

### **Indian Institute of Technology Palakkad**

भारतीयप्रौद्योगिकीसंस्थानपालक्काड

#### STORES & PURCHASE SECTION

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Tender No. IITPKD/CIF/SM/2021-22/021 Date of Publication: 12-10-2021 Date/Time of Closing: 02-11-2021, 1500 hours

Indian Institute of Technology Palakkad Invites Global Tender under Two-bid system for the:

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HIGH TEMPERATURE (1700 C CONTINUOUS OPERATION) CHAMBER FURNACE WITH PROGRAMMABLE PID TEMPERATURE CONTROLLER

Conforming to the specifications as in BoQ Technical.

Tender Documents may be downloaded from the e-Wizard Portal <a href="https://mhrd.euniwizarde.com/">https://mhrd.euniwizarde.com/</a>. Aspiring Bidders who have not enrolled / registered in e-Wizard should enroll / register before participating through the website <a href="https://mhrd.euniwizarde.com/">https://mhrd.euniwizarde.com/</a>. Bidders are advised to go through instructions provided at "Procedure for Submission of E-tender". [Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this e-Wizard Portal"].

Bidders can access tender documents on the website. For searching in the site, kindly go to Live Tenders option, Click "Advance Search" and select Department as 'IIT Palakkad'. Thereafter, Click on "Search" button to view all IIT Palakkad tenders. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <a href="https://mhrd.euniwizarde.com/">https://mhrd.euniwizarde.com/</a> as per the timeline below.

No manual bids will be accepted. All tender documents including Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.

| S. No. | Events                                       | Date and Time          |
|--------|----------------------------------------------|------------------------|
| 1      | <b>Publication of the Tender Document</b>    | 12-10-2021             |
| 3      | Last Date/Time for submission of ONLINE Bids | 02-11-2021, 1500 hours |
| 4      | Opening of Technical Bids                    | 02-11-2021, 1515 hours |

#### **TERMS AND CONDITIONS**

# GENERAL (a) The responsibility of submission of the bids on or before the last date shall rest with the tenderer. The institute will hold no responsibility for the non-receipt of the bids or the bids received after the date/time specified. Any bid received by IITPKD after the bid submission deadline prescribed by IITPKD, shall be rejected and returned unopened to the Bidder. (b) Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a bid is an offence under the Laws of India. Such action will result in the rejection of bid, in addition to other punitive measures. (c) Each bidder shall submit only one bid, either by himself or as a partner in a joint venture or as a member of the consortium. If a bidder or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one bid, the bids (of both the individual and the partnership/consortium/joint venture) are liable to be rejected. (d) The bidder shall bear all costs associated with the preparation and submission of his bid and IITPKD shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tender process. (e) IITPKD will respond to any request for clarification or modification of the Tender Document that are received up to TWO DAYS prior to the deadline for submission of bids prescribed by HTPKD. For this purpose, the prospective bidder(s) requiring clarification in the Tender Document shall notify IITPKD through the ONLINE Portal ONLY. Any such clarification, together with all the details on which the clarification had been sought, will be published in the ONLINE Portal ONLY. Deviations, if any, observed by the Institute in the submitted bids, from the Terms and Conditions of the Tender Document will not be accepted by the Institute. Except for any such clarification by the Institute, which is expressly stated to be an addendum to the tender document issued by the Registrar, IIT Palakkad, no written or oral communication, presentation or explanation by any other employee of any of the Sections/Departments of the Institute, shall be taken to bind or fetter the Institute. (f) The bidder is expected to examine all instructions, forms, terms and conditions in the Tender Document. In the event of discovery of any missing pages, the bidder shall inform the same to the Section/ Department concerned. Failure to furnish the information required by the Tender Document or submission of a tender not substantially responsive to the Tender Document in every respect will be at the bidder's risk and may result in rejection of the bid. (g) The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document. (h) The Supplier shall not, without the prior written consent of the IITPKD,

assign to any third party, the Contract or any part thereof.

