



**INDIAN INSTITUTE OF TECHNOLOGY MADRAS**  
**Chennai 600 036**



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The Senior Manager (Project Purchase)

Date: 23.02.2024

Open Tender Reference No: GTE01/PRAD/2024/17/DBELECTMIC

GEM NAR ID: GEM/GARPTS/22022024/812BSRT3OG02

Due Date/Time: 25.03.2024 @ 9:00 AM

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, digitally signed online bids are invited in two bid system from Class-I & Class II and Non local suppliers, for the supply of: “**Dual-Beam Electron Microscope**” Conforming to the specifications given in **Annexure -A**.

Tender Documents may be downloaded from Central Public Procurement Portal <https://etenders.gov.in/e procure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <https://etenders.gov.in/e procure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at “**Help for Vendors**”. [Special Instructions to the Vendors / Bidders for the e-submission of the bids online through this eProcurement Portal”]

Bidders can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type ‘IIT’. Thereafter, click on “GO” button to view all IIT Madras tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://etenders.gov.in/e procure/app> as per the schedule attached.

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| 1) | <b>Pre-bid Meeting Details</b>  | : | If required will be intimated  |
| 2) | <b>ICSR Vendor Registration</b> | : | <p><b>Vendor registration:</b> Vendor registration with IC&amp;SR (IITM) is mandatory for bidders to participate in tenders.</p> <p><b>** For Vendor Registration &amp; Guidelines, Please follow the website:</b><br/> <a href="https://icandsr.iitm.ac.in/vendorportal">https://icandsr.iitm.ac.in/vendorportal</a>;<br/>           Helpdesk: <a href="mailto:vendorhelpdesk@icsrpis.iitm.ac.in">vendorhelpdesk@icsrpis.iitm.ac.in</a></p> |

**No manual bids will be accepted.** All tender documents including Technical and Financial bids should be submitted in the E-procurement portal.

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| <b>Last date for receipt of tender</b>      | : | <b>25.03.2024 @ 9:00 AM</b> |
| <b>Date &amp; time of opening of tender</b> | : | <b>26.03.2024 @ 9:00 AM</b> |

### **3. Instructions to the Bidder:**

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| A) | <b>Searching for tender documents</b> | : | <ul style="list-style-type: none"> <li>• There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.</li> <li>• Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective “<b>My Tender</b>” folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.</li> <li>• The bidder should make a note of the <b>unique Tender ID</b> assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.</li> </ul>   |
| B) | <b>Assistance to bidders</b>          | : | <ul style="list-style-type: none"> <li>• Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.</li> <li>• Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is [0120-4200462, 0120-4001002, 0120-4001005]</li> </ul>   |
| C) | <b>Enrollment Process to Bidders</b>  | : | <p><b><u>REGISTRATION</u></b></p> <ul style="list-style-type: none"> <li>• Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal <u>URL:https://etenders.gov.in/eprocure/app</u> by clicking on “Online Bidder Enrollment”. Enrollment on the CPP Portal is free of charge.</li> <li>• As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.</li> <li>• Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.</li> <li>• Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.)</li> <li>• Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.</li> <li>• Bidder then may log in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.</li> </ul> |

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|           |                            |   | <ul style="list-style-type: none"> <li>• Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <a href="https://etenders.gov.in/e procure/app">https://etenders.gov.in/e procure/app</a></li> <li>• Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <a href="https://etenders.gov.in/e procure/app">https://etenders.gov.in/e procure/app</a> under the “Information about DSC”.</li> </ul>  |
| <b>D)</b> | <b>Preparation of bids</b> | : | <ul style="list-style-type: none"> <li>• Bidder should take into account any corrigendum published on the tender document before submitting their bids.</li> <li>• Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.</li> <li>• Bidder, in advance, should prepare the bid documents to be submitted as indicated in the tender document / schedule and generally shall be in PDF / XLS formats as the case may be. Bid documents may be scanned with 100 dpi with black and white option.</li> <li>• To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GSTIN Details, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “<b>My Documents</b>” area available to them to upload such documents. These documents may be directly submitted from the “<b>My Documents</b>” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.</li> </ul> |
| <b>E)</b> | <b>Submission of bids</b>  | : | <ul style="list-style-type: none"> <li>• Bidder should log into the site well in advance for bid submission so that he/she can upload the bid in time i.e. on or before the bid submission date and time. Bidder will be responsible for any delay due to other issues.</li> <li>• The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.</li> <li>• Bidder has to select the bid security declaration. Otherwise, the tender will be summarily rejected.</li> <li>• A standard BOQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the detail with their respective financial quotes and other details (such as name of the bidder). If the BOQ file is found to be modified by the bidder, the bid will be rejected.</li> <li>• The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for</li> </ul>  |

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|    |                          | <p>submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.</p> <ul style="list-style-type: none"> <li>• The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues.</li> <li>• The uploaded tender documents become readable only after the tender opening by the authorized bid openers.</li> <li>• Upon the successful and timely submission of bids, the portal will give a successful bid submission message &amp; a bid summary will be displayed with the bid no. and the date &amp; time of submission of the bid with all other relevant details.</li> <li>• Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.</li> <li>• More information useful for submitting online bids on the CPP Portal may be obtained at: <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>.</li> <li>• All tender documents including pre-qualification bid, Technical Bid &amp; Financial Bid should be submitted separately in online CPP portal as per the specified format only. Right is reserved to ignore any tender which fails to comply with the above instructions. <b>No manual bid submission will be entertained.</b></li> </ul> |
| F) | Marking on Technical Bid | <ul style="list-style-type: none"> <li>• The bidder eligibility criteria, technical specification and supply of item for this tender is given in Annexure A.</li> <li>• The Bidders shall go through the specification and submit the technical bid.</li> <li>• The Technical bid should be submitted in the proforma as per Annexure-B in pdf format only through online (e-tender). No manual submission of bid will be entertained.</li> <li>• The technical bid should have a page-wise heading as “Technical Bid” and page no. in all pages with seal and signature of authorized signatory. The total no. of pages should be mentioned at the last page of the documents.</li> <li>• The technical bid should consist of bidder eligibility criteria details and all technical details along with catalogue/ pamphlet which will give a detailed description of product with technical data sheet so that technical compliance can be verified.</li> </ul>   |
| G) | Marking on Price Bid     | <ul style="list-style-type: none"> <li>• Financial bid (BoQ) should be submitted in the prescribed proforma format as per Annexure-C in xls format through e-tender only. No manual or other form of submission of Financial Bid will be entertained</li> </ul>  |

