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 “Ultra-high Resolution Analytical Transmission Electron Microscope with Field Emission Source, EDS and aberration-corrected STEM facilities” for Central Research facility (CRF), IIT Kharagpur.

Interested parties may submit their sealed bids under Two-Bids system as per Technical Specifications given at Annexure I and General Terms & Conditions and other formats given at Annexure II to VII. Two covers (Technical Bid and Price Bid) are to be sealed and placed in one large Cover superscribed with tender reference number (Tender No. IIT/CRF/ENQ/2022-23/HRTEM-01, Dt: 27.06.2022) and submitted to "Chairperson, CRF, Attn. Rahul Mitra, Central Research Facility, Indian Institute of Technology, Kharagpur, P.O. Kharagpur Technology, PIN - 721 302 on or before 16-08-2022 (Extended) at 3.00 PM. The opening date and time of technical Bids will be intimated to suppliers by e-mail.

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. Date for opening price bids will be intimated later. 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.

Signature of Indenter / Prof. In Charge

Chairperson, Central Research Facility

To
1. Institute Website
2. CPP Portal
3. Department Notice Board
Signature and seal of Bidder

TIME EVENTS OF VARIOUS TENDER RELATED ACTIVITIES

Signature of the bidder along with seal
## TIME EVENTS OF VARIOUS TENDER RELATED ACTIVITIES

<table>
<thead>
<tr>
<th>Tender No. &amp; Date</th>
<th>IIT/CRF/ENQ/2022-23/HRTEM-01</th>
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<tbody>
<tr>
<td>Brief Description of Tender</td>
<td>Ultra-high Resolution Analytical Transmission Electron Microscope with Field Emission Source, EDS and aberration-corrected STEM</td>
</tr>
<tr>
<td>Estimated cost, if any</td>
<td>Rs. 20 crore</td>
</tr>
<tr>
<td>Tender fee (Non-refundable)</td>
<td>Rs. 10000/- (By way of Demand draft from any Nationalized Bank /Commercial Bank and paid in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur)</td>
</tr>
<tr>
<td>PBG</td>
<td>Rs. 40,00,000 (Rupees Forty lakh only) (By way of Demand draft from any Nationalized Bank /Commercial Bank and paid in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur)</td>
</tr>
<tr>
<td>Pre-bid Meeting, if any</td>
<td>Date: (15.07.2022) at (3.00 pm) at Committee Room, Central Research Facility, IIT Kharagpur.</td>
</tr>
<tr>
<td>Bid submission start date &amp; time</td>
<td>(28-06-2022)</td>
</tr>
<tr>
<td>Last date &amp; time for submission of sealed tenders/quotations</td>
<td>(16-08-2022) at (3 pm)</td>
</tr>
<tr>
<td>Pre-qualification &amp; Technical Bid opening date &amp; time</td>
<td>(16-08-2022) at (4 pm)</td>
</tr>
<tr>
<td>Two Bid System</td>
<td>Two bids – (i) Technical and (ii) Price bid, in two separate envelope- placed &amp; sealed in one envelope</td>
</tr>
<tr>
<td>Bid validity</td>
<td>120 days from the opening of Price Bid</td>
</tr>
<tr>
<td>Submission of bids (by speed post) (Addressed to)</td>
<td>Chairperson, Central Research Facility Kharagpur-721302, West Bengal (State)</td>
</tr>
<tr>
<td>Bid opening place</td>
<td>Central Research Facility, IIT Kharagpur, Kharagpur – 721302, West Bengal (State)</td>
</tr>
<tr>
<td>Any clarification</td>
<td>Telephone No: (03222) 283292 email ID: <a href="mailto:rahul@metal.iitkgp.ac.in">rahul@metal.iitkgp.ac.in</a></td>
</tr>
</tbody>
</table>

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**TECHNICAL SPECIFICATIONS**

Annexure-I

Signature of the bidder along with seal
## Procurement of Ultra-High Resolution Analytical Transmission Electron Microscope with Field Emission Source

(Enquiry No: IIT/CRF/ENQ/2022-23/HRTEM-01, Date: 15.06.2022)