| 2 | COMPOSITION OF THE TENDER DOCUMENT | <ul> <li>(a) The Tender Document comprises of: Instruction to the bidders including terms and conditions <ol> <li>Technical Specifications (Annexure-I)</li> <li>Format For Self-Certification Under Preference To Make In India(Annexure-II)</li> <li>Bid Security Declaration Form (Annexure-III)</li> <li>Undertaking by the Bidder (Annexure-IV)</li> <li>Fall Clause Notice Certificate (Annexure-V)</li> </ol> </li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | DOCUMENTS                          | (a) The Technical, Techno-commercial and Commercial Bids (Cover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|   | COMPRISING THE BID                 | One) and Commercial Bid (Cover Two) shall be submitted ONLINE through the e-Wizard Portal.  (b) Bids submitted in any mode other than ONLINE will be rejected outright.  (c) Documents establishing the conformity of the terms and conditions of the Tender Document shall be provided along with the bid. The offer/bids should be sent only for a system or that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.  (d) Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.  (e) Compliance or Confirmation report with reference to the specifications and other terms and conditions should also be obtained from the principal.  (f) Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.  (g) The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in the technical bid. Mentioning of Prices in the Technical Bid shall lead to DISQUALIFICATION.  (h) Bidders who are bidding for this tender shall,  1) Should have implemented at least three orders of HIGH TEMPERATURE (More than 1600 C CONTINUOUS) CHAMBER FURNACE with Programmable PID Temperature Controller during previous three financial years (2017-18, 2018-19, 2019-20) from Centrally Funded Technical Institutes (IITS, NITS, IISC, IISER), DRDO, ISRO, CSIR labs or Government Firms in India. Copies of the most recent purchase orders and user certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished.  2) Have an Average Annual Turnover of Rs 40,00,000 (RUPEES FORTY LAKH ONLY) during the last THREE financial years (2017-18, 2018-19, 2019-20). The bidder shall enclose the audited statements of |
| 4 | EADNIECE MONEY                     | 3) Digitally signed Tender Document should be submitted in Cover One.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4 | EARNEST MONEY                      | (a) The bidder shall furnish, as part of the technical bid, <b>Bid Security</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|   | DEPOSIT (EMD)    | Declaration Form as per the Annexure-II.                                                                                                        |
|---|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                  | (b) Bids not accompanied by Bid Security Declaration Form shall be                                                                              |
|   |                  | DISQUALIFIED.                                                                                                                                   |
| 5 | PERFORMANCE      | (a) The performance security shall be submitted within <b>FIFTEEN DAYS</b> of                                                                   |
|   | SECURITY         | receipt of the material by the IITPKD. The successful bidder shall                                                                              |
|   |                  | furnish the Performance Security equal to 3% of the order / contract                                                                            |
|   |                  | value (excluding the value of annual maintenance charges). The                                                                                  |
|   |                  | Performance Security shall be valid all along the warranty period and                                                                           |
|   |                  | shall extend upto <b>SIXTYDAYS</b> after the date of completion of warranty                                                                     |
|   |                  | period. It shall be ensured by the successful bidder that the validity of the                                                                   |
|   |                  | Performance Security submitted is extended depending on the date of                                                                             |
|   |                  | commencement of the Warranty.                                                                                                                   |
|   |                  | (b) The performance security shall be a bank guarantee (in the format as provided) issued by the Indian Scheduled bank acceptable to the IITPKD |
|   |                  | or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY                                                                                      |
|   |                  | PALAKKAD payable at PALAKKAD.                                                                                                                   |
|   |                  | (c) The performance security shall automatically become null and void once                                                                      |
|   |                  | all the obligations of the Supplier under the Contract have been fulfilled,                                                                     |
