
	सामग्री प्रबंधन अनुभाग भारतीय प्रौद्योगिकी संस्थान, रुड़की रुड़की-247667, हरिद्वार, उत्तराखण्ड, भारत Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in	Material Management Section Indian Institute of Technology Roorkee-247667 (Haridwar) (Uttarakhand) (India) Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in	
	GSTIN-05AAALI0033R1Z5		
	PAN-AAALI0033R		

### निविदा प्रलेख / Tender Document

**No. 2024250816/MM-5/IITR/2024-25/Thermo-Mechanical Simulat/MIED/788**

Date of Uploading of Tender -<https://eprocure.gov.in/eprocure/app>

**25-Mar-2025**

Bids under two bid systems (Technical and Commercial) are invited Online at CPP Portal (<https://eprocure.gov.in/eprocure/app>) from the reputed manufacturer/authorized supplier/dealer for the following items. **Manual bids will not be accepted.**

वस्तु की तकनीकी विशिष्टताएँ / Technical Specifications of item:

Sr. No	Name of item / Specifications	QTY	UOM
1	Thermo-Mechanical Simulator with its controller and necessary hydraulic systems	Please Refer Annexure-VII	
(For Detailed Technical Specification Plz refer Annexure-VII)			
Global Tender Enquiry vide OM No.: F.No.32-27/2023-T.S.-I on dated: 21.03.2024			
नोट-1: कृपया वस्तु का मूल्य एवं कर अलग-अलग दर्शाए।			
Note-1: Please quote the Rate & Taxes of the item separately.			
Note-2: E-way bill is to be issued by the Venders/Transporter			
Note-3: The HSN / SAC Code of the item must be mentioned.			
For Reasonability of Rates, The firm must enclose the last two supply orders for the same item with Financial Bid (Annexure-III) only.			
Critical Date Sheet			
1	Published Date	25-Mar-2025	(17:00)
2	Bid Document Download / Sale Start Date	25-Mar-2025	(17:30)
3	Seek Clarification Start Date	25-Mar-2025	(18:00)
4	Seek Clarification End Date	2-Apr-2025	(16:00)
5	Pre Bid Meeting Date	Not Required	Not Required
6	Bid Submission Start Date	4-Apr-2025	(15:00)
7	Bid Submission End Date	22-Apr-2025	(15:00)
8	Bid Opening Date	22-Apr-2025	(15:30)

### Chapter-1 : Instruction to bidders

- A. The Tender should be enclosed with proper certifications like Agency Certification, Authorization certificate and/or Proprietary Certificate, as the case may be, in support of your offer.
- B. बोली का जमा किया जाना / **Submission of Bids:**  
The bids should be submitted online in two parts –
  - 1 (i) The Technical Bid (Annexure-I, II, VII) with EMD and Tender Acceptance Letter
  - (ii) The Financial Bid (Annexure- III & IV) & Price Bid in .XLS Format
Rates in .xls format will only be considered for Financial evaluation & further processing.

- 2 The bids should be on official pad preferably with GST Number of the firm
- 3 The quotations should bear full details and where possible may be duly supported with catalogues, pamphlets, literature, samples of the item/items as the case may be for comparing the quality and rates of the item(s).
- 4 The transportation cost, insurance charge etc., if any, percentage/ rate of GST or all other taxes and duties should be clearly mentioned.
- 5 The bids / rates / tenders should remain valid for a minimum period of 90 days from the date of opening.
- 6 **Since this purchase being for research purpose, I.I.T., Roorkee is registered in DSIR, New Delhi, it is therefore exempted from the payment of custom duty up to the limit of exemption as per Govt. Rules. The bidder should quote accordingly.**
- 7 The rates shall not be subject to escalation of any nature.
- 8 The rates quoted should be applicable to educational institutions and any cost advantage received in lieu thereof should be passed on the Institution.
- 9 While quoting / sending rates, the firm shall give an undertaking as per Annexure-II.