The desired system should have electron source (Cold field emission gun) capable enough for the high-resolution imaging of all kinds of materials including metals and alloys, ores and minerals, soft and hard samples, polymers, 2D materials, ceramics, semiconductors, insulating, and magnetic samples. Suitable detectors for HAADF, BF, DF, ABF, ADF for STEM imaging mode, Energy Dispersive X-ray spectrometer (EDS), and EELS spectrometer detector should be included for the elemental/compositional analysis with both quantitative and qualitative mapping capability. The system should have all the necessary components, hardware, and software to meet the required specifications as given below. The detailed specifications are given below:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Required specifications for Ultra-High Resolution Analytical Transmission Electron Microscope with Field Emission Source</th>
</tr>
</thead>
</table>
| 1.      | Accelerating voltage           | (a) 200 kV or higher (Variable in steps or continuously). User changeable from 30 kV – 200 kV. Condenser should be aligned at least for three of the voltages such as 200, 120, 80 kV. 
          |                                                                                 | (b) The stability of the high-tension voltage is 2 ppm/min (or better).                                                                                                         |
| 2.      | Electron gun                   | Ultra-high-brightness cold field emission gun (Cold FEG) with energy resolution of <0.4 eV or better Brightness at 200kV: $8 \times 10^8$ A/(cm$^2$.srad) or better                              |
| 3.      | Probe Current                  | 0.5 nA @ 1 nm spot size or better at 200 kV                                                                                                                                 |
| 4.      | Possible types of operating modes | (a) The HRTEM should be fully digital microprocessor/PC controlled with following modes as standard: TEM (Bright field (BF) and dark field (DF)) and HRTEM, STEM mode, Nano –Probe, Annular Bright field, Annular Dark Field Imaging, High Angle Annular Dark Field Imaging (HAADF), Selected Area Electron Diffraction including Nano diffraction, Convergent Beam Electron Diffraction (using TEM/STEM modes), EDS using TEM/STEM modes, EDS spectral imaging and composition line scan in STEM mode.  
          |                                                                                 | (b) System should have capability of following analysis modes: STEM + EDS/EELS, STEM + Image recording, Cryo + EDS/EELS, Heating + EDS/EELS, EDS+EELS, wherever possible. Changes between various operating modes should be computer controlled.  
          |                                                                                 | (c) System should also be capable of studying sample using Cryo holder and heating holder.                                                                                    |
| 5.      | Resolution                     | (a) Point-to-point resolution: 0.23 nm or better for TEM and 0.16 nm or better for STEM without Probe Corrector  
          |                                                                                 | (b) STEM:78 pm or better @ 200 kV with Probe corrector.                                                                                                                      |

**Signature of the bidder along with seal**
|   | Magnification for imaging | HRTEM magnification: 1,000,000x or better  
STEM magnification: 150,00,000x or better for TEM |
|---|--------------------------|------------------------------------------------------------------------------------------------|
| 7. | Mandatory attachments | (a) Scanning transmission electron microscope (STEM) with HAADF detector, BF, DF, ABF and ADF  
(b) Solid state detector for X ray Energy Dispersive Spectroscopy (EDS) with a total active area of 100 mm² or more. |
| 8. | Camera Length for Diffraction | 80 mm to 1500 mm |
| 9. | Vacuum System | (a) Electron gun area, condenser lens and specimen area, projector lenses and camera system are pumped by a complete oil-free Vacuum pumping system. Vacuum surfaces and components in the vicinity of the electron beam do not degas, degrade or in any way become a source of sample contamination under electron or x-ray radiation.  
(b) A liquid nitrogen (LN₂) cold trap around the specimen along with the cold trap should be compatible with various detectors (EDS Detector) and specimen holders. An external reservoir and an LN₂ dewar for filling the reservoir must be included, if any operation mode demands.  
(c) Vacuum system should be able to maintain column of 10⁻⁷ torr (or better) and gun vacuum of 10⁻⁹ torr (or better). Additionally, water vapor and hydrocarbon partial pressures should be low enough to avoid any sample contamination.  
(d) The vacuum system has a complete fail-safe mechanism along with software-based continuous monitoring and display of pressure. |
| 10. | Lens System | System consisting of condenser lens, objective lens, diffraction, intermediate and projection lenses |
| 11. | Probe Corrector 200 kV | Atomic characterization  
(a) The microscope design should have a probe corrector.  
(b) Probe Corrector should give sub-Angstrom STEM imaging resolution from 30 kV to 200 kV. Control of the corrector should be embedded in the TEM software (including routines for aligning the corrector).  
(c) It should provide an order-of-magnitude improvement in optical stability of low- order aberrations for collecting meaningful data and also capable of correcting A5 or equivalent aberrations (resolution limitation) for all accelerating voltages.  
(d) The Corrector should be delivered with the fully automated correction of high- order aberrations.  
(e) Probe corrector alignment software makes probe corrector tuning easy, fast and fully automated up to and including 5th order or higher aberrations |
| 12. | Condenser System | (a) HRTEM should have suitable condenser system with indication of convergence angle and size of illuminated area for quantitative measure of electron dose and illumination conditions.  
(b) A spare set of condenser apertures should be supplied |
with suitable tool kit along with the system.

| 13. | Objective Lens | (a) The objective lens should be such that the use of various in-situ holders, as well as a large specimen-tilt, for analytical microscopy should be possible. The pole piece design should allow the specimen to remain at the eucentric position for all operating modes and is able to integrate the EDS system.  
(b) It is preferred to have a symmetrical objective lens design.  
(c) The system automatically must adjust focus step size with magnification. As the magnification increases, the focus step size must be automatically adjusted.  
(d) Suitable optical arrangements for optimum TEM dark field application work.  
(e) Field-free imaging in TEM Lorentz mode with 2 nm resolution for imaging magnetic specimens |
| 14. | STEM | (a) A complete STEM system unit (with retractable Bright Field (BF), Annular Bright Field (ABF), Annular Dark Field (ADF), High Angle Annular Dark Field (HAADF)).  
(b) STEM detector should be Solid State  
(c) Easier mechanical alignment of the BF/DF module  
(d) Better Signal to Noise: Single electron sensitivity at 1.25 nA (at 200kV) in HAADF.  
(e) Ability to acquire images- HAADF, ABF, ADF, BF, Back scattered electrons, simultaneously.  
(f) The control software includes capability to acquire automated tilt series images with dynamic focusing capability for 3D tomography.  
(g) The STEM system should be a high throughput system with multiple parallel imaging channels made available to acquire four or more images at the same time from different STEM detectors. |
| 15 | Types of Specimen Holders | (a) No. of standard single tilt low background holder: 01 No.  
(b) No. of double tilt low background holder for EDS analysis: 02 Nos.  
(c) Tomography holder: 01 No. (Optional)  
(d) Liquid cell holder: 01 No. (Optional)  
(e) Pico-indentation holder: 01 No. (Optional) |
| 16 | Functioning of Specimen Holders and Goniometer | (a) Specimen tilt: with motorized tilting ±30˚ or better with 3.0 mm grid  
(b) Specimen holder insertion must be through an automatic pre-pumped air lock allowing sample exchange even with high voltage and filament heating turned on.  
(c) Specimen stage must be a piezo enhanced computerized, 5-axes eucentric, goniometer (X, Y, Z, alpha, beta), side entry design with stage tilt range of ± 70 degrees for zone-axis alignment and tomography. All five |