|   |                  | including, but not limited to, any obligations during the Warranty Period                                                                       |
|   |                  | and any extensions to the period. The performance security shall be                                                                             |
|   |                  | returned to the Supplier not later than fifteen (15) days after its                                                                             |
|   |                  | expiration.                                                                                                                                     |
|   |                  | (d) Failure of the successful Bidder to comply with the requirements shall                                                                      |
|   |                  | constitute enough grounds for the annulment of the award and forfeiture                                                                         |
|   |                  | of the EMD, in which event the IITPKD may make the award to the next                                                                            |
|   |                  | lowest evaluated bid submitted by a qualified Bidder or call for new                                                                            |
|   |                  | bids.                                                                                                                                           |
| 6 | BID PRICES AND   | (a) Prices must be quoted separately for each equipment/item identified.                                                                        |
|   | CURRENCY         | (b) Price quoted for equipment/items shall include all the costs                                                                                |
|   |                  | associated with packing, local transportation from the point of                                                                                 |
|   |                  | clearance to HTPKD, insurance, loading, unloading and associated                                                                                |
|   |                  | delivery charges. The delivery shall be on DOOR DELIVERY basis                                                                                  |
|   |                  | to the institute including its installation, commissioning, integration                                                                         |
|   |                  | and validation. It is the sole responsibility of the supplier to ensure<br>that the equipment is delivered on DDP mode to IIT Palakkad. An      |
|   |                  | undertaking to this effect as in Annexure-IV.                                                                                                   |
|   |                  | (c) Prices quoted by the bidder shall be fixed during the validity of the bid.                                                                  |
|   |                  | (d) Prices of the equipment/items shall be quoted in Indian Rupees                                                                              |
|   |                  | (INR) / Foreign Currency.                                                                                                                       |
| 7 | LETTER OF CREDIT | (a) Upon the successful Bidder's furnishing of the copy of the Purchase                                                                         |
|   |                  | Order duly signed on each page and the Performance Security, for the                                                                            |
|   |                  | equipment ordered in foreign currency, IITPKD will open a letter of credit                                                                      |
|   |                  | (LC) in a convenient Nationalized Bank in India. For opening of LC                                                                              |
|   |                  | necessary information shall be provided by the supplier or its authorized                                                                       |
|   |                  | agents.                                                                                                                                         |
|   |                  | (b) In case the successful bidder is a foreign company and wishes to submit                                                                     |
|   |                  | Performance Security in the form of Bank Guarantee, the Bank Guarantee                                                                          |
|   |                  | should be routed through the Beneficiary Bank to the end user bank.                                                                             |
|   |                  | Otherwise, the Indian Agent of the foreign vendor shall submit a Bank                                                                           |
|   |                  | Guarantee from a Nationalized Bank of India. The following documents shall                                                                      |
| 1 |                  | be submitted in case of an Indian agent submitting the Performance Security                                                                     |