**C. विधि निक्षेप / Earnest Money Deposit (EMD):**

**The Technical Bid should accompany an EMD of value Rs. 5,00,000/- (Rupees Five Lakhs only) which should be deposited online into below mentioned account.**

**Details of IIT Roorkee Bank Account:**

**Account Name: NON MHRD GOVERNMENT FUND IIT ROORKEE**

**Account No.: 00000032685865515**

**Bank Name: STATE BANK OF INDIA**

**Branch Address: IIT ROORKEE, ROORKEE**

**IFSC Code: SBIN0001069**

**MICR: 247002094**

The Bidder will have to fill EMD details & provide the tender reference number in the narration/remarks while doing the payment as per quoted items and share the receipt of the same in pdf on CPP Portal (<https://eprocure.gov.in/eprocure/app>). The qualification in Technical bid will be subject to the submission of EMD in above mentioned account within schedule date and time as mentioned in the NIT. IITR shall not be responsible for any delay in submission of EMD.

In case the EMD is not received in above mentioned account within the aforesaid period i.e. before bid opening date & time as mentioned in NIT, the bid will be out rightly rejected.

**Exemption on submission of EMD will be given against valid MSME/NSIC certificate under goods (manufacturing) category.**

The earnest money shall be refunded to all the unsuccessful firms, without any interest after finalization of the contract.

EMD shall be refunded to the successful firms on receipt of PBG/Security Deposit. No interest is payable on the EMD to either the successful firms or the unsuccessful firms.

**D. निष्पादन बैंक प्रत्याभूति / Performance Bank Guarantee (PBG):**

In case the total order value of items becomes Rs.25.00 Lakhs or above, 5% of the order value in the form of Bank Guarantee or FDR pledged in favor of "The Registrar, IIT Roorkee" is required at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days. No interest shall be claimed by the bidder on the PBG submitted.

**E. बोलियो का खोला जाना / Opening of Bids:**

- 1 The Technical Bids will be opened online at CPPP Portal (<https://eprocure.gov.in/eprocure/app>)-Plz refer Critical Date Sheet
- 2 The Financial bids of only the Technically Qualified bidders will be opened. The date and time for opening the Financial Bid will be communicated to the respective firm later by the system (CPP Portal (<https://eprocure.gov.in/eprocure/app>))
- 3 Representatives of the firms(s) may be present at the time of openings, if they so desire.

**Chapter-2 : Conditions of Contract**

**F. ठेका देना / Award of Contract:**

The final selection of the bidder for the award of the contract will be made on the basis of the lowest commercial bid amongst the Technically Qualified Bidders.

**Prices of optional item will not be considered to identify lowest price bid.**

**G. पूर्व-आपूर्ति निरीक्षण / Pre-supply Inspection:**

- Authorized representative of the Institute shall make the final inspection before supply of the item at site of the firm, if required.
- H. वस्तु की आपूर्ति / Supply of Item:**
- The whole supply as per order shall have to be completed within the time mentioned in the order failing which the I.I.T. Roorkee shall have the right to accept or reject any quantity of items ordered. The firm will have to arrange for supply of the material in good condition.
- I. भुगतान की शर्तें / Payment Terms:**
- A. Payment in INR for supply of goods:**
- Where installation is not required: 100% payment will be made after satisfactory delivery of material duly certified by the HOD/P.I. **OR**
- Where Installation is required :100% payment will be made after satisfactory delivery and installation of the material duly certified by the HOD/P.I. **OR**
- 80% payment will be made on receipt and acceptance of goods and balance 20% on successful installation and commissioning duly certified by the HOD/P.I.
- B. Payment in INR for AMC/Service:**
- Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I.
- C. Payment in Foreign Currency for supply of goods:**
- Payment will be made as below after deducting Indian Agency commission (if any). IAC is payable in Indian Rupee after satisfactory installation.
- 90% of the LC amount shall be released on presentation of complete and clear shipping documents and 10% of the LC amount shall be released after the satisfactory delivery/installation/demonstration of the equipment duly certified by the H.O.D./P.I. at IIT Roorkee.
  - Payment through Wire transfer after receipt/installation of material in good condition.
- D. Payment in Foreign Currency for AMC/Service:**
- Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I. through wire transfer.
- J. दंड/Penalty:**
- A penalty of 0.5% of the total order value per week shall be levied for the delay subject to a maximum of 5% of the total order value.
- In case of the non-supply of the item/service after the acceptance of the work/supply order, EMD & PBG (if submitted) will be forfeited by the Institute. Also, the firm will be debarred from any future bidding process of IIT Roorkee for a period of a minimum two year.
- K. अप्रत्याशित घटना/Force Majeure:**
- For the purpose of and within the scope of contract by way of indication and not of limitation, the term "Force Majeure" shall mean acts of nature, strikes, Lockouts, or other industrial disturbances, act of public/enemy, wars, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms lightening, flood, washouts, civil disturbances, explosion and any other similar even not within the control of either party on which by exercise of due care and diligence neither party is able to prevent or overcome.
- L. मध्यस्थता / Arbitration:**
- If any dispute which may arise with respect to any term and condition or with respect to the interpretation of any term and condition of the Purchase Order/Work Order, which may be issued to the qualified and successful tenderer subsequently, the same shall be settled strictly in accordance with and in compliance of the Arbitration procedure which is mentioned descriptively in the Purchase Order/ Work Order.
- M. बोली अस्वीकृती के लिए मानदंड / Criteria for bid rejection:**
- If technical bid found without the required undertaking (Annexure-II)
  - If evidence of valid registration by the Competent Authority in case bidder/vender shares a land border with India.
  - If it found at a later date that any information given in the bids is Incorrect/false then the bid is liable to be disqualified/rejected.
  - Canvassing in any form will result to disqualification.
  - If "extra, as actual" etc. are mentioned against any of the price components in the bid the bid will be rejected.
  - If the firm quotes 'NIL' charges / consideration, the bid shall be treated as unresponsive and will not be considered.
  - If financial bid is found along with technical bid in pdf on CPP Portal, then the bid shall be rejected outrightly.
  - If any bidder submitting two/multiple bids for the same item of a tender, both/all the bids of that bidder will be outrightly rejected.