Signature of the bidder along with seal
(d) The specimen stage must have a direct position measurement system that is free of backlash, orthogonal hysteresis, and run-on. The system must track and display X, Y, Z positions with a precision of up to 0.05 nm, and alpha and beta tilts with a precision of 0.5 degree or better.

(e) Stage drift under normal operating conditions should be 0.5 nm/min or less. There should be an option to store and recall multiple stage positions defined by the five translation and rotational motions.

(f) X and Y movements must maintain vertical and horizontal position on the viewing screen at all magnifications. The relative speed of stage movement must be selectable and remain constant at all magnifications. The maximum X and Y movement of the specimen stage must be 2 mm with fine adjustment step of 0.05 nm.

(g) The control software must be including an alpha wobbler with variable tilt range for fine adjustment of Z to the eucentric position.

17. EDS

(a) Make of EDS and its compatibility with rest of the system should be mentioned by the Bidder.

(b) The EDS must incorporate more than one silicon Drift detectors of total active area of 100 mm$^2$ or higher for light element sensitivity.

(c) The EDS detector solid angle should be $\geq 0.95$ steradians or better.

(d) The hardware and control software capabilities such as small pixel dwell time, automatic collection of element maps, auto-drift correction during acquisition and automatic X-ray detector protection mechanism must be available.

(e) X-ray detector must have an energy resolution less than or equal to 130 eV at Manganese K-alpha and 100,000 cps with capability to detect elements with atomic number $>5$ (i.e. from Boron to Uranium).

(f) EDS Resolution $\leq 130$ eV for Mn-K$\alpha$ and 100 kcps (output).

(g) Application software for X-ray spectra acquisition and analysis must include full qualitative and quantitative analysis and thin film matrix correction algorithms.

(h) Automatic acquisition of elemental maps for 3D tomography should be available with a tilt range of $\pm 70$ deg. (Optional considering its requirement if tomography holder is ordered for)

(i) Capability of auto protection in case of vacuum loss or high electron flux EDS calibration standards of Mn K$\alpha$ must be included.

(j) An offline copy of the EDS software is also included for data processing and training purposes.

(k) The system must include qualitative and quantitative elemental analysis, X-Ray mapping, capability for
<p>| | |</p>
<table>
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<td></td>
<td>spectrum analysis, digital control of the beam for composition profile, composition area mapping, peak-deconvolution, element to phase map and phase to element map, and drift correction facility.</td>
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<tr>
<td>18.</td>
<td><strong>Specimen Chamber</strong></td>
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<td>(a) Goniometer stage should accept variety of specimen holder including heating, cooling, and low background double tilt holder.</td>
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<td>(b) Goniometer should be motor-driven, eucentric, side entry type with Z-movement being fine-controlled.</td>
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<td>(c) A piezoelectric drive system for shifting of field view at high-resolution magnification with a drift-free / backlash-free control unit and a suitable drive-control power supply may be offered as optional feature.</td>
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<td>(d) Tilt angles should be ± 30° or more with motorized specimen tilting about two perpendicular axes for crystallographic analysis.</td>
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<td></td>
<td>(e) Maximum tilt for tomography application should be ± 70° or more.</td>
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<td>(f) The permissible tilt may vary with type of holder used.</td>
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<td>(g) X-Y movement: 1 mm, motor driven (manual or computer controlled with specimen position recall facility)</td>
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<td>(h) Z movement 0.2 mm, motor driven for specimen height adjustment.</td>
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<td></td>
<td>(i) Image fine shift: Electromagnetic shift mechanism for X-Y translation.</td>
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<td></td>
<td>(j) Facility for recording specific specimen translation position as reference point in the memory.</td>
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<td>19.</td>
<td><strong>Automation</strong></td>
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<td>It should be possible to align both electron gun and beam at selected acceleration voltages, save it in the computer, and recall that for automatic alignment while switching from one acceleration voltage to another. This should be possible for at least 3 selected acceleration voltages or more, such as 80 kV, 120 kV, and 200 kV.</td>
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<td>20.</td>
<td><strong>Imaging &amp; Data recording system</strong></td>
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<td>(a) High resolution Complementary metal-oxide semiconductor (CMOS) Camera of minimum 4k x 4k pixel (or better). CMOS sensor with built-in shutter. Full sensor read out speed should be ≥25 fps or faster at full resolution of 4k x 4k.</td>
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<td>(b) Bottom-mounted retractable camera.</td>
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<td>(c) The camera should be usable at 80-200/300 kV HT range.</td>
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<td>(d) The sensor active area should be ≥3600 mm² with 15 micrometer pixel size. Conversion efficiency greater than 30 counts per primary electron or more.</td>
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<td></td>
<td>(e) Separate computing device with display unit for capture, processing and display with latest software running on 64 bit. The software should include online (real time drift correction at 4k x 4k, and Live FFT for astigmatism correction) and offline data processing</td>
</tr>
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</table>

**Signature of the bidder along with seal**
features such as FFT and full support for real space (image mode) and reciprocal space (diffraction mode) calibrations. The camera should be supported by a separate computer of appropriate capacity, so that live video image acquisition and storage in hard-disk is possible.