|    |                                 | on behalf of his principal:                                                                                                                                   |
|----|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                 | Foreign principal's proforma invoice indicating the commission                                                                                                |
|    |                                 | payable to the Indian agent and nature of after-sales service to be                                                                                           |
|    |                                 | rendered by the Indian agent.  • Copy of the agency agreement with the foreign principal and the                                                              |
|    |                                 | precise relationship between them and their mutual interest in the                                                                                            |
|    |                                 | business.                                                                                                                                                     |
|    |                                 | (c) For imported equipment, a Letter of Credit (LC) shall be opened for                                                                                       |
|    |                                 | 100% CIP price on receipt of the acknowledgment of the purchase order.                                                                                        |
|    |                                 | However, 80% of the LC amount only shall be released on proof of the                                                                                          |
|    |                                 | shipment of the consignment with necessary documents to be provided in                                                                                        |
|    |                                 | detail at the time of placing of the purchase order. Balance 20% of the LC                                                                                    |
|    |                                 | amount shall be released upon the receipt of a performance security of 5% of                                                                                  |
|    |                                 | the total value of the purchase order and installation, commissioning,                                                                                        |
|    |                                 | integration, validation and installation report/certification jointly given by the                                                                            |
|    |                                 | end user and the supplier.                                                                                                                                    |
|    |                                 | Any costs associated with the amendments made in the LC as per the request made by the Supplier's should be borne by the supplier.                            |
|    |                                 | Any fluctuation in rates / rate conversions arising due to the amendment                                                                                      |
|    |                                 | requests made by the supplier shall be on the supplier and not on the                                                                                         |
|    |                                 | institute.                                                                                                                                                    |
| 8  | PERIOD OF VALIDITY              | (d) Bids shall remain valid for a period of 180 DAYS after the date of the                                                                                    |
|    | OF BIDS                         | deadline for submission of bids prescribed by IITPKD.                                                                                                         |
|    |                                 | (e) If the deadline is extended due to unforeseen circumstances, the bid                                                                                      |
|    |                                 | validity shall be deemed to have extended accordingly.                                                                                                        |
| 9  | TIME FOR SUPPLY,                | (a) The Supplier shall supply the equipment/items within the period                                                                                           |
|    | INSTALLATION, COMMISSIONING AND | specified in the tender document i.e. within <b>THREE MONTHS</b> of signing the purchase order or within the period mutually agreed between                   |
|    | VALIDATION OF THE               | IITPKD and supplier. All the equipment and accessories should be                                                                                              |
|    | EQUIPMENTS/ITEMS                | delivered at IIT Palakkad (Nila Campus), Kanjikode-Malampuzha                                                                                                 |
|    |                                 | Road, Pudusserry West, Kanjikode, Kerala 678623.                                                                                                              |
|    |                                 | (b) The Supplier shall thereafter proceed with the installation,                                                                                              |
|    |                                 | commissioning, integration and validation and demonstrate operational                                                                                         |
|    |                                 | acceptance of the equipment/items within the period specified. The                                                                                            |
|    |                                 | equipment/items shall be installed and commissioned by the successful                                                                                         |
|    |                                 | bidder within 20 to 25 days from the date of its receipt.                                                                                                     |
|    |                                 | (c) The tenderer should indicate clearly the time required for delivery of the                                                                                |
|    |                                 | item. 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.                                                                                                                                               |
|    |                                 | (d) In the event of failure of supply of the item/equipment/items within the                                                                                  |
|    |                                 | stipulated delivery schedule, IITPKD has all the right to purchase the                                                                                        |
|    |                                 | item/equipment/items from other sources on the total risk of the Supplier                                                                                     |
|    |                                 | under the risk purchase clause.                                                                                                                               |
| 10 | PRODUCT UPGRADES                | The Supplier shall continue to support and maintain the version/model of the                                                                                  |
|    |                                 | Equipment supplied by upgrading the software and the hardware as and when                                                                                     |
|    |                                 | amendments are carried out in the existing version or the product is upgraded.                                                                                |
|    |                                 | Whereas upgrades to the software shall be supplied free of cost, the Supplier may                                                                             |
|    |                                 | charge for upgrade in hardware provided it is of major nature. An upgraded higher version of the instrument and software related with the instrument shall be |
|    |                                 | supplied.                                                                                                                                                     |
|    | l                               | supplied.                                                                                                                                                     |