### Chapter-3 : Schedules of requirements

- N.** टिप्पणी / Note:
- 1 If the supplier/firm is manufacturer/authorized dealer/sole distributor/of the item, the certificate to this effect should be attached.
  - 2 Please note that the firms must submit the compliance Statement in an organized and structured manner in respect of all the specifications as per Annexure-VII with the supporting catalogue/leaflet of the firm. Annexure-I & II have to be submitted with Technical Bid and Annexure-III & IV with financial bid.
  - 3 It may also be noted that the tender bids received after the stipulated date & time or found incomplete and the tender bids containing false/incorrect information shall be summarily rejected. The Institute shall not entertain any communication in this regard, whatsoever.
  - 4 The firm is required to give its Bank Account details with IFSC for the purpose of making e-payment.
  - 5 The Indian Institute of Technology (IIT) Roorkee reserves the right to reject any quotation wholly or partly without assigning any reason.
  - 6 The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
  - 7 The decision of the institute in all matters relating to eligibility, acceptance, rejection of the bid will be final and binding on the applicants.
  - 8 IIT Roorkee discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.
  - 9 The firms should clearly mention (in the financial bid) the Harmonized System of Classification (HS code) defined by the Central Custom and Excise Board (Govt. of India)- for the item(s) involving import.
  - 10 **If the bid opening date happens to be a holiday, then the bid will be opened at 3.30PM of the next working day followed by the holiday.**
  - 11 If an agent submits bid on behalf of the Principal/OEM, the same agent can not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
  - 12 Indian Agent should submit the certificate from the Foreign Principal that they are the Authorized & Registered Indian Agent.
  - 13 The quantity shown against the item is approximate and may vary as per demand of the Institute at the time of placing order. Also, the final requirement of each line item will be decided by the Institute at the time of placing the PO.
  - 14 **Any corrigendum/addendum/errata in respect of the Tender Notice/ Enquiry letter shall be made available CPP Portal (<https://eprocure.gov.in/eprocure/app>). Hence prospective bidders are advised to visit the CPP Portal (<https://eprocure.gov.in/eprocure/app>) regularly.**
  - 15 Bidders shall be responsible for the correctness of the information provided in the enquiry letter/tender document. If it is found at a later date that any information given in the bid is Incorrect/false then the bid is liable to be disqualified/rejected.
  - 16 Before submission of bids, bidders should read the complete enquiry letter/tender document carefully and ensure that the bidders fulfill the eligibility criteria.
  - 17 In case the item/product is under rate contract with DGS&D or GeM, then Bidder should certify that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.
  - 18 **In Item Wise BoQ .xls sheet, In column M, leave blank for the item/service not provided/quoted by you. If quoted 0 then it will be considered that the item/service will be provided free of cost.**  
**Or**  
**In Item Rate BoQ .xls sheet, If quoted 0 for the items/services in column M then it will be considered that the items/services will be provided free of cost.**
  - 19 **As per Public Procurement (Preference to Make in India), Order 2017 preference shall be given to Make in India products for which it is mandatory to provide self certificate of local content as per Annexure-VI. For more details please refer: Order No.: P-45021/2/2017-PP (BE-II), DPIIT, Ministry of Commerce and Industry issued Dated: 16th Sept. 2020.**
  - 20 **The bidder must quote the applicable GST appropriately in the price bid format provided i.e BoQ in .xls format. In case column of GST left blank, quoted 0, or inappropriate then total quoted amount shows in column BB would be final inclusive of GST & other charges. The difference in GST amount payable – if any will be borne by the bidder. In this case, the basic unit prices will be suitably adjusted by the bidder – if required.**
  - 21 **The Institute reserves the right to rectify any discrepancy of this advertisement, if found later on. In case of any inadvertent mistake in the process which may be detected at any stage even after the issue of purchase order, the Institute reserves the right to modify/withdraw/cancel any communication made to the bidder.**