(f) Recording modes should include both “image” and “video”. Ability to view “live” video of in-situ TEM experiments at resolution of better than 4k X 4k pixels at 25 frames per second (fps) to 512 X 512 pixels at ~300 fps, with usage of the In Situ upgrade option and with suitable high end server type PC configuration for supporting all the requirements.

(g) It should be possible to do in-line data processing with real time drift correction at 25 fps.

(h) Should have image processing and diffraction pattern analysis software (Compulsory), as well as tomography-3D imaging (Optional)

(i) 3-D reconstruction/tomography kit including necessary software (Optional).

(j) Upgradation of microscope software has to be supplied free of cost as when it is upgraded within 5 years of microscope supply.

(k) Fully EELS compatible & retractable.

(l) User-friendly software facility for astigmatism correction at high magnification for HRTEM imaging.

(m)Output images should be compatible with other commercial image analysis software On–line annotation for scale bar, magnification and TEM condition should be available. On-image facility for linear measurement as diffraction measurements for ring and spot containing pattern.

(n) The software should include online and offline data processing features like FFT and full support for real space (image mode) and reciprocal space (diffraction mode) calibrations (Diffpack or equivalent)

<p>| 20. Diffraction | (a) Selected area aperture (SAD) holder in the diffraction lens must be fully motorized, and computer controlled. (b) The instrument should be able to achieve a minimum spot size of 0.5 nm or smaller and should have sufficient camera length range for convergent beam Electron diffraction studies as well as SAD studies. (c) Maximum convergence angle (20 mrad or better) should be specified by the vendor and a higher value of the convergence angle is preferred. The maximum diffraction angle (20 mrad or better) should also be specified by the vendor. (d) Dark field imaging must be performed by tilting the beam using either X-Y or conical controls. Tilt parameters must be displayed on the main control screen. |</p>
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<tr>
<td>21.</td>
<td><strong>Cooling system</strong></td>
<td>Close circuit, automatic temperature and flow rate controlled closed circuit water cooling system. Proven brand to be specified.</td>
</tr>
</tbody>
</table>
| 22. | **3D Tomography** | (a) Facility for 3D tomography in TEM/STEM mode should be quoted, using a single tilt specimen holder.  
(b) Software supporting acquisition experiments using TEM and STEM modes should be supplied. Softwares (64 bit) for automatic acquisition and montage of images in TEM and STEM modes of operation, along with 3D reconstruction (GPU and non GPU version).  
(c) It should also be applicable to EDS and EELS to obtain 3D distribution of elements (Optional: if tomography holder and facility is ordered for). 3D visualization software should be included (Optional: if tomography holder and facility is ordered for) |
| 23. | **Anti-contamination Device** | Liquid nitrogen based anti-contamination device to suppress specimen contamination that may adversely affect high resolution imaging and chemical analysis |
| 24. | **Calibration standards** | Standard samples to check system calibration i.e., magnification and camera length should be supplied along with the system, including TEM Standard Au/any other standard sample for TEM resolution, Standard sample for magnification calibration and rotation calibration, STEM Standard Si 110 dumbbells for STEM resolution, Mn standard for EDS energy resolution |
| 25. | **Provision for future upgradability** | It should be possible to upgrade the system by addition of facilities like EELS and 3D Tomography in future. |
| 26. | **Tool kit** | Suitable and essential tool kit is to be supplied with the system for the required maintenance and upgradation. |
| 27. | **Spares and accessories** | (a) All essential spares should be included in the offer.  
(b) One additional FEG emitter should be quoted which will be used beyond the warranty period (1 No.) (Optional)  
(c) Any cylinders and regulators for gases (such as SF₆, Ar, and N₂) to be used with the instrument or accessories to be provided by the vendor.  
(d) The supplier should guarantee that all spares should be available for 10 years from the date of installation.  
(e) Vacuum Pick-up Tweezer for TEM grids.  
(f) Acid resistant High precision tweezer (10 Nos. each of straight and bent type).  
(g) High precision titanium tweezers (10 Nos.)  
(h) Anti-capillary tweezers (10 straight, 10 self-closing).  
(i) TEM grids (should have one shiny and one matte finish side, all are between 100 to 200 mesh (5000 Nos.), carbon coated holey grids (3000 Nos.), tomography grids (1000 Nos.) (Optional) |
| 28. | **Chiller and Compressor** | Suitable compressor and chiller (having 20 international users) for the main equipment should be supplied along with the TEM system. Close circuit, automatic temperature and flow rate controlled chiller |