| 11  | PENALTIES          | If the Supplier fails to complete any of the activities in accordance with the time                                                                |
|-----|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                    | specified for it, or any extension of time granted by IITPKD, Liquidated                                                                           |
|     |                    | Damages Clause shall be invoked.                                                                                                                   |
| 12  | UP-TIME GUARANTEE/ | (a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days)                                                                    |
|     | DOWNTIME PENALTY   | X 365 (days)] basis during the warranty period.                                                                                                    |
|     | CLAUSE             | (b) The Supplier should provide up-time guarantee of 95% (24 hours/day basis)                                                                      |
|     |                    | both during warranty. If downtime exceeds the 5% limit, extension of the                                                                           |
|     |                    | warranty period will be twice the excess down time period.                                                                                         |
| 13  | LIQUIDATED         | If a firm accepts an order and fails to execute the order, in full or part, as per                                                                 |
|     | DAMAGES            | the terms and conditions stipulated therein, it will be open to the Institute to                                                                   |
|     |                    | recover liquidated damages from the firm at the rate of 1% of the value of the                                                                     |
|     |                    | undelivered goods per month or part thereof, subject to a maximum of 5% of                                                                         |
|     |                    | the value of the undelivered goods. It will also be open to the Institute                                                                          |
|     |                    | alternatively, to arrange procurement of the required stores from any source,                                                                      |
|     |                    | at the risk and expense of the firm, accepted and failed to execute the order                                                                      |
|     |                    | according to stipulations agreed upon. This will also entail the removal of the                                                                    |
| 4.4 |                    | defaulters' name from the approved/registered list of Suppliers.                                                                                   |
| 14  | EFFECT OF FORCE    | (a) If the Supplier is prevented, hindered, or delayed from or in performing                                                                       |
|     | MAJEURE            | any of its obligations under the Contract by an event of Force Majeure, then it shall notify the IITPKD in writing of the occurrence of such event |
|     |                    | and the circumstances of the event of Force Majeure within <b>FIFTEEN</b>                                                                          |
|     |                    | DAYS after the occurrence of such event.                                                                                                           |
|     |                    | (b) The Supplier, when affected by the event of Force Majeure shall use                                                                            |
|     |                    | reasonable efforts to mitigate the effect of the event of Force Majeure                                                                            |
|     |                    | upon its performance of the Contract and to fulfill its obligations under                                                                          |
|     |                    | the Contract, but without prejudice to IITPKD's right to terminate the                                                                             |
|     |                    | Contract.                                                                                                                                          |
|     |                    | (c) No delay or non-performance by the Supplier caused by the occurrence                                                                           |
|     |                    | of any event of Force Majeure shall:                                                                                                               |
|     |                    | <ol> <li>Constitute a default or breach of the Contract;</li> </ol>                                                                                |
|     |                    | ii. Give rise to any claim for damages or additional cost or                                                                                       |
|     |                    | expense occasioned by the delay or non-performance.                                                                                                |
|     |                    | (d) If the performance of the Contract is substantially prevented, hindered,                                                                       |
|     |                    | or delayed for a single period of more than <b>THIRTYDAYS</b> or an                                                                                |
|     |                    | aggregate period of more than <b>SIXTY DAYS</b> on account of one or more                                                                          |
|     |                    | events of Force Majeure, the IITPKD shall have the right to terminate                                                                              |
| 15  | EXTENSION OF TIME  | the Contract by giving a notice to the Supplier.  (a) The time limit for supply, installation & commissioning, integration &                       |
| 15  | LIMITS FOR SUPPLY  | validation shall be extended if the supply is delayed or impeded in the                                                                            |
|     | AND MAKING         | performance of any of its obligations under the Contract by reason of                                                                              |
|     | OPERATIONAL, THE   | any of the following:                                                                                                                              |
|     | EQUIPMENT THE      | i. Any occurrence of Force Majeure;                                                                                                                |
|     |                    | ii. Any other matter specifically mentioned in the Contract;                                                                                       |
|     |                    | (b) By such period as shall be fair and reasonable in all the circumstances                                                                        |
|     |                    | and as shall fairly reflect the delay or impediment sustained by the                                                                               |
|     |                    | Supplier.                                                                                                                                          |
| 16  | GOVERNING LAW      | (a) The Contract shall be governed by and interpreted in accordance with                                                                           |
|     | AND                | the laws of India.                                                                                                                                 |
|     | SETTLEMENT         | (b) Any dispute or claim arising out of/relating to this Contract of the                                                                           |
|     | OF DISPUTES        | breach, termination or the invalidity thereof, shall be settled by the                                                                             |
|     |                    | Hon'ble Courts of Justice at Palakkad.                                                                                                             |