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| 4) | <p><b>Preparation of Tender:</b> The bidders should submit the bids in two bid system as detailed below.</p> <p><b>Bid I _Technical Bid</b></p> <p>The technical bid should consist of bidder eligibility criteria and technical specification compliance sheet as per Annexure-B.</p> <p><b>Bid II _Price Bid</b></p> <p>The price bid should be submitted in excel format (BoQ) as per the proforma (Annexure C) uploaded in the e-Tender web site. The Quoted price should be for supply and installation of the item and inclusive of all cost and statutory levies at IIT Madras.</p>  |
| 5) | <p><b>Price:</b></p> <ol style="list-style-type: none"> <li>a) The price should be quoted in net per unit (after breakup) and must include all packing, transit insurance and delivery charges to the <b>Department of Metallurgical and Materials Engineering</b>.</li> <li>b) The offer/bid should be exclusive of taxes and duties. The percentage of tax &amp; duties should be clearly indicated separately.</li> <li>c) In the case of import supply, the price should be quoted without custom duty. IIT Madras is eligible for concessional custom duty (not exceeding 5.5%) and the price should be quoted with detailed break up on <b>EX-WORKS and CIP</b> (<u>stating the Cost, Insurance, Freight separately and other charges in detail etc.</u>) and indicating the mode of shipment. IIT M - ICSR will provide all necessary documents for customs clearance of consignment including Customs Duty Exemption certificate etc.</li> <li>d) The rate quoted shall be all inclusive of all taxes and no extra payment will be made other than statutory revisions as per the terms and conditions stipulated in this contract document.</li> <li>e) The offer/bids should be submitted through online only in two bid system i.e. Technical Bid and Financial Bid separately.</li> </ol> |
| 6) | <p><b>Agency Commission:</b></p> <p>Agency commission, if any, will be paid to the Indian agents in rupees after receipt of the equipment and its satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in the tender document even in the case of 'Nil' commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent. The Foreign Principal should indicate the percentage of payment and it should be included in the basic price quoted originally (if any).</p>  |
| 7) | <p><b>Tenderer shall submit along with this tender:</b></p> <ol style="list-style-type: none"> <li>(i) Proof of having ISO or other equivalent certification given by appropriate authorities.</li> <li>(ii) Name and full address of the Banker and their swift code and PAN No. and GSTIN number.</li> <li>(iii) GST registration proof showing registration number, area of registration etc.</li> <li>(iv) All of your future correspondences including Invoices should bear the GST No. and Area Code.</li> </ol>  |
| 8) | <p><b>Terms of Delivery:</b></p> <p>Import Purchase – Responsibility of carriage of goods will be governed by Incoterms.</p> <p>Domestic Purchase –Supplier will be fully responsible for the safe carriage, Installation/Commissioning of goods up to the <b>Department of Metallurgical and Materials Engineering</b>, or named place as per PO, Insurance coverage will be in the scope of the supplier.</p> <p>The tenderer should indicate clearly the time required for delivery of the item (subject to the approval of the Exclusive Purchase Committee-IIT-Madras). In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.</p> <p>In the event of <b>delay or non-supply of materials/execution of Contract</b> beyond the date of</p>   |

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|     | delivery/completion of job. The penalty will be levied @1% per week of delay subject to a max of 10% of the value of purchase order and if the delay is more than accepted time frame by IIT M, the PO would be partially or fully cancelled and liquidated damages will be enforced accordingly.   |
| 9)  | <p><b>Period for which the offer will remain open:</b></p> <p>The Tender shall remain open for acceptance/validity till: 120 days from the date of opening of the tender. However, the day up to which the offer is to remain open being declared closed holiday for the Indian Institute of Technology Madras, the offer shall remain open for acceptance till the next working day.</p>   |
| 10) | <p><b>EMD:</b></p> <p>The EMD of <b>Rs.13,00,000</b> to be transferred to the account details mentioned in Annexure I and proof should be enclosed in the Technical Bid. Any offer not accompanied with the EMD shall be rejected summarily as non-responsive.</p> <p>The EMD of the unsuccessful bidders shall be returned within 30 days of the end of the bid validity period. The same shall be forfeited, if the tenderers withdraw their offer after the opening during the bid validity period. The Institute shall not be liable for payment of any interest on EMD.</p> <p>EMD is exempted for Micro and Small Enterprises (MSE) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) and Startups as recognized by Department of Industrial Policy &amp; Promotion (DIPP). (MSE/MSME/DIPP PROOF should be enclosed in the cover containing technical bid)</p>                                    |
| 11) | <p><b>Performance Security: -</b></p> <p>The successful bidder should submit Performance Security for an amount of <b>5%</b> of the basic invoice value of the contract/supply. The Performance Security may be furnished in the form of an Account Payee DD,FD Receipt in the name of “The Registrar, IIT Madras” from any scheduled commercial bank or Bank Guarantee from any scheduled commercial bank in India. The performance security should be furnished within 14 days from the date of the purchase order.</p> <p>Performance Security in the form of Bank Guarantee: - In case the successful bidder wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed directly to IIT Madras from the Bank.</p> <p>The Bank Guarantee should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including the warranty obligations.</p> |
| 12) | <p><b>Indian agent:</b> If an Indian agent is involved, the following documents must be enclosed.</p> <p>(i) Foreign Principal’s pro-forma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.</p> <p>(ii) A Copy of the agency agreement with the foreign principal and the precise relationship between them.</p> <p>(iii) For the same tender, either the OEM or the authorized dealer/service provider can only quote. But both of them cannot quote separately for the same tender.</p>  |
| 13) | The offers/bids should be sent only for an Item/Equipment of latest version that is available in the market and supplied to a number of customers. A list of customers in India with details must accompany the quotations. Quotations for a prototype machine will not be accepted   |
| 14) | Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid.   |
| 15) | Compliance or Confirmation report with reference to the specifications and other terms & conditions should also be obtained from the Principal/OEM.   |
| 16) | <p><b>Risk Purchase Clause</b></p> <p>In the event of failure of supply of the item/equipment within the stipulated delivery schedule,</p>  |

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|     | the purchaser has all the right to purchase the Item/Equipment from other sources on the total risk of the supplier under risk purchase clause.  |
| 17) | <p><b>Payment:</b></p> <p>(i) No Advance payment will be made. However, 90% Payment after supply and 10% after installation are agreed to wherever the installation is involved. In the case of import supplies, the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done)</p> <p>(ii) Advance Payment: No advance payment is generally admissible. In case a specific percentage of advance payment is required, the Vendor has to submit a Bank Guarantee from a scheduled commercial bank in India equivalent to the amount of advance payment.</p>  |
| 18) | <p><b>On-site Installation:</b></p> <p>The Equipment/Item or Machinery has to be installed or commissioned by the successful bidder within the number of days (as prescribed by PI) from the date of receipt of the item at the site of IIT Madras.</p>  |
| 19) | <p><b>Warranty/Guarantee:</b></p> <p>The offer should clearly specify the warranty or guarantee period for the machinery/equipment. Any extended warranty offered for the same has to be mentioned separately (For more details please refer our Technical Specifications).</p> <p><b>** Note: PO which involves Installation, Warranty/Guarantee shall be applicable from the date of Installation.</b></p>   |
| 20) | <p><b>Acceptance and Rejection:</b></p> <p>Failure to comply with any of the instructions stated in this document or offering unsatisfactory explanations for non-compliance will likely to lead to rejection of offers.</p> <p>I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.</p>  |
| 21) | <p><b>Debarment from Bidding:</b></p> <p>In case of breach of Terms &amp; Conditions, Bidder may be suspended from being eligible for bidding in any contract with the IIT Madras up to 2 Years [as per Rule 151(iii) of GFR] from the date of Tender.</p>   |
| 22) | <p><b>Disputes and Jurisdiction:</b></p> <p><b>Settlement of Disputes:</b> Any dispute, controversy or claim arising out of or in connection with this PO including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. If attempts for such amicable resolution fails or no decision is reached within 30 days whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the Project Coordinator of IITM shall nominate on arbitrator. The Dean IC&amp;SR will nominate the Presiding Arbitrator of the arbitral tribunal. The arbitration proceeding shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at IC&amp;SR IIT Madras, Chennai.</p> <p>a. <b>The Applicable Law:</b> The Purchase Order shall be construed, interpreted and governed by the Laws of India. Court at Chennai shall have exclusive jurisdiction subject to the arbitration clause.</p> <p>b. Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.</p> |