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29. **Display and output**  
(a) All the accessories and ports should be of International standard and replaceable with components available in India.  
(b) Two larger than 24” high definition monitor(s) for HRTEM operation for split display of image recording/processing, and EDS analyses.  
(c) Latest compatible, branded high speed computer (i7 or higher) with pre- loaded licensed software for all operating parameters. Specify computer speed, processor, RAM (64 GB or higher), 10 TB HDD, and graphics card. All the computers for HRTEM must be imported /factory fitted and tested with preloaded softwares for operating these systems.  
(d) A separate PC (i7 or higher with 29’’ HD monitor, 64 GB RAM, 10 TB HDD or better) having all loaded software should be provided for offline data analysis and storage. 5 copies of software (or accessible to 5 offline users) should also be included for offline analysis.  
(e) Color LASER printer of reputed brand & DVD R-W drive, Optical mouses.  
(f) Working table required for commissioning and working of HRTEM must be supplied.  

30. **Software**  
(a) All softwares used to operate the instrument, acquire and process the data should be licensed and should be factory preloaded.  
(b) Include software that automates adjustment of focus, astigmatism, and misalignment.  
(c) Include a software for stage and optics control so that one can seamlessly stitch images together.  
(d) Include a software that facilitate acquiring HREM assays by automatically adjusting the critical imaging parameters of a TEM microscope focus, stigmation and beam tilt.  
(e) Include a diffraction analysis software package to automate the selection area of electron diffraction (SAED) patterns and high resolution lattice images of crystalline samples.  
(f) All software should preferably be from a single supplier for seamless performance.  
(g) Software for stimulation and magnetic property studies.  

31. **Safety Devices**  
The TEM should be equipped with self-diagnostic functions to detect problems like pneumatic pressure abnormality, cooling water temperature abnormality, reservoir tank pressure abnormality, etc.  

32. **Uninterrupted Power Supply (UPS)**  
On-line uninterrupted Power Supply (UPS) system should be supplied for HRTEM and Chiller. The UPS should be able to keep the TEM operational in case of sudden power cut or spike and support the complete TEM system with all accessories with full load for duration of 1.5 hour. There

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should be 5 year on-site comprehensive warranty for UPS, including onsite replacement warranty for batteries for 2 years from the date of installation. SMPS card to be present so that it can be monitored and controlled by the Administrator from remote location (Residence)

| 33. Pre-installation requirements | Pre-installation requirements such as room size, tolerable limits of electromagnetic field and vibration (mechanical), required power rating, utility requirements are to be stated clearly, and to be verified/surveyed by the supplier at the installation site. The Vendor should arrange to prepare a controlled environment with cancellation of electric and magnetic fields for smooth functioning of the HRTEM. It is the supplier’s responsibility to clearly provide details of the above mentioned requirements before 120 days of delivery of the equipment. |
| 34. Environmental requirements | Necessary environmental requirements, i.e., temperature, humidity, vibration isolation, stray magnetic field, electrical connections/earthing requirement, etc during the operation of Cryo-Analytical HRTEM should be specified clearly. |
| 35. Installation and commissioning | The manufacturer should undertake to install and commission the equipment and all attachments accessories and also demonstrate the performance guaranteed as per specifications at site. |
| 36. Warranty, Training and Service Support | (a) On-site training should be provided to the operators. Necessary documents, operational & system manual in the form of CD and hardcopy must be supplied with the system.  
(b) The breakdown period will not be counted as warranty period and must be extended after the expiry of the initial warranty.  
(c) 3-year comprehensive on-site warranty should be offered for entire offered configuration (including all parts of the consignment) (after successful commissioning of the equipment).  
(d) Service response time, turn-around time & up-time of the equipment should be clearly specified. Service response time must be less than 72 hours.  
(e) The Cryo-analytical HRTEM must have provision for on-line diagnosis of faults.  
(f) Suitable service facility for computer hardware or software related problems should also be provided.  
(g) Upgradation of the software has to be supplied free of cost as and when it is upgraded within 5 years of microscope supply.  
(h) The spare parts should be available up to 10 years from the date of installation. |
(i) Bidders must provide warranty certificate from the OEM for the entire warranty period (3 years for the basic equipment as well as all additional attachments manufactured by the bidder or its Principal along with parts obtained from third parties; 5 years’ warranty for the UPS), not only for the basic equipment, but also the parts acquired from other third party suppliers.

(j) The manufacturing date of every component of the entire consignment should be after the date of the purchase order.

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<thead>
<tr>
<th>37.</th>
<th>Compliance Statement</th>
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<tbody>
<tr>
<td>(a)</td>
<td>The supplier must submit a table indicating the compliance of the features of the model of the equipment being quoted with those given in the indent.</td>
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<tr>
<td>(b)</td>
<td>Features not matching – must be clearly indicated.</td>
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<tr>
<td>(c)</td>
<td>Additional features and features in the quoted equipment which are better than those in the indent – may be clearly explained.</td>
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<tr>
<td>(d)</td>
<td>The supplier must submit technical brochures and proper application notes adequately explaining and confirming the availability of the features in the model of the equipment being quoted.</td>
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<th>38.</th>
<th>Required Documents along with technical specifications</th>
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<tr>
<td>(a)</td>
<td>The supplier must provide a comprehensive list of at least five (5 Nos.) users of HRTEM (with Cold FEG / Schottky Field Emission type (either or both, Cold FEG HRTEM user is more desirable) in India.</td>
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<tr>
<td>(b)</td>
<td>They should also submit the name(s) of the service engineer(s) employed by them who is/are competent to service the equipment along with their locations in India.</td>
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</table>

