Cost of Goods, Packing, Insurance, Inland transportation, freight etc.)

For local item /supply, offer should be on FOR basis (i.e. total landed cost for delivery at TIFR Hyderabad).

The dimension of the item (viz. H, W, L, weight etc.) shall be specifically stated and also mention whether the mode of shipping the item is Airworthiness / Seaworthiness or both. Accordingly the mode of shipment will be decided by TIFR Hyderabad.

**Price must be quoted strictly in the Price Bid Format attached herewith as "Part -B" (Financial Bid).**

19. Packing:

19.1 The Supplier shall provide packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit

and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

19.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any and in any subsequent instructions ordered by the Purchaser.

19.3 Packing Instructions: Each package will be marked on three sides with proper paint/indelible ink, the following:

- (i) Item Nomenclature
- (ii) Order/Contract No.
- (iii) Country of Origin of Goods
- (iv) Supplier's Name and Address
- (v) Packing list reference number

## 20. Insurance:

20.1 The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

20.2 For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "Warehouse to warehouse" ( Final destinations) on " All Risks" The Insurance shall be valid for a period of not less three months after installation and commissioning. However, in case of orders placed on EX-Works/FOB/FCA basis, the purchaser shall arrange insurance.

## 21. Delivery and Documents:

21.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the order within the period. The details of shipping and/or other documents to be furnished by the supplier are specified in 21.2.

### 21.2 Delivery period.

The delivery is to be strictly made as per the delivery schedule stated in the Purchase Order.

The following documents are to be forwarded earlier to TIFR Hyderabad through email to [purchasergroup@tifrh.res.in](mailto:purchasergroup@tifrh.res.in) prior to 48 hours before dispatch of material.

- i) Supplier Invoice showing Purchase Order Number, goods' description, quantity, unit price, Total amount.
- ii) Packing List
- iii) Airway Bill/ Acknowledgement of receipt of goods from the consignee(s) by the Transport with item wise weight, unit of measurement, No of package, package size/Dimension
- iv) Insurance Certificate if applicable.

- v) Manufacturer's / Supplier's warranty certificate.
- vi) Inspection Certificate issued by the nominated inspection agency, if any, and Certificate of Origin.
- vii) Country of Origin Certificate. (if applicable)
- viii) Product Catalogue/Brochure.

22. The Institute shall be under no obligation to accept the lowest or any other tender received in response to this tender notice and shall be entitled to reject any tender without assigning any reason whatsoever.

23. Order Acceptance: The successful bidder should submit acceptance of Purchase Order immediately (within 15 days) from the date of issue of the Purchase Order failing which it shall be presumed that the vendor is not interested.

The Bidder should submitted the order acknowledgement, (details for opening L/C and documents if applicable) and documents if any to purchase section within 15 days from the date of issue of purchase order.

For Letter of Credit (L/C) payment, the Letter of Credit (L/C) will be opened as per purchase order terms and conditions only. The supplier should ensure to deliver and complete the installation as per purchase order terms and conditions within Letter of Credit (L/C) validity period. In case of any delay in supply or installation or submission of required documents by the supplier for Letter of Credit (L/C) payment, any applicable charges to be borne by the supplier only. The Letter of Credit (L/C) amendment charges if any due to delay of the supplier to be borne by the supplier only.

The Supplier should submit the invoice and packing list before dispatch of the material for confirmation of TIFR Hyderabad.

Any discrepancy like delay in supply/ short supply/delay in installation etc., TIFR Hyderabad has right not to process the payment in case of any such discrepancy.

24. **Performance Security:** The Successful bidder should deposit @ 5% of Purchase Order value as Performance Security. The Performance Security should be in the form of Demand Draft in favour of "Tata Institute of Fundamental Research" payable at Hyderabad from any of the Commercial Banks (or) Bank Guarantee from any of the Commercial Banks (or) Fixed Deposit Receipt (FDR) (or) Insurance Surety Bonds. The Performance Security @ 5% should be valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty period. . In case Performance Security @ 5% is not provided, then 95% payment only would be released and balance after 60 days beyond the date of completion of all contractual obligations of the supplier including warranty period. Vendor should clearly mention their acceptance to this effect in their quote.