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| 23) | <p><b>Force Majeure:</b> 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.</p> <p>For purposes of this Clause, "Force Majeure" means an event beyond the control of the 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 and freight embargoes.</p> <p>If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.</p>   |
| 24) | <p><b>Eligibility Criteria:</b></p> <ul style="list-style-type: none"> <li>➤ <b><u>As per the Government of India Order, only "Class - I &amp; II" and "Non Local suppliers" can participate in this tender.</u></b></li> <li>➤ <b><u>Bidder should confirm their acceptance that they comply with the provisions with report to "Guidelines for eligibility of a bidder from a country which shares a land border with India as detailed at Annexure-E. The bidder should submit Certificate for "Bidder from/ Not from Country sharing Land border with India &amp; Registration of Bidder with Competent Authority" as per Order of DoE F.No.6/18/2019-PPD dated 23.07.2020 and No.F.7/10/2021-PPD(1) dated 23.02.2023.</u></b></li> <li>➤ <b>Selection of Successful bidder and Award of Order - Evaluation and Award of contract will be done as per GOI MOCI Order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 &amp; P- 45021/102/2019-BE-II-Part(1) (E-50310) Dt.4th March 2021 and any subsequent Modifications/Amendments and latest orders if any issued by Govt. of India.</b></li> </ul>  |
| 25) | <p><b>Preference to "class I Local Suppliers":</b> preference will be given to "class 1 local suppliers" (subject to class -I local supplier's quoted price falling within the margin of purchase preference ) as per public procurement (preference to make in India) order 2017 .O.M No P- 45021/2/2017 – pp(BE - 11) dt 04/06/2020 subject to the conditions that the "class 1 Local Supplier" should agree to supply goods / provide service at L1 rate and furnish a certificate with the technical bid document that the goods/service provided by them consists local content equal to or more than 50%.( certificate from Chartered Accountant in case value of contract exceeds Rs 10 crore).</p> <ul style="list-style-type: none"> <li>➤ <b>'Class - I local supplier'</b> means a supplier or service provider whose goods, services or works offered for procurement consists of local content equal to or more than 50% as defined under the above said order. <b>Declaration to be provided as per Annexure-D per item/service/work.</b></li> <li>➤ <b>'Class - II local supplier'</b> means a supplier or service provider whose goods, services or works offered for procurement consists of local content equal to 20% but less than 50% as defined under the above said order. <b>Declaration to be provided as per Annexure-D per item/service/work.</b></li> <li>➤ <b>'Non – local supplier'</b> means a supplier or service provider whose goods, services or works offered for procurement consists of local content less than 20% as defined under the above said order.</li> <li>➤ <b>'Margin of purchase preference':</b> - The margin of purchase preference shall be 20%. The Definition of the margin of purchase preference is defined in the Govt. of India Order No: <b>P-45021/12/2017-PP (BE-II) Dt.4th June, 2020) Order 2017. As per the Government of India Order – "Margin of Purchase Preference" means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.</b></li> </ul> <p><b>**Note: Local content percentage to be calculated in accordance with the definition provided at</b></p> |



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|     | <b>clause 2 of revised public procurement preference to Make in India Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020) MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 &amp; P-45021/102/2019-BE-II-Part(1) (E-50310) Dt.4th March 2021</b>  |
| 26) | <p><b>Evaluation of Bids</b><br/>Bid evaluation will take place in two stages.</p> <p><b>Stage I Technical Bid evaluation</b><br/>All bidders who have fully complied with bidder eligibility criteria I, II and technical evaluation (Annexure A) will only be considered for opening of price bid.</p> <p><b>Stage II: Price Bid Evaluation</b><br/>The price bid evaluation will be based on price quoted by the bidder. The rate quoted for <b>DUAL-BEAM ELECTRON MICROSCOPE</b> unit will alone be taken up for arrival of Lowest Bid (L1) value.<br/>Bid prices expressed in different currencies shall be converted to INR as per the prevailing <b>Central Board of Indirect Taxes &amp; Customs (CBIC)</b> exchange rate on the date of opening of price bid</p> |
| 27) | In accordance to the Rule 173 of GFR,2017 and relevant provisions thereof in Procurement Manuals, 2022, IC&SR, IITM reserves the right to carry out the negotiation process through its purchase/technical committee with L1/H1 (as applicable) vendor to ensure price reasonability before final recommendation to the Competent Authority. The negotiation details, if any, on case to case basis shall be recorded in minutes of meetings suitably for records.  |
| 28) | <p><b>Selection of successful bidder and Award of Order</b><br/>The order will be directly awarded to the technically qualified bidder as per the condition in para 3A of DIPP, MoCI Order No. 45021/2/2017-PP (BE II) dated 16th September 2020.</p>   |
| 29) | All information including selection and rejection of technical or financial bids of the prospective bidders will be communicated through e-Tender portal. In terms of Rule 173(iv) of General Financial Rule 2017, the bidder shall be at liberty to question the bidding conditions, bidding process and/or rejection of bids.   |
| 30) | The tenderer shall certify that the tender document submitted by him / her are of the same replica of the tender document as published by IIT Madras and no corrections, additions and alterations made to the same. If any deviation found in the same at any stage and date, the bid / contract will be rejected / terminated and actions will be initiated as per the terms and conditions of the contract.  |
| 31) | Clarification to the queries and doubts raised by the bidders will be issued as a corrigendum/addendum in the e-tenders portal.   |
| 32) | In the e-tender process, participation of bidders after the due date is not possible. The eligible bidders can login to the e-Procurement portal to ascertain the tender status.  |

### **ACKNOWLEDGEMENT**

It is hereby acknowledged that I/We have gone through all the points listed under “Specification, Guidelines, Terms and Conditions” of tender document. I/We totally understand the terms and conditions and agree to abide by the same.