<table>
<thead>
<tr>
<th>39</th>
<th>Price with buy-back</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>FCA and FOR IIT Kharagpur (DDP). The price must be quoted for both, i.e., FCA and DDP. For the IIT Kharagpur price, i.e., delivered duty paid (DDP), supplier has to deliver the consignment to IIT KGP, the freight forwarding and insurance for the whole system is for the factory warehouse to IIT KGP. The offer price should be inclusive of customs clearing charges, insurance charges, and local transportation up to IIT KGP. IIT KGP will only provide necessary documents for clearing (duty exemption certificate, authorization, etc.), road permit/entry tax, custom duty as per actual.</td>
</tr>
<tr>
<td>(b)</td>
<td>Price break up for individual items should be provided in the price-bid. The prices of all optional items should be quoted separately.</td>
</tr>
<tr>
<td>(c)</td>
<td>The JEM 2100F HRTEM column including the gun chamber with Shottkey Field Emission Gun, lenses, as well as the TEM associated electronics is available for buy-back, for which the buy-back price should be quoted.</td>
</tr>
<tr>
<td>(d)</td>
<td>Price for additional warranty beyond 3 years should be quoted.</td>
</tr>
</tbody>
</table>
### Additional terms and conditions

(a) The Institute may opt for single order or split-order depending on the configuration offered by the vendor. For items manufactured by third party, the vendor should provide authorization to quote from the original manufacturer. In case of split order, the vendor offering the HRTEM has to take complete responsibility of arranging the installation and commissioning of all parts.

(b) The firm has to guarantee technical support for the entire system and supply of spares for a minimum period of 10 years from the date of installation.

(c) Provision for on-line remote diagnosis of faults.

(d) Firm must have proven knowledge and expertise in standard system installation, commissioning and providing training. Supporting documents evidencing the above must be enclosed. The firm must have at least 5 installations of Cold or Schottky Field Emission HRTEMs within India for desired experience of maintenance.

(e) Free training on different applications to selected users.

(f) Complaints regarding functioning of the instrument should be responded to within 48 hours. Maintenance and service must be provided within 7 working days of the complaint.

(g) Date of manufacturing of the equipment should be after the placement of order.

(h) Compliance of all listed specifications as well as terms and conditions should be indicated by the vendors in tabular form in separate sheets.

(i) Optional Item: The supplier may provide a highly skilled full time person with suitable expertise for providing technical assistance and routine maintenance of the proposed HRTEM for a period of 3-years from the date of installation of the system in the institute. The institute shall have no responsibility for his/her service liabilities. The expenses for such service may be quoted separately.

---

### GENERAL TERMS AND CONDITIONS

1. **Last Date of Submission of Sealed Bids (both technical and price bids, separately in two covers and placed, sealed in one envelope): 16-08-2022 up to 3.00 P.M.**

2. **The date and time of the Technical bids opening:** 16.08.2022 at 4:00PM.

3. **Payment Terms & Performance Bank Guarantee (PBG):** 90% payment will be made on submission of shipping documents and balance 10% payment will be made on successful 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 (Chairperson, CRF). Balance 10% may be released against submission of Performance Bank Guarantee to the tune of 3% 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 **Signature of the bidder along with seal**
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.

4. **Warranty/Guarantee & On-site skill support**: Three years (03) onsite comprehensive OEM warranty from the date of successful installation and commissioning. The firm has to guarantee supply of spares for a minimum period of 10 years. The breakdown period will not be counted as warranty period and must be extended after the expiry of the initial warranty.

5. **Earnest Money Deposit (EMD)**: An amount of Rs. 40,00,000 (Rupees Forty lakh 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 V. 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.

6. **Tender Fee**: Rs. 10,000/- (Ten thousand only) (By way of demand draft from any Nationalized Bank /Commercial Bank and paid in favour of “Indian Institute of Technology Kharagpur”, payable at Kharagpur).

7. **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.

8. **Delivery of Stores**: The store items are to be supplied within 180 days from the date of receipt of the Purchase Order.

9. **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. Also provide price ”FOR IIT Kharagpur” by including the necessary insurances etc. for door delivery (DDP).
   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. DGS&D enlistment certificate needs to be attached (applicable only for the Indian Agents).
   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.

**Signature of the bidder along with seal**
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.

11. **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.**

12. **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.

13. The addendum/corrigendum if any shall be published on Institute’s **Website i.e. www.iitkgp.ac.in and on CPP Portal.**

14. **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.

15. **Compliance List:** The proposal should be properly indexed and a compliance list against the technical specifications should be provided.

16. **Service:** Response to ensure quality of services, the deputed Engineer from the OEM/Vendor shall have a minimum of 3 years of experience in the relevant field and must be in the payroll of the OEM/Vendor.

17. **Installation and Commissioning:** Free of cost at CRF Center, 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.

18. **Period of Validity:** Bids shall remain valid for acceptance for a period of 120 days from the date of opening of the price bid.

19. 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.

20. Past Performance of the Vendors will be judged at the time of Technical Evaluation.

21. 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.