25. **Payment Terms for Import Items:** 100% irrevocable Letter of Credit (L/C) will be opened. 80% payment shall be made through irrevocable Letter of Credit (L/C) against submission of clear and complete shipping documents and balance 20% of the amount shall be released through irrevocable Letter of credit (L/C) after successful installation, acceptance of the equipment certified by TIFR Hyderabad and on submission of "Performance Security" for an amount equivalent to 5% of the Purchase Order Value.
26. **Payment Terms for Indigenous Items:** 100% payment shall be released after receipt of complete material as per purchase order in a single lot, successful installation and acceptance of the equipment certified by TIFR Hyderabad and on submission of "Performance Security" for an amount equivalent to 5% of the Purchase Order Value.
27. Partial shipment for foreign bids / Partial delivery of material for full INR bids will not be accepted by TIFR Hyderabad.
28. Pre Inspection Report: The successful bidder should submit the Pre Inspection Report / Manufacturer's Test Certificate with data sheet to TIFR Hyderabad before dispatch of the material at no extra cost to the purchaser. (If required by TIFR Hyderabad).
29. Repair / replacement if required any during the warranty period, necessary customs clearance charges / customs duty charges, freight charges for sending back the repair material to supplier and import freight charges of replacement should be borne by the supplier.
30. For Import cases: No Agency commission will be paid as per Govt. of India rules.
31. All bank charges outside India will be to supplier's account only.
32. Taxes: TIFR Hyderabad is a Public Funded Research Institute. The exemption of Customs Duty under the notification No. 51/96 dated 23.07.1996 and amended time to time will be applicable.
- GST with effect from 01.07.2017 and amended time to time will be applicable. The applicable TDS / other charges if any as per GST rule will be deducted as per new GST regime.
- TIFR Hyderabad GST NO: 36AAATT3951F2ZG.
- Deduction of Indian Income Tax Deduction at Source: The Deduction of Indian Income Tax Deduction at source (TDS) will be deducted as per IT Act. The taxes at the time of actual utilization of service etc. will be deducted if applicable any.
- Supplier shall be entirely responsible for all taxes, duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the purchaser. However, GST in respect of the transaction between the Purchaser and the Supplier shall be payable as agreed, if so stipulated in the order.
33. **Delivery Period:** Within 9 months from the date of release of Purchase Order.
34. **Installation Period:** The Installation should be completed within 2 months from the date of receipt of the material at TIFR Hyderabad.

35. Conversion to Single Currency: To facilitate evaluation and comparison, the Purchaser will convert all bid prices payable to Indian Rupees established by any bank in India as notified in the Newspapers/banks website on the date of Price/Finance Bid Opening.
36. Evaluation & Comparison of Bids:
- 36.1 For the bids qualifying for the technical evaluation which have been found to be responsive the evaluation & comparison shall be made as under:
- (i) Indigenous Offers: The final landed cost of purchase after all discounts, freight, forwarding, insurance (warehouse to warehouse), custom clearing charges taxes etc. shall be the basis of evaluation.
- (ii) Imported Offers:  
The CIP/CIF price shall be the basis of evaluation (warehouse to warehouse basis)
- (iii) Imported Vs. Indigenous Offers:  
The final landed cost (warehouse to warehouse) of purchase taking into account, freight, forwarding, insurance, taxes etc. (CIF/CIP with custom duty, customs clearance charges, Bank/LC charges, transportation, delivery up to the site of installation at TIFR Hyderabad as per available records with TIFR Hyderabad for imported goods) shall be the basis of evaluation.
- 36.2 Conditional tenders/discounts etc. shall not be accepted. Rates quoted without attached conditions (viz. Discount shaving linkages to quantity, payment terms etc.) will only be considered for evaluation purpose. Thus conditional discounted rates linked to quantities and prompt/advance payment etc., will be ignored for determining inter-se position. The Purchaser however reserves the right to use the discounted rate/rates considered workable and appropriate for counter offer to the successful tenderers.
37. Contacting the Purchaser: Any attempt by any Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the bid.
38. Purchaser's Right to Vary Quantities at Time of Award: The Purchaser reserves the right at the time of contract award to increase or decrease the quantity of goods and services originally specified in the schedule of Requirements without any change in unit price or other terms and conditions.
39. Purchaser's Right to Accept Any Bid and to Reject Any or All Bids.
- 39.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract without there by incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.

39.2 Evidence regarding credibility of stable performance and maintenance service capability must be provided. The purchaser reserves the right to make judgment on this and reject bids that, in the purchaser's view, do not carry sufficient credibility for performance and/or service.

40. Training:

40.1 The Supplier is required to train designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.

40.2 The training shall be initially carried out during installation & commissioning for operating and maintaining the system. The specific training on application shall also to be imparted by the supplier. The duration of such training need to be finalized with the end user of the equipment. The supplier has to provide complete training at site for operation (including trouble shooting) of the instrument.