Chapter-5 : Price Schedule (to be utilized by the bidders for quoting their prices online in .XLS format at CPPP Portal (<https://eprocure.gov.in/eprocure/app>))

Plz. See Annexure- III, IV & Price Bid in .XLS Format

Chapter-6 : Contract Form

Purchase Order is used as Contract Form

Chapter-7 : Other Standard Forms, if any to be utilized by the purchaser and bidders

Tender Acceptance Letter

\*उप कुलसचिव (सामग्री प्रबंधन)  
Deputy Registrar (MM)

**\*Document Digitally Signed on <https://eprocure.gov.in/eprocure/app>**

**For any Clarification regarding technical specifications of item Please Contact:**

**Prof. Vedit Gaur,  
Department of  
Mechanical and Industrial  
Engineering,  
IIT Roorkee**

**Department of  
Mechanical and  
Industrial  
Engineering,  
IIT Roorkee**

**Ph.-01332-28-4909  
Email: [vidit.gaur@me.iitr.ac.in](mailto:vidit.gaur@me.iitr.ac.in)**

तकनीकी बोली

विस्तृत विवरण अनुपालन रिपोर्ट के साथ प्रस्तुत किया जाना है (अपने आधिकारिक लेटर हेड पर विक्रेता/फर्म द्वारा प्रस्तुत करने के लिए)

Detailed specification cum compliance report to be submitted with the Technical Bid  
(to be submitted by the vendor/firm on its official letter head)

**(For Detailed Technical Specification Plz refer Annexure-VII)**

Sr.No	Name & Required Specifications of Item(s)	Qty	UOM	Offered specifications of item(s) by the firm
1	Thermo-Mechanical Simulator with its controller and necessary hydraulic systems	Please Refer Annexure-VII		
	Firm's Profile :			
1	Manufacturer/Authorized Agent/Distributor/Dealer/Supplier(valid certificate must be attached)			
2	E-mail I.D. & Telephone/Mobile No. Detail of Bank A/C			
Note:	1. "offered specifications", should be filled up properly in the format provided as per Annexure-I.			
	2. Volume & Weight of the item should also be mentioned.			
	3. The HSN / SAC Code of the item must be mentioned.			

Signature: \_\_\_\_\_

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Seal of the Organisation

उपबंध / UNDERTAKING

Ref. No. No. 2024250816/MM-5/IITR/2024-25/Thermo-Mechanical Simulat/MIED/788  
Dated:- 25-Mar-25

I/We hereby certify that we or Our OEM are not from such a country which shares a land border with India or, if from such a country, We are registered with the Competent Authority. [Where applicable, evidence of valid registration by the Competent Authority is attached.}" **(For details Please refer annexure-V)**

That all the terms/conditions mentioned in the enquiry letter/tender against which the rates are being given are acceptable to the firm.

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

It is certified that the firm has never been black-listed from any Government Department. (State/Central Govt./ Autonomous/ PSU) in the last two years.