22. Bidders should enclose the following documents:
   a. Certificate of Registration / Trade License

**Signature of the bidder along with seal**
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. Proforma Price Bid (without mentioning the price rate) may be attached with technical bids.

d. Port or place of Shipment: 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.

23. All tenders are to be handed over in a sealed box in the Office of Central Research Facility, IIT Kharagpur, Kharagpur, West Bengal, 721302, India. 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. For speed post, the Postal Address is “

To,
Chairperson, CRF
Attn: Prof Rahul Mitra
Central research facility,
IIT Kharagpur, West Bengal 721302, INDIA

24. Opening of Price Bids: The Price Bid(s) of only those vendor(s) who are found technically qualified will be opened and the same will be opened before the technically qualified vendor(s). The date for opening of price bids will be notified separately by email.

25. 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. 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. Date for opening price bids will be intimated later.

III. 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.

IV. In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.

V. For any query pertaining to this bid document, correspondence is to be addressed to the End user

Prof Rahul Mitra,
Central Research Facility
Indian Institute of Technology Kharagpur- 721302,
West Bengal, India
[Phone: +91-03222-282480]

Signature of the bidder along with seal
VI. 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.

VII. 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.

Annexure -II

INSTRUCTIONS & SPECIAL CONDITIONS

1. GENERAL: 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. 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.

3. TENDERERS SHALL SUBMIT ALONG WITH THEIR TENDER: (i) Complete address and tele links for contact persons of principals and Indian agent offices dealing with this purchase. (ii) Name and full address of the OEM’s Banker and their swift code. (iii) Port of shipment and Country of origin is to be provided for each item. (iv) Purchase order to be placed on: Should be mentioned in the quotation with full address.

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 3% of the cost of equipment from any Nationalized/Commercial 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.

Signature of the bidder along with seal
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.

8. Interested vendors must be able to supply adequate spares and consumable during three years of comprehensive warranty. Vendor should also ensure trouble free service and performance for another five years beyond five years Comprehensive Warranty Period with adequate spares and accessories.

9. **A. Compliance under Rule 144 (xi) of the General Financial Rules (GFRs) 2017**
   
   I. As per Ministry of Finance, Department of Expenditure, Public Procurement Division Order (Public Procurement No.1) issued from file No.6/18/2019-PPD dated 23rd July, 2020 & the Order issued from time to time regarding Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs) 2017, it is directed that 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 i.e. the Department for Promotion of Industry and Internal Trade (DPIIT).

   II. "Bidder" (including the term ‘tenderer’, ‘consultant’ or ‘service provider’ in certain contexts) means any person or firm or company, including any member of a 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 hereinbefore, including any agency, branch or office controlled by such person, participated in a procurement process.

   III. “Bidders from a country which shares a land border with India” for the purpose of this Order means:
   a) An entity incorporated, established or registered in such a country; or
   b) A subsidiary of an entity incorporated, established or registered in such a country; or
   c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
   d) An entity whose **beneficial owner** is situated in such a country; or
   e) An Indian (or other) agent of such an entity; or
   f) A natural person who is the citizen of such a country; or
   g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

   IV. The **beneficial owner** for the purpose of above will be as under: -

**Signature of the bidder along with seal**
1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercise control through other means.

Explanation-
   a) “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent of share or capital or profit of the company;
   b) “Control” shall include the right to appoint majority of the directors or to control the management of policy decisions including by virtue of their shareholding or management rights or shareholder's agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership

V. An agent is a person employed to do any act for another, or to represent another in dealings with third person.

I. For Works contracts, including Turnkey contracts, the successful bidder shall not be allowed to subcontract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

A certificate (duly filled & signed) shall be submitted by bidders in the tender documents regarding their compliance with the said order as per Annexure XI. If the certificate submitted by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.

B. Compliance under Rule 153 (iii) of the General Financial Rules (GFRs) 2017
It is mandatory for bidders to quote items having 20% or more local content. Refer revised Public Procurement (Preference to Make in India), Order 2017

Signature of the bidder along with seal
P-45021/2/2017-B. E-II dated 16.09.2020 and the order issued from time to time by Department for Promotion of Industry & Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India. (Submit duly filled Annexure XII for the same).

Also, as per DPIIT, Ministry of Commerce and Industry OM vide no: P-45021/102/2019-BE-II-Part (1) (E-50310) dated 04.03.2021, bidders can’t claim themselves as Class-I local supplier / Class-II local supplier by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.

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**Annexure - III**

**ELIGIBILITY CRITERIA / TECHNICAL BID**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>Submitted (Yes / No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Registration Certificate</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>PAN and GST Certificates</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Status of the Tenderer (attach documents, if registered company/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>partnership / propriety ship)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Whether OEM/representing foreign principle (attach copy of certificate/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>authorization)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Details of key top official/authorized official with e-mail id and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>contact number</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Income Tax Returns of latest last three years</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Average turnover of company in last three years should be of Rs. 20 crore</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>At least five numbers of client’s name and address where similar material/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>products has been supplied and installed successfully (attach Purchase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orders) and satisfactory certificates from the users.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Name and address of Vendor’s bankers and attach a Solvency Certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>from the Bank for a minimum amount of Rs. 20 crore</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Other documents like literature, catalogues etc.,(if any)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**

1. Attach all relevant documents in the same serial order as above, properly indexed, duly signed.

2. **This is to be submitted in a separate sealed envelope** super scribing “TECHNICAL BID”, Notice inviting Tender Reference no: 
   
   date: 
   
   and name of the bidder.