40.3 In case any supplier is not willing to impart such training, the bid shall be treated as non- responsive.

41. Bidders, please provide the PAN No., Bank Details, email ID, Contact person details, GSTNo etc.

42. The Supplier shall arrange to ship the ordered materials within the mutually agreed delivery period mentioned in the order unless extended with/without penalty. Please mention the Delivery Period Clearly in the Bid, however effort to be taken to deliver the materials at the earliest.

In case of delay in supply on part of the supplier, a penalty @0.5% per week of order value will be charged for delayed period subject to a maximum of 10% order value.

If the delay in the shipment of the ordered materials attributable to the supplier exceeds agreed time period from the date of original agreed upon date of shipment and extended with/without penalty, the TIFR Hyderabad shall have the right to cancel the contract / purchase order and recover the liquidated damages from other dues of the party or by legal means. It will also affect the other/future business dealings with such suppliers.

The same rate of penalty shall be applicable for late installation of the equipment / instrument also.

43. Warranty :

The supplier warrants that the Goods supplied under this contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials, unless provided otherwise in the contract. The supplier further warrants that all Goods supplied under this contract shall have no defect arising from manufacturing, design, materials or workmanship (except when the design and /or materials is required by the Purchaser's Specification) or from any act or omission of the supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.



This warranty shall remain valid (As stated in technical specifications/standard warranty) after the Goods or any portion thereof as the case maybe, have been delivered, installed & commissioned and accepted at the final destination indicated in the contract.

Warranty period shall be (As stated in technical specifications/standard warranty) from date of successful installation of equipment. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier's discretion shall apply making such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the contract at supplier own cost and expense and to carry out further performance tests.

If during the period of warranty any component or spare part is needed to be imported, all associated cost for replacement shall be borne by the supplier including the cost of customs duty, customs clearance charges etc.

44. **COMMENCEMENT OF WARRANTY PERIOD:** The warranty period of an item shall commence from the date of receipt of the item in good working condition and satisfactory installation /demonstration at the project site.
45. Specifications are basic essence of the product. It must be ensured that the offers must be strictly as per our specifications. At the same time it must be kept in mind that merely copying our specifications in the quotation shall not make the parties eligible for consideration of the quotation. A quotation has to be supported with the printed technical leaflet / literature of the quoted model of the item by the quoting party/manufacturer.
46. **Supplier Integrity:** The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
47. **Force Majeure :**

The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this Clause, "Force Majeure" means an event beyond the control of Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, act of God and freight embargoes.

48. **Termination for Default**

48.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- (i) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser.
- (ii) If the Supplier fails to perform any other obligation(s) under the Contract.
- (iii) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

48.2 For the purpose of this Clause:

- (i) "Corrupt practice" means the offering, giving, receiving or soliciting of gratification to influence the action of a public official(s) in the procurement process or in contract execution.
- (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the purchaser of the benefits of free and open competition;"

49. Resolution of Disputes:

The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the contract.

If, after thirty (30) days from commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a contractual dispute, either party may require that the dispute be referred for resolution to the formal mechanisms. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national (or) international forum, and national or international arbitration.

In case of Dispute or difference arising between the Purchaser and domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director TIFR Hyderabad and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

In the case of dispute between the purchaser and Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub clause above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

50. TIFR Hyderabad reserves the right to ask for or to provide any clarification, changes after the release of this tender. Any changes or clarifications provided by TIFR, Hyderabad may be checked at TIFR Hyderabad website: <https://www.tifrh.res.in/index.php/commercial-tenders>

**ADMINISTRATIVE OFFICER  
(PURCHASE SECTION)  
TIFR, HYDERABAD**

**Annexure - B**

**Audited Annual Turnover**

S.No.	Financial/ Accounting Year	Profit (Currency)	Loss (Currency)	Annual Turnover (Currency)
1.				
2.				
3.				