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Seal of the Firm/Agency

**Financial Bid**

(to be submitted by the vendor/firm on its official letter head)

Ref. No. No. 2024250816/MM-5/IITR/2024-25/Thermo-Mechanical Simulat/MIED/788  
 Date: 25-Mar-25

Rates :

Sr. No	Name of item / Specifications	Qty	UOM	Rate	Amount (INR) Or In Other Currency
1	Thermo-Mechanical Simulator with its controller and necessary hydraulic systems	Please Refer Annexure-VII		To be filled in .XLS sheet (attached)	
Total					To be filled in .XLS sheet (attached)
Grand Total Rs.					

1) Price of the items should be clearly mentioned if supplied Free of Cost.

## Terms &amp; Conditions:

- 1 Prices (if quoted in Rs.): FOR Department of Mechanical and Industrial Engineering, IIT Roorkee
- 2 Prices (if quoted in Foreign Currency): CIP/CIF New Delhi OR FOB/FCA/Ex-work
- 3 **Payment:** Should be clearly mentioned, As per clause-I of tender document.
- 4 Validity:
- 5 Delivery period:
- 6 Other charges:
- 7 **Warranty:**
- 8 Rejection: Equipment if found not as per the required specification would be rejected. As per clause-J of tender document.
- 9 Penalty Clause: In case of the non-supply of the item/service after the acceptance of the work/supply order, EMD & PBG (if submitted) will be forfeited by the Institute. Also, the firm will be debarred from any future bidding process of IIT Roorkee for a period of a minimum two year.
- 10 PBG: In case the total order value of items becomes Rs.25.00 Lakhs or above, 5% of the order value in the form of Bank Guarantee or FDR pledged in favor of "The Registrar, IIT Roorkee" is required at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days. No interest shall be claimed by the bidder on the PBG submitted.
- 11 **Order to be placed:**  
 (Name and complete address of the firm to whom Purchase/Work order is to be issued.)

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&amp;D or GeM.

Signature\_\_\_\_\_

Name\_\_\_\_\_

Designation\_\_\_\_\_

Seal of the Firm/Organization\_\_\_\_\_



Ref No: No. 2024250816/MM-5/IITR/2024-25/Thermo-Mechanical Simulat/MIED/788  
 Date: 25-Mar-25

1 Please tick (v) carefully the following as per requirement:

**Below certificates will be provided (if required)**

A Customs Duty Exemption Certificate (with following supporting document) [ ]

i) GATT Declaration  
 ii) Authority Letter for custom clearance  
 iii) Bank Release Order (BRO)  
 iv).....  
 v).....  
 vi).....  
 vii).....

2 Please fill up the following details:

A Complete address of Freight Forwarder, Air lines etc. in whose favor Bank Release Order (BRO) has to be issued:

M/s \_\_\_\_\_

B Complete address of Custom House Agent (CHA) / Clearing Agent in whose favor GATT / Authorization for custom clearance has to be issued:

M/s \_\_\_\_\_

C Complete address of the firm / supplier / CHA to whom original clearance documents will be sent:

M/s \_\_\_\_\_

3 Supplier has to submit above details with the financial bid wherever possible and has to send the above detail to mmistr@iitr.ac.in and our CHA well ahead in time prior to shipment.

4 **IITR CHA Address :**

**M/s Cwick (Import Consolidation), Private Limited,  
 L-II/101, New Mahavir Nagar Extension,  
 Outer Ring Road, New Delhi-110018,  
 E-Mail: info@cwickimport.com and followup@cwickimport.com,  
 Tel: +91-09313996082, +91-11-25996082, +91-11-25992781**

5 **Details of Institute :**

IEC CODE	0100000011	
AD CODE	0001069-2770325	S.B.I., IIT ROORKEE
	0303974-2770324	P.N.B. IIT ROORKEE

### Instructions for Bidders from a country which shares a land border with India

- 1 Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- 2 "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- 3 "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
  - a. An entity incorporated, established or registered in such a country; or
  - b. A subsidiary of an entity incorporated, established or registered in such a country; or
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d. An entity whose beneficial owner is situated in such a country; or
  - e. An Indian (or other) agent of such an entity; or
  - f. A natural person who is a citizen of such a country; or
  - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- 4 The beneficial owner for the purpose of (3) above will be as under:
 

In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who

  - (i) exercises control through other means.