| (c) | The page number should be marked in all pages serially (including all   |
|-----|-------------------------------------------------------------------------|
|     | supporting documents enclosed with the tender document) and the         |
|     | declaration for the same shall be submitted by the bidder as in         |
|     | Annexure-IV.                                                            |
| (d) | IITPKD reserves the right to accept or reject any or all the tenders in |
|     | part or whole or may cancel the tender at its sole discretion without   |
|     | assigning any reason whatsoever. No further correspondence in this      |

regard will be entertained.

# AWARD OF CONTRACT

| 1 | AWARD CRITERIA          | ha<br>pe<br>09<br>an | TPKD will award the Contract to the Bidder whose bid is been determined to be substantially responsive and as it the Order No. P-45021/2/2017-PP(BE-II) dated 16-2020 from Department for Promotion of Industry d Internal Trade (Public Procurement Section), inistry of Commerce and Industry, Govt. of India. |
|---|-------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                         | ite<br>ine           | ne Institute reserves the right to buy different ms/quantities from different bidders considering price of dividual/group of equipment/items or any other factors decided by the Committee.                                                                                                                      |
| 2 | AWARD OF PURCHASE ORDER |                      | ior to the expiration of the period of bid validity, FPKD will issue the Letter of Intent / Purchase Order to                                                                                                                                                                                                    |
|   |                         | the                  | e successful Bidder in writing.                                                                                                                                                                                                                                                                                  |
|   |                         |                      | ny amendment(s) in the Purchase Order will be permitted                                                                                                                                                                                                                                                          |
|   |                         |                      | thin <b>SEVEN DAYS</b> of its issuance. No amendments                                                                                                                                                                                                                                                            |
|   |                         |                      | Il be permitted beyond this period.  The Purchase Order will constitute the foundation of the                                                                                                                                                                                                                    |
|   |                         |                      | ontract.                                                                                                                                                                                                                                                                                                         |
| 3 | CONTRACT AGREEMENT      | 1. W                 | ithin SEVEN DAYS of receipt of the Purchase Order,                                                                                                                                                                                                                                                               |
|   |                         |                      | e successful Bidder shall sign and date its copy on each                                                                                                                                                                                                                                                         |
|   |                         | _                    | ge and return it to the Purchaser.                                                                                                                                                                                                                                                                               |
|   |                         |                      | opy of Purchase Order duly signed and dated by the                                                                                                                                                                                                                                                               |
|   |                         |                      | ccessful Bidder on each page shall constitute the ontract Agreement.                                                                                                                                                                                                                                             |
| 4 | CONTRACT DOCUMENTS /    |                      | l documents forming part of the Contract (and all parts                                                                                                                                                                                                                                                          |
|   | AMENDMENT TO CONTRACT   |                      | these documents) are intended to be correlative,                                                                                                                                                                                                                                                                 |
|   |                         |                      | mplementary and mutually explanatory. The Contract                                                                                                                                                                                                                                                               |
|   |                         |                      | all be read as a whole.                                                                                                                                                                                                                                                                                          |
|   |                         |                      | e order of precedence of the Contract documents shall as follows:                                                                                                                                                                                                                                                |
|   |                         |                      | Contract Agreement/Purchase Order                                                                                                                                                                                                                                                                                |
|   |                         |                      | All Forms/Annexures                                                                                                                                                                                                                                                                                              |
|   |                         | ` '                  | equipment/items and their requirement                                                                                                                                                                                                                                                                            |
|   |                         |                      | Supplier's Bid                                                                                                                                                                                                                                                                                                   |
|   |                         | ` '                  | Tender Document                                                                                                                                                                                                                                                                                                  |
|   |                         |                      | amendment or other variation of the Contract shall be                                                                                                                                                                                                                                                            |
|   |                         |                      | Sective unless it is in writing, is dated, expressly refers to                                                                                                                                                                                                                                                   |
|   |                         |                      | e Contract and is signed by a duly authorized presentative of each party to the Contract.                                                                                                                                                                                                                        |
|   |                         | 10                   | presentative of each party to the Contract.                                                                                                                                                                                                                                                                      |