**SIGNATURE OF TENDERER ALONG WITH  
SEAL OF THE COMPANY WITH DATE**

**Bidder Eligibility Criteria and Technical Specification for DUAL-BEAM ELECTRON  
MICROSCOPE**

Tender No. GTE01/PRAD/2024/17/DBELECTMIC

**Bidder Eligibility Criteria – I (Public Procurement – Preference to Make in India)**

Only 'Class-I local suppliers' and 'Class-II local suppliers', as defined under DIPP, MoCI Order No. P-45021/2/2017-PP (BE-II) dated 16<sup>th</sup> September 2020 and other subsequent orders issued therein.

Participation of Non-local supplier may be subject to the limitation provided in para 4 (Exemption of Small Purchases) of DPIIT circular No. P-45021/2/2017-PP(BE-II) Dt 16.Sep.2020 (**ANNEXURE – D**)

**Bidder Eligibility Criteria – II**

1. Vendor Registration ID/Proof.
2. Land Border Certificate (**ANNEXURE – E**).
3. **OEM Certificate Form**-The Participating Bidder's firm shall be the Original Equipment Manufacturer (OEM) or OEM Certified authorized firm (**ANNEXURE – F**).
4. Non- Debarment Declaration (**ANNEXURE – H**).
5. Mandate Form (**ANNEXURE – J**)
6. EMD as per Tender to be remitted in the Account number as given in the **ANNEXURE - I** or EMD is exempted for Micro and Small Enterprises (MSE) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) and Startups as recognized by Department of Industrial Policy & Promotion (DIPP). (MSE/MSME/DIPP PROOF should be enclosed in the cover containing technical bid).
7. Also submit a detailed list of the quoted or similar configuration microscope installed in the last 5 years in India especially in IITs, NITs, National labs, IISERs, CSIR Labs or other Govt. other globally reputed R&D organizations, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.
8. The vendor must guarantee that all the spare parts for the offered microscope and attachments will be available for at least the next 10 years.
9. Bidding firm should have authorized distributor and dedicated service personnel located in Chennai region.

### III. Technical Specification for DUAL-BEAM ELECTRON MICROSCOPE

| S. No. | Technical Specifications  |
|--------|---|
| 1      | <b>Electron source and optics</b>   |
|        | <ul style="list-style-type: none"> <li>• High stability Schottky field emission gun providing stable, high-resolution beam currents, required for the operation of SEM under high vacuum mode.</li> <li>• Adjustable Probe current (Automated aperture control):<br/>Minimum: <math>\leq 2</math> pA.<br/>Maximum: <math>\geq 350</math> nA.</li> <li>• Probe current range should be sufficient to operate all analytical techniques, such as EDS, WDS, In-situ experiments etc.</li> <li>• Voltage range:<br/>Minimum: <math>\leq 250</math> eV.<br/>Maximum: <math>\geq 30</math> keV.</li> <li>• The lower kV range may be obtained with or without beam deceleration as appropriate.</li> <li>• Change in voltage should be continuous using appropriate software control resulting in high beam stability.</li> <li>• The system should have an appropriate lens configuration (solitary or combination of electrostatic &amp; electromagnetic) for high-resolution imaging of beam sensitive materials at a short working distance (<math>\leq 7</math> mm).</li> <li>• Easy gun installation and maintenance procedures like auto focus, auto brightness, auto contrast.</li> <li>• Automated or semi-automated electron gun and column alignment.</li> </ul> |
| 2      | <b>Imaging requirements</b>   |
|        | <ul style="list-style-type: none"> <li>• Resolution in High Vacuum mode: <math>\leq 1</math> nm at 15 kV, <math>\leq 1.2</math> nm at 1 kV.</li> <li>• Magnification: Lower mag: <math>\leq 100</math> x; Higher Mag: <math>\geq 2,000,000</math> x</li> <li>• The best achievable resolution at the above indicated voltages to be quoted which can be with or without beam deceleration technology or other methods as appropriate.</li> <li>• Capability to compensate for image/sample drift due to sample charging when exposed to ion beam while simultaneously imaged with electron beam should be an inherent possibility without the need for additional hardware.</li> </ul>  |

|   |   |
|---|---|
| 3 | <p><b>Cameras and Detectors</b></p> <ul style="list-style-type: none"> <li>• High resolution Everhart-Thornley SE Detector</li> <li>• Dedicated in-column in-lens detectors for BSE and SE signals.</li> <li>• All applicable detectors in transmission geometry for Bright Field, Dark Field and HAADF signals using Annular or segmented detector and its accessories.</li> <li>• Possibility for simultaneously acquisition of In-lens SE &amp; BSE images.</li> <li>• CCD camera for live in-chamber viewing and appropriate navigation systems or cameras to be indicated.</li> <li>• Retractable, dedicated Annular AND/OR multi-quadrant BSE detector(s)</li> </ul>  |
| 4 | <p><b>Ion Column</b></p>  |
|   | <ul style="list-style-type: none"> <li>• Ion Gun : Ga<sup>+</sup> source</li> <li>• Acceleration voltage:<br/>Minimum: ≤ 500 eV.<br/>Maximum: ≥ 30 keV</li> <li>• Image Resolution : ≤ 3 nm at 30 keV</li> <li>• Beam Current: ≤ 5 pA to ≥ 65 nA</li> <li>• All pattern sequencing to be provided with annular, rectangular and custom designed patterns to be utilized for milling, deposition and other related activities.</li> </ul>  |
| 5 | <p><b>Sample Stage</b></p> <ul style="list-style-type: none"> <li>• The stage should be Eucentric, 5-axis Motorised (x, y, z, tilt and rotation):<br/>X axis: ≥110 mm<br/>Y axis: ≥110 mm<br/>Z (height): ≥ 50 mm<br/>Rotation 360<sup>0</sup> (Continuous motorized rotation)<br/>Stage tilt = ≤-10<sup>0</sup> to ≥+80<sup>0</sup></li> </ul> <p>The stage should be capable to take a load of 2 kg or more. The stage should be capable to moving large sized samples with a minimum clearance to eucentric point at 85 mm or better.</p> <ul style="list-style-type: none"> <li>• Specimen exchange should be possible without breaking vacuum of the gun chamber. Sample exchange time should be less than 5 min.</li> </ul> |