Authorized Signatory with Seal

**Note:**

**This Audited Annual Turnover (Annexure - B) for the last 3 years should be certified by Chartered Accountant (CA) as per the format given above duly signed and stamped by the CA on their letterhead.**

**Annexure – C**

**Supply Order details of Electron Microscope to other firms.**

<b>S.No.</b>	<b>Name of the company with full address</b>	<b>Name of the Project</b>	<b>Purchase Order No. &amp; Date</b>	<b>Brief Item Description with Model No.</b>	<b>Item Value in Currency</b>
	<b>Signature</b>				
	<b>Name</b>				
	<b>Designation</b>				
	<b>Name of the Company</b>				
	<b>Date</b>				
	<b>Seal of the Company</b>				

**NOTE: Please attach the copy documents / purchase order copy for the above mentioned details.**

**Financial Bid for Supply, Installation and  
Commissioning of Electron Microscope for TIFR  
Hyderabad  
(Part - B)**

**Annexure - D**

TIFR Hyderabad Enquiry No & Date: \_\_\_\_\_

Due date: \_\_\_\_\_

Bidder's Quotation Ref No. & Date: \_\_\_\_\_

Financial Bid (Bidders must quote their rates using this Format)

S.No.	Item Description as per tender	Make/Brand/ Type	Qty.	Rate per unit (Currency)	Basic Cost of main item (Currency)
A.	Supply, Installation and Commissioning of Electron Microscope for TIFR Hyderabad.  (Technical Specification as mentioned at Annexure A)				
B.	Ex-Works cost (Duly packed Airworthy/Seaworthy of international standard)				
C.	FOB /FCA Cost (Name of Airport_____)				
D.	CIP/CIF Cost (Up to Hyderabad Airport)(all inclusive i.e. Cost of Goods, Packing, Insurance warehouse to warehouse, Inland transportation, freight etc.)				

**Note:**

1. All the column should be appropriately filled and not left blank.
2. Do not include any other charges, taxes, duties etc. in the Basic Cost of the item. The other charges, taxes, duties etc. to be shown separately.
3. Any accessories, optional items should be shown separately using above format.
4. Use separate sheet for detail description, specification of the item, Price breakup for the item(s) mentioned in technical specification but prices should be quoted in the same format.
5. Prices quoted in Indian Currency for indigenous items should be on F.O.R. basis and mention separately using different table format showing all the applicable taxes/Duties like GST, Freight & Transportation charges and installation charges etc.  
Use separate sheet for detail description, specification of the item, Price breakup for the item(s) mentioned in technical specification but prices should be quoted in the same format.
6. TIFR Hyderabad being educational & research institute, discounted price shall be offered.

**Signature of the Bidder**

Name, Address contact no \_\_\_\_\_

& email id of the bidder/ \_\_\_\_\_

Company with company's Stamp or Seal \_\_\_\_\_ **Date:** \_\_\_\_\_

**Annexure - E**

**PERFORMANCE BANK GUARANTEE FORMAT**

*In consideration of the TATA INSTITUTE OF FUNDAMNETAL RESEARCH HYDERABAD (hereinafter called "THE TIFR") having agreed under the terms and conditions of Purchase Order No.....*

*dated.....made between. TIFR...and M/s \_\_\_\_\_ (hereinafter called "the said Contractor{s}"). For the Purchase Order..... (hereinafter called "the said Purchase Order") having agreed to production of an irrevocable bank Guarantee for Rs. .... From the contractor(S) for compliance of his obligations in accordance with the terms and conditions in the said Purchase Order , we ..... (indicate the name of the Bank) (hereinafter referred to as "the Bank") hereby undertake to pay to the TIFR an amount not exceeding Rs.(Rs..... only) on demand by the TIFR.*

*2. We ..... (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the TIFR stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). Any such demand made on the bank shall be However, our liability under this guarantee shall be restricted to an amount not exceeding Rs ..... (Rupees..... only).*

*3. We, the said bank, further undertake to pay to the TIFR any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.*

*4. We..... (indicate the name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during period that would taken for the performance of the said Purchase Order and that it shall continue to be enforced till all the dues of the TIFR under or by virtue of the Purchase Order have been fully paid and its claims satisfied or discharged or Purchase Officer ion behalf of the TIFR certified that the terms and conditions of the said Purchase Order have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.*

5. We..... (indicate the name of Bank) further agree with the TIFR that the TIFR shall have fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Purchase Order or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time to time any of the powers exercisable by the TIFR against the said Contractor(s) and to forbear or enforce any of the terms and condition s relating to the said Purchase Order and we shall not be relieved from or liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance , act of mission on the part of the TIFR or any indulgence by the TIFR to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6 .This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We,..... (Indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent to the TIFR in writing.

8. This guarantee shall be valid up to ..... unless extended on demand by TIFR. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees..... only) and unless a claim in writing is lodged with us within six months of the date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

**Signed and sealed**

Dated the ..... day of ..... for..... (indicate the name of Bank)