REGISTRAR

#### ANNEXURE-I

# TECHNICAL SPECIFICATIONS

|                                                    | INICAL SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment Name                                     | High Temperature (1700 C Continuous Operation) Chamber furnace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                    | with PID Temperature Controller                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Chamber Volume (Volume of the Inner space)         | Greater than equal 4 litre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Geometry                                           | Box/Chamber furnace.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Weight                                             | Less than equal to 100 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Inner Dimension (Height x                          | 150 mm x 150 mm x 200 mm [Exact dimension should be specified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Width x depth) Approx.                             | in technical bid]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Outer Dimension                                    | Benchtop. [Exact dimension should be specified in technical bid]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum Temperature:                               | 1750°C - 1800 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Continuous Operation temperature (Up to 72 hours): | 1700°C or more                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Heating time to maximum temperature                | Less than equal to 65 minutes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Heating Element                                    | Molybdenum Disilicide (MoSi2) rods for fast heating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Thermocouple                                       | B-type or any other Pt-Rh thermocouple for operation range up to 1850 C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Temperature Controller  Temperature Uniformity     | <ol> <li>Digital PID based programmable temperature controller with LCD display.</li> <li>Temperature controllers should offer programmable control using up to 10 segment pairs, each segment comprising a temperature ramp followed by a dwell.</li> <li>Compatibility of temperature controller with RS485 or ethernet communication for data acquisition and control from a PC.</li> <li>Temperature control Accuracy of ± 1 °C or better &amp; Temperature input of Per Deg C or per Minute or better</li> <li>Temperature controllers should have in-built memory so that in an event of short period of power failure the temperature program can automatically re-starts and resumes where it was stopped.</li> <li>Uniform temperature of ±5°C within dimension of 90 mm (height) x</li> </ol> |
|                                                    | 80 mm (Width) x 120 mm (Depth).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Minimum cooling rate                               | 1°C/hour from 1700 °C to 600°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Maximum Power                                      | Not to exceed 6 kW at maximum temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Electrical Input                                   | 50 Hz, Single phase or Three phase.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Safety Features                                    | <ol> <li>Overtemperature protection with separate display and controller.</li> <li>Door positive break safety switch which isolates power to the heating elements when door is open.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Other requirements                                 | <ol> <li>Soft closing door, preferably lift up keeping hot surface away.</li> <li>Exhaust air outlet.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Accessories [Must]                                 | Protective Gas connection with Gas Inlet valve & outlet valve connection in furnace housing; Silicone sealing of furnace housing. Gas Supply System for One non-flammable protective gas (Ar / N2 / O2 / forming gas etc.) with shutoff valve and flow meter with control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                           | valve (volume 50-500 l/hr), gas outlet valve, piped and ready to                                                                       |  |  |  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|                           | connect.                                                                                                                               |  |  |  |
| Accessories [Optional]    | One set of heating element for replacement.                                                                                            |  |  |  |
| Outer Body configuration  | 1. Stainless steel outer jacket.                                                                                                       |  |  |  |
|                           | 2. Multi-layer Insulation using light-weight Refractory brick in-                                                                      |  |  |  |
|                           | side furnace chamber.                                                                                                                  |  |  |  |
|                           | 3. High-quality fibre insulation material should be used which are not classified as Carcinogenic according to TRGS 905,               |  |  |  |
|                           | class 1 or 2 for furnace for the high working temperature.                                                                             |  |  |  |
|                           | 4. Double wall outer shell casing with fan cooling for low exter-                                                                      |  |  |  |
|                           | nal temperature and high stability.                                                                                                    |  |  |  |
|                           | 5. Temperature of the outer surface should not be above 60°C at                                                                        |  |  |  |
|                           | 1600 °C operational temperature, conforming to BSEN                                                                                    |  |  |  |
|                           | 61010. During installation surface temperature of the outer                                                                            |  |  |  |
|                           | body will be tested before acceptance.                                                                                                 |  |  |  |
| Warranty                  | Machine should be come with a 3 year warranty. Annual Maintenance                                                                      |  |  |  |
|                           | Cost for next three years after warranty period is over should be                                                                      |  |  |  |
|                           | separately mentioned with the financial bid.                                                                                           |  |  |  |
| Acceptance Criteria after | 1. Compatibility of the temperature controller as per the requirement                                                                  |  |  |  |
| supply                    | specified above.                                                                                                                       |  |  |  |
|                           | 2. Maximum Temperature.                                                                                                                |  |  |  |
|                           | 3. Heating rate to Maximum temperature as mentioned above                                                                              |  |  |  |
|                           | <ul> <li>4. Temperature stability in dwell mode.</li> <li>5. Minimum Cooling rate of 1°C/hour at different temperature win-</li> </ul> |  |  |  |
|                           | 5. Minimum Cooling rate of 1°C/hour at different temperature window.                                                                   |  |  |  |
|                           | 6. Outer Body temperature as mention above.                                                                                            |  |  |  |
| Certificates              | The manufacturer must be an ISO9001 company & equipment Model                                                                          |  |  |  |
| Confidences               | must be with CE compliance. Please attach certificates.                                                                                |  |  |  |
| Delivery                  | 8-10 weeks from the date of PO                                                                                                         |  |  |  |

# FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with "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, 04.06.2020 and 16-09-2020)

| Date: S/o, D/o, W/o, Sesident 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) Order, 2017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017 -BE-II dated 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any and |  |  |  |
| That the local content for all inputs which constitute the said goods/services/works has been verified by me and I am responsible for the correctness of the claims made therein.                                                                                                                                                       |  |  |  |
| Tick ( ✓ ) and Fill theAppropriate Category                                                                                                                                                                                                                                                                                             |  |  |  |
| I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under "Class-I Local Supplier" category.                                                                                                                                                          |  |  |  |
| I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under "Class-II Local Supplier" category.                                                                                                                                                   |  |  |  |
| I/We[name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is less than or equal to 20% come under "Non-Local Supplier" category.                                                                                                                                                                   |  |  |  |
| For and on behalf of(Name of firm/entity)                                                                                                                                                                                                                                                                                               |  |  |  |
| Authorized signatory (To be duly authorized by the Board of Directors) <insert and="" contact="" designation="" name,="" no.=""></insert>                                                                                                                                                                                               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                         |  |  |  |

[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.]

#### <u>BID SECURITY DECLARATION FORM</u> (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

| Date: Tender No                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To (insert complete name and address of the purchase)                                                                                                                                                                                                                                           |
| I/We. The undersigned, declare that:                                                                                                                                                                                                                                                            |
| I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.                                                                                                                                                                                       |
| I/We accept that We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if l am /We are in a breach of any obligation under the bid conditions, because I/We                                                                      |
| a) Have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or                                                                                                                                         |
| <ul> <li>b) Having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.</li> </ul> |
| I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.          |
| Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)                                                                                                                                |
| Name: (insert complete name of person signing he Bid Securing Declaration)                                                                                                                                                                                                                      |
| Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)                                                                                                                                                                                                            |
| Dated on day of(insert date of signing)                                                                                                                                                                                                                                                         |
| Corporate Seal (where appropriate)                                                                                                                                                                                                                                                              |
| (Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)                                                                                                                                                  |
| Note:  This letter should be on the <u>letterhead of the quoting firm</u> and should be signed by a Competent Authority. Non-submission of this will lead to DISQUALIFICATION of bids.                                                                                                          |

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#### <u>UNDERTAKING BY THE BIDDER</u> (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

We here by accept all the Terms and Conditions of the Tender Document and strictly adhere to the same in the event of getting Purchase order. We also declare that the Technical and Financial Bids submitted by us has NO DEIVATION from the Tender Terms and Conditions.

We here by accept that the PRICES OF THE EQUIPMENT/ITEMS QUOTED IS AS PER THE CLAUSE NO.6 OF THE TENDER DOCUMENT. We hereby undertake that there are \_\_\_\_\_ pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any). We have submitted our principal's exclusive authorization letter which is specific for this tender \_\_\_\_\_ dated \_\_\_\_\_. No. Note: This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority. ANNEXURE-V FALL CLAUSE NOTICE CERTIFICATE (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT) This is to certify that we have offered the maximum possible discount to you in our Quotation No. dated (Please do not reveal the prices here, which will lead to outright rejection of your bid). The prices charged for the Stores supplied under tender should under no event be higher than the lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt, /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this. In case, if the price charged by our firm is found to be more, IIT Palakkad will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier. Note: This letter of authority should be on the <u>letterhead of the quoting firm</u> and should be signed by a

Competent Authority and having the power of attorney.