|   |   |
|---|---|
|   | <ul style="list-style-type: none"> <li>• Large chamber with at least 15 accessory ports in which there should be dedicated ports for mounting Gas Injection System preferably Platinum source.</li> </ul> <p>Separate Port for STEM and EDS detectors to be provided.</p>   |
| 6 | <p><b>Vacuum system</b></p> <ul style="list-style-type: none"> <li>• Vacuum system should be completely automated, consisting of Ion getter pump, Turbo molecular pump, Oil-free pumping and vacuum system and pneumatic valves.</li> <li>• The system should have integrated plasma cleaner for cleaning the chamber and sample.</li> <li>• Appropriate FEG source isolation mechanism incase of vacuum break down.</li> <li>• Appropriate Ion column vacuum system with isolation mechanism as applicable.</li> <li>• Low vacuum operating mode for sensitive and decomposing samples of upto 500 Pa chamber pressure should be a possibility.</li> </ul>   |
| 7 | <p><b>Scanning and Display</b></p> <ul style="list-style-type: none"> <li>• A high-definition display system (with 24 inch or more) for high-quality imaging in real time under graphical user interface with four quadrants.</li> <li>• Image frame size: High pixel density as applicable.</li> <li>• Frame averaging at least 250 frames.</li> <li>• Dwell time should be <math>\geq 20</math> ns.</li> <li>• Frame/Line/Pixel averaging acquisition Image should be viewed, averaged and integrated.</li> <li>• Drift corrected acquisition.</li> <li>• High end workstation with LCD/LED display operating on windows 10 platform or better for seamless control of microscope operations.</li> <li>• A 500 GB or higher capacity SSD for OS and 4 TB HDD or higher for storage with 16 GB or higher RAM, dedicated graphic card with 8 GB or higher.</li> <li>• Front and back panel USB ports (3.1) - minimum 8 ports, CD/DVD reader &amp; writer.</li> <li>• Storage of SEM images on hard disk in standard TIFF, BMP, JPEG formats in 8-bit or 16-bit depth or better.</li> <li>• Operating conditions need to be stored (and retrieved whenever required).</li> </ul> |

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| 8  | <p><b>Mandatory Accessories</b></p> <ul style="list-style-type: none"> <li>• All necessary tool kits, spare parts and assembly line must be included for trouble free operation.</li> <li>• System cooling- With (chiller to be provided with the system) or without chiller, suitable air compressor to be provided for retractable detectors.</li> <li>• Standard samples for calibration and alignment must be provided.</li> <li>• Multiple sample holders to be provided which accommodates samples of different geometries and varying sizes in the range of 1 mm to 20 mm or larger.</li> <li>• Joystick and manual user interface for easy operation of microscope.</li> <li>• Gas Injection System with single or multiple ports with atleast one source namely Platinum/Tungsten to be provided.</li> <li>• In-built manipulation needle system with motorized movements and rotation, controlled by the same microscope user interface for sample lift-off, manipulation and other necessary movements. Adequate needles suitable for manipulation system to be provided.</li> <li>• Automated electron transparent sample preparation module that can control both ion milling and integrated sample manipulator enabling lift-out for either TEM or Atom Probe sample preparation.</li> </ul> |
| 9  | <p><b>Pre-Installation requirement</b></p> <ul style="list-style-type: none"> <li>• Pre-installation advice such as room, floor plan, size, electrical requirements should be sent immediately after the issue of purchase order.</li> <li>• Necessary environmental requirements, i.e. temperature, humidity, vibrations etc. for uninterrupted operation of microscope should be specified clearly as per feasibility test.</li> </ul>   |
| 10 | <p><b>Warranty and AMC</b></p> <ul style="list-style-type: none"> <li>• Warranty: Minimum of 1 year</li> <li>• The price of subsequent 5-year Comprehensive CMC to be quoted including upgradation of user interface.</li> </ul>   |
| 11 | <p><b>Pre-requisites and Mandatory Requirements</b></p> <ul style="list-style-type: none"> <li>• The quoted microscope should be compatible (stage movement, tilting and all possible maneuvers inside microscope) for, <ul style="list-style-type: none"> <li>1. The in-situ electron transparent sample (thickness of approx. 60 nm over 10 <math>\mu\text{m}</math> <math>\times</math> 10 <math>\mu\text{m}</math> cross section area) and</li> </ul> </li> </ul>  |

2. Hemispherical needle shaped Atom Probe tip (< 50 nm diameter over 4 mm length on a given substrate within a duration of 15 min of milling process from a starting flat surface) preparation,

while holding large samples weighing approx. 1 kg and the same must be demonstrated.

- Capability for simultaneous STEM imaging while thinning of the region of interest by ion beam in appropriate angles of sample tilt should be demonstrated.
- Microscope with all the quoted capabilities for electron transparent sample preparation on the sample provided by the end-user should be demonstrated (in person or via video conferencing) at mutually convenient time and location for technical compliance, system efficiency and cutting-edge performance verification. A sample for the demonstration would be provided to the concerned representative at least 1 week in advance.
- The final decision on technical compliance will be based on live or satisfactory online demonstration of the quoted system.
- Dedicated in-house training for 5 personnels for a minimum period of 2 weeks split in to two phases. Phase 1: Basic operations, Phase 2: advanced level training on gun alignment and beam condition optimization for electron and ion beams.



**TECHNICAL BID PROFORMA**

Tender No. GTE01/PRAD/2024/17/DBELECTMIC

Item Name: DUAL-BEAM ELECTRON MICROSCOPE

**1.0 Bidder Eligibility Criteria:**

| I | <b>Bidder Eligibility Criteria-I<br/>(Public Procurement – Preference to Make in India)</b>   | <b>Class I /<br/>Class II<br/>and Non-<br/>Local<br/>Suppliers</b> | <b>Local<br/>Content<br/>Percentage</b> | <b>Ref. Page No.</b> |
|---|---|--|---|----------------------|
| I | <p>Only 'Class-I local suppliers' and 'Class-II local suppliers', as defined under DIPP, MoCI Order No. P-45021/2/2017-PP (BE II) dated 16th September 2020 and other subsequent orders issued therein.</p> <p>Participation of Non local supplier may be subject to the limitation provided in para 4 (Exemption of Small Purchases) of DPIIT circular No.P-45021/2/2017-PP(BE-II) Dt 16.Sep.2020 (ANNEXURE – D)</p> |  |   |                      |

**2.0 Bidder Eligibility Criteria:**

| II | <b>Bidder Eligibility Criteria-II</b>  | <b>Complied/Not<br/>Complied</b> | <b>Ref<br/>Page<br/>No.</b> |
|----|--|----------------------------------|-----------------------------|
| 1  | Vendor Registration ID/Proof   |                                  |                             |
| 2  | Land Border Certificate (ANNEXURE – E)   |                                  |                             |
| 3  | <b>OEM Certificate Form</b> -The Participating Bidder's firm shall be the Original Equipment Manufacturer (OEM) or OEM Certified authorized firm (ANNEXURE – F)  |                                  |                             |
| 4  | Non- Debarment Declaration (ANNEXURE – H).   |                                  |                             |
| 5  | Mandate Form (ANNEXURE – J)  |                                  |                             |
| 6  | EMD as per Tender to be remitted in the Account number as given in the ANNEXURE I or EMD is exempted for Micro and Small Enterprises (MSE) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) and Startups as recognized by Department of Industrial Policy & Promotion (DIPP). (MSE/MSME/DIPP PROOF should be enclosed in the cover containing technical bid). |                                  |                             |

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| 7 | Also submit a detailed list of the quoted or similar configuration microscope installed in the last 5 years in India especially in IITs, NITs, National labs, IISERs, CSIR Labs or other Govt. other globally reputed R&D organizations, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation. |  |  |
| 8 | The vendor must guarantee that all the spare parts for the offered microscope and attachments will be available for at least the next 10 years.   |  |  |
| 9 | Bidding firm should have authorized distributor and dedicated service personnel located in Chennai region.  |  |  |