3. Price bid of that company/firm only will be opened which do technically qualify, for further consideration. **Attach all relevant documents in the same serial order as above, properly indexed, duly signed and sealed.**

**Signature of the bidder along with seal**
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: ______________ date: ________. 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: ___________

---

Signature of the bidder along with seal
MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas ..........................................................(thereinafter called the “tenderer”) has submitted their offer dated .............................................................. for the supply of .......................................................... (hereinafter 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 this .................Day 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
FINANCIAL BID

Tender ref no: ____________________________ date: ____________ Tender for Supply, Installation, Testing and Commissioning of ________ equipment with ___ Years of warranty.

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit Price without taxes (in Rs.)</th>
<th>Taxes Rs</th>
<th>Unit Price with Taxes (in Rs.)</th>
<th>Total Amount (in Rs.)</th>
</tr>
</thead>
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</tr>
</tbody>
</table>

1. Supply and Installation, Testing and Commissioning of XXXXXXXX Equipment with XXXXX years of warranty

\[ A \times (B+C) = E \]

In words: Rupees ____________________________________________________________________________

1. In case of discrepancies between words and figures, the bid which is least of the two versions will be confirmed.
2. 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.

Signature of the bidder along with seal

ANNEXURE – VII
(For Goods/Service Contracts)

Signature of the bidder along with seal
CERTIFICATE

I/we have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I/we hereby certify that this bidder is not from such a country and is eligible to be considered.

OR (whichever is applicable)

I/we have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I/we hereby certify that this bidder is from ____________ (Name of Country) and has been registered with the Competent Authority. I/we also certify that this bidder fulfils all the requirements in this regard and is eligible to be considered.

(Copy/ evidence of valid registration by the Competent Authority is to be attached with the bid document)

Signature of the Authorized Person

Date: ________________________________

Full Name: _____________________________

Place: ________________________________

Company Seal: ________________________

Signature of the bidder along with seal
ANNEXURE – VIII

(For Works Contracts, including Turnkey contracts)

(On Company / firm’s Letterhead)

Tender No:………………………………… Dated:……………………………………

CERTIFICATE

I/we have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries and hereby certify that this bidder is not from such a country and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

OR (whichever is applicable)

I/we have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/we hereby certify that this bidder is from _________ (Name of Country) and has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I/we also certify that this bidder fulfils all the requirements in this regard and is eligible to be considered.

(Copy/ evidence of valid registration by the Competent Authority is to be attached with the bid document)

Signature of the Authorized Person

Date: ________________________________

Full Name: ____________________________

Place: ________________________________

Company Seal: ________________________
DECLARATION OF LOCAL CONTENT

(To be given on Company Letter Head – For tender value upto Rs.10 Crores)
(To be given by Statutory Auditor/Cost Auditor/ Practising Cost Accountant/ Practising Chartered Accountant for tender value in excess of Rs.10 Crores)

Tender No:………………………………… Dated:…………………………

To
The Chairman
Departmental Purchase Committee
Department of …………………..
IIT Kharagpur
PIN: 721302

Subject: Declaration of Local Content-reg.

1. Country of origin of Goods being offered:……………………………………………………
2. We hereby declare that items offered has .............% local content.
   (Clarification for Local content calculation as per OM No: P-45021/102/2019-BE-II-Part (1) (E-50310), dated 4th March 2021 of Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India.)
3. The details of the location(s) at which local value addition is made are given in the below table:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the item</th>
<th>Location(s) of local value addition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

"Local Content" means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

Important:
“False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules 2017 for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules 2017 along with such other actions as may be permissible under law.”

Date:

Yours faithfully,

(Signature of the bidder, with Official Seal)

Signature of the bidder along with seal
## Checklist for Enclosures
*(Bidder Should fill up YES or NO and page no without fail)*

<table>
<thead>
<tr>
<th>S.No</th>
<th>Bid Enclosures</th>
<th>Yes/No</th>
<th>Pg. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical Bid <em>(Envelope – A)</em> contains the following documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Registration Certificate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>PAN and GST Certificates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Status of the Tenderer (attach documents, if registered company/ partnership /propriety ship)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Whether OEM/representing foreign principle (attach copy of certificate/authorization)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Details of key top official/authorized official with e-mail id and contact number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Income Tax Returns of latest last three years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Minimum turnover of company of last three years should be of Rs._______ crore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Current list and address of clients where <strong>three similar materials/products have been supplied</strong> <em>(attach Pos)</em> and satisfactory certificates from the users.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Name and address of Vendor’s bankers and attach a Solvency Certificate from the Bank for a minimum amount of Rs._______ crore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Other documents like literature, catalogues etc.,(if any)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Tender fee <em>(should be kept in one envelop cover and place technical bid)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>EMD <em>(Should be kept in one envelop cover and place in technical bid cover)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Financial Bid (Envelope – B)**

| 1   | Price Bid *(As per the format given at Annexure – VII)*                        |        |         |

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Note: All pages of the bid documents must be serially numbered and signed.

**Signature of the bidder along with seal**