### 3.0 Technical Compliance:

| S. No. | Technical Specifications   | Complied/Not Complied | Ref Page No. |
|--------|--|-----------------------|--------------|
| 1      | <p><b>Electron source and optics</b></p> <ul style="list-style-type: none"> <li>High stability Schottky field emission gun providing stable, high-resolution beam currents, required for the operation of SEM under high vacuum mode.</li> <li>Adjustable Probe current (Automated aperture control):<br/>Minimum: <math>\leq 2</math> pA.<br/>Maximum: <math>\geq 350</math> nA.</li> <li>Probe current range should be sufficient to operate all analytical techniques, such as EDS, WDS, In-situ experiments etc.</li> <li>Voltage range:<br/>Minimum: <math>\leq 250</math> eV.<br/>Maximum: <math>\geq 30</math> keV.</li> <li>The lower kV range may be obtained with or without beam deceleration as appropriate.</li> <li>Change in voltage should be continuous using appropriate software control resulting in high beam stability.</li> <li>The system should have an appropriate lens configuration (solitary or combination of electrostatic &amp; electromagnetic) for high-resolution imaging of beam sensitive materials at a short working distance (<math>\leq 7</math> mm).</li> <li>Easy gun installation and maintenance procedures like auto focus, auto brightness, auto contrast.</li> <li>Automated or semi-automated electron gun and column alignment.</li> </ul> |                       |              |

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| 2 | <p><b>Imaging requirements</b></p> <ul style="list-style-type: none"> <li>Resolution in High Vacuum mode: <math>\leq 1</math> nm at 15 kV, <math>\leq 1.2</math> nm at 1 kV.</li> <li>Magnification: Lower mag: <math>\leq 100</math> x; Higher Mag: <math>\geq 2,000,000</math> x</li> <li>The best achievable resolution at the above indicated voltages to be quoted which can be with or without beam deceleration technology or other methods as appropriate.</li> <li>Capability to compensate for image/sample drift due to sample charging when exposed to ion beam while simultaneously imaged with electron beam should be an inherent possibility without the need for additional hardware.</li> </ul> |  |  |
| 3 | <p><b>Cameras and Detectors</b></p> <ul style="list-style-type: none"> <li>High resolution Everhart-Thornley SE Detector</li> <li>Dedicated in-column in-lens detectors for BSE and SE signals.</li> <li>All applicable detectors in transmission geometry for Bright Field, Dark Field and HAADF signals using Annular or segmented detector and its accessories.</li> <li>Possibility for simultaneously acquisition of In-lens SE &amp; BSE images.</li> <li>CCD camera for live in-chamber viewing and appropriate navigation systems or cameras to be indicated.</li> <li>Retractable, dedicated Annular AND/OR multi-quadrant BSE detector(s)</li> </ul>  |  |  |
| 4 | <p><b>Ion Column</b></p> <ul style="list-style-type: none"> <li>Ion Gun : Ga<sup>+</sup> source</li> <li>Acceleration voltage:<br/>Minimum: <math>\leq 500</math> eV.<br/>Maximum: <math>\geq 30</math> keV</li> <li>Image Resolution : <math>\leq 3</math> nm at 30 keV</li> <li>Beam Current: <math>\leq 5</math> pA to <math>\geq 65</math> nA</li> <li>All pattern sequencing to be provided with annular, rectangular and custom designed patterns to be utilized for milling, deposition and other related activities.</li> </ul>   |  |  |
| 5 | <p><b>Sample Stage</b></p> <ul style="list-style-type: none"> <li>The stage should be Eucentric, 5-axis Motorised (x, y, z, tilt and rotation):<br/>X axis: <math>\geq 110</math> mm<br/>Y axis: <math>\geq 110</math> mm<br/>Z (height): <math>\geq 50</math> mm<br/>Rotation 360<sup>0</sup> (Continuous motorized rotation)<br/>Stage tilt = <math>\leq -10^0</math> to <math>\geq +80^0</math><br/>The stage should be capable to take a load of 2 kg or more. The</li> </ul>   |  |  |

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|   | <p>stage should be capable to moving large sized samples with a minimum clearance to eucentric point at 85 mm or better.</p> <ul style="list-style-type: none"> <li>• Specimen exchange should be possible without breaking vacuum of the gun chamber. Sample exchange time should be less than 5 min.</li> <li>• Large chamber with at least 15 accessory ports in which there should be dedicated ports for mounting Gas Injection System preferably Platinum source.</li> </ul> <p>Separate Port for STEM and EDS detectors to be provided.</p>  |  |  |
| 6 | <p><b>Vacuum system</b></p> <ul style="list-style-type: none"> <li>• Vacuum system should be completely automated, consisting of Ion getter pump, Turbo molecular pump, Oil-free pumping and vacuum system and pneumatic valves.</li> <li>• The system should have integrated plasma cleaner for cleaning the chamber and sample.</li> <li>• Appropriate FEG source isolation mechanism incase of vacuum break down.</li> <li>• Appropriate Ion column vacuum system with isolation mechanism as applicable.</li> <li>• Low vacuum operating mode for sensitive and decomposing samples of upto 500 Pa chamber pressure should be a possibility.</li> </ul>   |  |  |
| 7 | <p><b>Scanning and Display</b></p> <ul style="list-style-type: none"> <li>• A high-definition display system (with 24 inch or more) for high-quality imaging in real time under graphical user interface with four quadrants.</li> <li>• Image frame size: High pixel density as applicable.</li> <li>• Frame averaging at least 250 frames.</li> <li>• Dwell time should be <math>\geq 20</math> ns.</li> <li>• Frame/Line/Pixel averaging acquisition Image should be viewed, averaged and integrated.</li> <li>• Drift corrected acquisition.</li> <li>• High end workstation with LCD/LED display operating on windows 10 platform or better for seamless control of microscope operations.</li> <li>• A 500 GB or higher capacity SSD for OS and 4 TB HDD or higher for storage with 16 GB or higher RAM, dedicated graphic card with 8 GB or higher.</li> <li>• Front and back panel USB ports (3.1) - minimum 8 ports, CD/DVD reader &amp; writer.</li> <li>• Storage of SEM images on hard disk in standard TIFF, BMP, JPEG formats in 8-bit or 16-bit depth or better.</li> <li>• Operating conditions need to be stored (and retrieved whenever required).</li> </ul> |  |  |

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| 8  | <p><b>Mandatory Accessories</b></p> <ul style="list-style-type: none"> <li>• All necessary tool kits, spare parts and assembly line must be included for trouble free operation.</li> <li>• System cooling- With (chiller to be provided with the system) or without chiller, suitable air compressor to be provided for retractable detectors.</li> <li>• Standard samples for calibration and alignment must be provided.</li> <li>• Multiple sample holders to be provided which accommodates samples of different geometries and varying sizes in the range of 1 mm to 20 mm or larger.</li> <li>• Joystick and manual user interface for easy operation of microscope.</li> <li>• Gas Injection System with single or multiple ports with atleast one source namely Platinum/Tungsten to be provided.</li> <li>• In-built manipulation needle system with motorized movements and rotation, controlled by the same microscope user interface for sample lift-off, manipulation and other necessary movements. Adequate needles suitable for manipulation system to be provided.</li> <li>• Automated electron transparent sample preparation module that can control both ion milling and integrated sample manipulator enabling lift-out for either TEM or Atom Probe sample preparation.</li> </ul> |  |  |
| 9  | <p><b>Pre-Installation requirement</b></p> <ul style="list-style-type: none"> <li>• Pre-installation advice such as room, floor plan, size, electrical requirements should be sent immediately after the issue of purchase order.</li> <li>• Necessary environmental requirements, i.e. temperature, humidity, vibrations etc. for uninterrupted operation of microscope should be specified clearly as per feasibility test.</li> </ul>   |  |  |
| 10 | <p><b>Warranty and AMC</b></p> <ul style="list-style-type: none"> <li>• Warranty: Minimum of 1 year</li> <li>• The price of subsequent 5-year Comprehensive CMC to be quoted including upgradation of user interface.</li> </ul>   |  |  |
| 11 | <p><b>Pre-requisites and Mandatory Requirements</b></p> <ul style="list-style-type: none"> <li>• The quoted microscope should be compatible (stage movement, tilting and all possible maneuvers inside microscope) for, <ol style="list-style-type: none"> <li>1. The in-situ electron transparent sample (thickness of approx. 60 nm over 10 <math>\mu\text{m}</math> <math>\times</math> 10 <math>\mu\text{m}</math> cross section area) and</li> <li>2. Hemispherical needle shaped Atom Probe tip (&lt; 50 nm diameter over 4 mm length on a given substrate within a duration of 15 min of milling process from a starting flat surface) preparation, while holding large samples weighing approx. 1 kg and the same</li> </ol> </li> </ul>   |  |  |

|  |   |  |  |
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|  | <p>must be demonstrated.</p> <ul style="list-style-type: none"> <li>• Capability for simultaneous STEM imaging while thinning of the region of interest by ion beam in appropriate angles of sample tilt should be demonstrated.</li> <li>• Microscope with all the quoted capabilities for electron transparent sample preparation on the sample provided by the end-user should be demonstrated (in person or via video conferencing) at mutually convenient time and location for technical compliance, system efficiency and cutting-edge performance verification. A sample for the demonstration would be provided to the concerned representative at least 1 week in advance.</li> <li>• The final decision on technical compliance will be based on live or satisfactory online demonstration of the quoted system.</li> <li>• Dedicated in-house training for 5 personnels for a minimum period of 2 weeks split in to two phases. Phase 1: Basic operations, Phase 2: advanced level training on gun alignment and beam condition optimization for electron and ion beams.</li> </ul> |  |  |
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**SIGNATURE OF BIDDER ALONG WITH  
SEAL OF THE COMPANY WITH DATE**

**FINANCIAL BID (PROFORMA) - BILL OF QUANTITIES (BOQ)**

**Item Name: DUAL-BEAM ELECTRON MICROSCOPE**  
**Tender No. GTE01/PRAD/2024/17/DBELECTMIC**

| <b>It. No</b> | <b>Description of work</b>  | <b>Quantity</b> | <b>Currency</b>                         | <b>Unit Rate Ex-Works</b> | <b>CIP / GST charges in value</b> | <b>Total (A+B)</b> |
|---------------|---|-----------------|---|---------------------------|-----------------------------------|--------------------|
|               |   |                 |   | <b>(A)</b>                | <b>(B)</b>                        |                    |
| 1             | Dual-Beam Electron Microscope with minimum one year warranty.                             | 1 No.           | INR/USD/EUR/CAD/<br>JPY/GBP/AUD/SGD/CHF |                           |                                   |                    |
| 2             | Subsequent 5 year Comprehensive CMC for Dual-Beam Electron Microscope ( <b>Optional</b> ) | 1 No.           | INR/USD/EUR/CAD/<br>JPY/GBP/AUD/SGD/CHF |                           |                                   |                    |
|               | <b>Grand Total</b>  |                 |   |                           |                                   |                    |

Note:

1. Price bid as per this format to be uploaded only at the financial document column in CPP Portal. Price disclosure at the technical bid will result in disqualification.
2. Technical Bid Should NOT Contain Price Bid/Financial Bid details (or) Indication. If the price Details are indicated, mentioned inside the Technical bid, then bid will be disqualified and neither the Technical Bid nor the Price Bid/Financial Bid will be considered.
3. Optional Items – to be mandatorily quoted.
4. The Purchaser reserves the right to procure the optional items based on the budgetary provisions.
5. The Value mentioned for Optional items, if any, will not be considered for arriving L1 vendor.

I/We the bidder accept all the terms and conditions as per tender including all technical & commercial conditions.

Date:  
Place:

Authorized Signatory  
 (\_\_\_\_\_)  
 Seal and signature

**FORMAT FOR AFFIDAVIT OF SELF-CERTIFICATION UNDER PREFERENCE TO MAKE  
IN INDIA – PER ITEM**

This letter should be on the letterhead of the quoting firm and should be signed by a competent authority. Non-submission of this will lead to Disqualification of bids.

**Tender Reference Number:**

**Name of the item / Service:**

Date: \_\_\_\_\_

I/We \_\_\_\_\_ S/o, D/o, W/o, \_\_\_\_\_

Resident of  
\_\_\_\_\_

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020) MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P- 45021/102/2019-BE-II-Part (1) (E-50310) Dt. 4th March 2021 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said item/service/work has been verified by me and I am responsible for the correctness of the claims made therein.

| <b>Tick (✓) and Fill the Appropriate Category</b> |  |
|---|--|
| <input type="checkbox"/>                          | I/We _____ [name of the supplier] hereby confirm in respect of quoted items that Local Content is equal to or more than 50% and come under “ <b>Class-I Local Supplier</b> ” category.       |
| <input type="checkbox"/>                          | I/We _____ [name of the supplier] hereby confirm in respect of quoted items that Local Content is equal to 20% but less than 50% and come under “ <b>Class-II Local Supplier</b> ” category. |
| <input type="checkbox"/>                          | I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items that Local Content is less than 20% come under ‘ <b>Non – Local Supplier</b> ’ category                      |

- The details of the location (s) at which the local value addition is made and the proportionate value of local content in percentage

Address \_\_\_\_\_ Percentage of Local content: \_\_\_\_\_%

For and on behalf of ..... (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.



(To be given on the letter head of the bidder)

No. \_\_\_\_\_

Dated: \_\_\_\_\_

**CERTIFICATE**

*(Bidders from India)*

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and hereby certify that I am not from such a country.

**OR (*whichever is applicable*)**

*(Bidders from Country which shares a land border with India)*

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and hereby certify that I from \_\_\_\_\_ (Name of Country) and has been registered with the Competent Authority. I also certify that I fulfil 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)*

Place:

Date:

Signature of the Tenderer  
Name & Address of the  
Tenderer with Office Stamp

**OEM CERTIFICATION FORM**  
**(In Original Letter Head of OEM)**

Tender No: ..... Dated: .....

We are Original Equipment Manufacturers (OEM) of..... (Name of the company) Ms..... (Name of the vendor) is one of our Distributors/Dealers/Resellers/Partners (tick one) for the ..... and is participating in the above-mentioned tender by offering our product model.....(Name of the product with model number).

..... is authorized to bid, sell and provide service support warranty for our product as mentioned above.

Name and Signature of the authorized signatory of OEM along with seal of the company with Date

**TENDER CHECKLIST – Mandatory to be filled and sent (inside the Main Bid Cover) along with Bidding Document.**

- (1) I have registered as a Vendor with IC&SR. (Proof to be enclosed)  
(**ISO certificate, Active GSTIN certificate, valid PAN details**)
- (2) Technical bid cover and Financial Bid cover to be submitted separated.
- (3) Completed and **Signed Form of Tender**. The Form of Tender document shall be signed by a person legally authorized.
- (4) Completed Technical Compliance Statement
- (5) Evidence of similar contracts completed/Product supplied in case if the details are requested in (**Annexure – A**)
- (6) Certification of Class I / Class II (**As a part of technical bid**) per item / service / work as per (**Annexure – D**)
- (7) EMD (**Annexure – I**)
- (8) Land Border (**Annexure – E**)
- (9) Authorized agent certificate from OEM is mandatory if Indian agent/Indian office of OEM is participating in this tender on behalf of OEM. (**Annexure F**)

The bid will be valid only if all the above documents are provided. Bidders are asked to supply and tick off the required information. Failure to provide any of the stated documents may result in the bid being considered as non-compliant and rejected.

**Signature of the Bidder**

**FORM - A  
NON- DEBARMENT DECLARATION**

**Date: XXXX**

To,  
The Indian Institute of Technology Madras,  
Sardar Patel road,  
Guindy, Chennai - 600036

**Subject: Non-debarment declaration in connection with tender RFF No: XXXXXX for procurement of “XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX”**

Dear Sir,

This is to notify you that our Firm/Company/Organization <provide Name of the Firm/Company/Organization> intends to submit a proposal in response to the invitation for procurement of “XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX” In accordance with the above we declare that:

- a. We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this assignment.
  
- b. We are not debarred by any Central/ State Government/ agency of Central/ State Government of India or any other country in the world/ Public Sector Undertaking/ any Regulatory Authorities in India or any other country in the world for any kind of fraudulent activities in last XX years.

Sincerely,

[BIDDERS NAME]

Name

Title Signature



CENTRE FOR INDUSTRIAL CONSULTANCY & SPONSORED RESEARCH (IC&SR)  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
CHENNAI 600 036



**ELECTRONIC CLEARING SERVICE (Credit Clearing)/ REAL TIME GROSS SETTLEMENT (RTGS) FACILITY FOR RECEIVING PAYMENTS**

**A. Details of Account Holder**

|                                 |   |
|---------------------------------|---|
| Name of the Institution         | Indian Institute of Technology - Madras   |
| Complete Contact Address        | Industrial Consultancy and Sponsored Research<br>Indian Institute of Technology-Madras,<br>IIT- Madras Campus Post Office,<br>Sardar Patel Road,<br>Guindy, CHENNAI - 600 036 |
| Permanent Account Number (PAN)* | AAAAI3615G  |
| GST REGISTRATION NO.            | 33AAAAI3615G1Z6   |
| Telephone No./ Fax No.          | Tel - 044-2257 8356   |
| E- mail ID of the FO/AO/REG/DIR | dricsr@iitm.ac.in   |

**B. Bank Account Details:**

|   |  |
|---|--|
| Institution Account Name (As per Bank Record) | The Registrar, Indian Institute of Technology - Madras   |
| Account No.                                   | 2722101003872  |
| IFSC CODE                                     | CNRB0002722  |
| SWIFT CODE                                    | CNRBINBBIIT  |
| Bank Name (in full)                           | Canara Bank  |
| Branch Name                                   | IIT-Madras Branch  |
| Complete Branch Address                       | Canara Bank,<br>IIT-Madras Branch,<br>IIT- Madras Campus Post Office,<br>Sardar Patel Road,<br>Guindy, CHENNAI - 600 036 |
| MICR No.                                      | 600015085  |
| Account Type                                  | Savings Account  |

Certified that the Institute's account is in an RTGS enabled branch.  
I hereby declare that the particulars given above are correct and complete.

Date: 04/08/2023

कृते कनारा बँक / For CANARA BANK

  
अधिकारी / Officer  
ग्रँडे ग्रँडे ट्री चेंनई शाखा / IIT Chennai Branch  
चेन्नई / Chennai - 600 036

करोलिन लेमिना.म  
M. KAROLINE LEMINA  
अधिकारी  
OFFICER  
S.P. No:64356

  
Signature of the Competent Authority  
of the Institution with seal.

उप कुलसचिव (आईसी एवं एसआर)  
DEPUTY REGISTRAR (IC & SR)  
आईआईटी मद्रास  
I.I.T. MADRAS

**MANDATE FORM****ELECTRONICS CLEARING SERVICE (CREDIT CLEARING)/REAL TIME GROSS SETTLEMENT (RTGS) FACILITY FOR RECEIVING PAYMENTS.**

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**A. DETAILS OF ACCOUNT HOLDER:-**

|                             |  |
|-----------------------------|--|
| NAME OF ACCOUNT HOLDER      |  |
| COMPLETE CONTACT ADDRESS    |  |
| TELEPHONE NUMBER/FAX/E MAIL |  |

**B. BANK ACCOUNT DETAILS:-**

|  |  |
|--|--|
| BANK NAME  |  |
| BRANCH NAME WITH COMPLETE ADDRESS,<br>TELEPHONE NUMBER AND EMAIL                               |  |
| WHETHER THE BRANCH IS COMPUTERISED?  |  |
| WHETHER THE BRANCH IS RTGS ENABLED? IF YES,<br>THEN WHAT IS THE BRANCH <b><u>IFSC CODE</u></b> |  |
| IS THE BRANCH ALSO NEFT ENABLED?   |  |
| TYPE OF BANK ACCOUNT(SB/CURRENT/CASH CREDIT)   |  |
| COMPLETE BANK ACCOUNT NUMBER(LATEST)   |  |
| MICR CODE OF BANK  |  |

**DATE OF EFFECT:**

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge responsibility expected of me as a participant under the Scheme.

(.....)

Signature of Customer

Date:

Certified that the particulars furnished above are correct as per our records.

**(Bank's Stamp)**

(.....)

Signature of Customer

Date :

1. Please attach a photocopy of cheque along with the verification obtained from the bank.
2. In case your Bank Branch is presently not "RTGS enabled", then upon its up gradation to "RTGS Enabled" branch, please submit the information again in the above proforma to the Department at earliest.