**Explanation:**

  - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
  - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or

  - (ii) through one or more juridical person, has ownership of or entitlement to more than fifteen percent of capital or profits of the partnership;

In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who,

  - (iii) whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
  - (iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the

  - (v) trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- 5 An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- 6 In case of Works contracts, including Turnkey contracts, the successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.
- 7 Please refer: F.No.6/18/2019-PPD, Ministry of Finance, department of Expenditure Date: 23rd July 2020

### **Prequalification**

- 1 An undertaking by the firm that it has never been black-listed in the last two years must be attached along with the Bid, failing which the Bid shall be rejected. (As per Annexure-II)
- 2 True copy of Permanent Account Number.
- 3 Details of GST along with a copy of certificate to be attached.
- 4 Submission of samples if required, for all items indicated in the NIT. The make of items proposed to be supplied should be indicated and submitted along with the techno commercial unpriced bid without indicating the pricing components.
- 5 Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the tender document are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

(to be submitted by the vendor/firm on its official letter head)

Self-Certificate for Local Content

Tender No.: No. 2024250816/MM-5/IITR/2024-25/Thermo-Mechanical  
Simulat/MIED/788 Date: 25-Mar-25

We hereby certify that the items quoted by us against above mentioned tender no. has the local content as per below:

Local Content (in %):.....

Local Supplier Class:.....

The details of the Make in India items/parts used in the quoted products is/are as under:

- 1
- 2
- 3

The details of the location(s) at which the local value addition made/manufactured is/are as under:

- 1
- 2
- 3

We also understand, false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Signature:  
Name:  
Designation:  
Seal of the Firm/Organization:

## Instructions for Online Bid Submission

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e-Procurement at <https://eprocure.gov.in/eprocure/app>. Also, any modification on CPP portal in reference to below will be applicable. Therefore, for more details and update please refer CPP Portal (<https://eprocure.gov.in/eprocure/app>).

- 1 Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for tendering.
- 2 Bidder should register for the enrollment in the e-Procurement site using the "Online Bidder Enrollment" option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.
- 3 Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
- 4 Then the Digital Signature Certificate (Class III Certificates with signing key usage) issued by SIFY/nCode/eMudra etc. recognized by Controller of Certifying Authorities (CCA) India on eToken/SmartCard, should be registered.
- 5 The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
- 6 Contractor/Bidder may go through the tenders published on the site and download the tender documents/ schedules for the tenders.
- 7 After downloading/getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
- 8 Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
- 9 Bidder may log in to the site through the secured login by the user id/ password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.
- 10 Bidder may select the tender in which he/she is interested in by using the search option and then move it to the 'my tenders' folder.
- 11 From my tender folder, he may select the tender to view all the details uploaded there.
- 12 It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
- 13 Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.
- 14 The Bidders can update well in advance, the documents such as certificates, annual report details etc., under "My Space option" and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- 15 Bidder should submit the Tender Fee/ EMD as specified in the tender. Scanned copy of the same should be uploaded as part of the offer. (if applicable)
- 16 While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
- 17 The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the same. (if applicable)
- 18 The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or
- 19 The bidder has to digitally sign and upload the required bid documents one by one as indicated. Every act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception.
- 20 The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.

- 21 If the price bid format is provided in a spread sheet file like BoQ\_XXXX.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Priced-bid/BOQ template shall not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.
- 22 The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
- 23 After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and also be used as entry pass to participate in the bid opening.
- 24 The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e- Tender system. The bidders should follow such time during bid submission.
- 25 All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
- 26 Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers' public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 27 The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 28 The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 29 For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Parallely for any further queries, the bidders are advised to contact over phone: **0120-4001005** or send an e-mail to – [cppp-nic@nic.in](mailto:cppp-nic@nic.in).

**Tender Acceptance Letter**  
(To be given on Company Letter Head)

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**Date:**

**Sub: Acceptance of Terms & Conditions of Tender.**

**Tender No. 2024250816/MM-5/IITR/2024-25/Thermo-Mechanical Simulat/MIED/788**

Tender description:

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Dear Sir,

- 1 I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender No.' from the web site(s) namely:  
  
as per your advertisement, given in the above mentioned website(s).
- 2 I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.
- 3 The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
- 4 I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.
- 5 In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

**Yours Faithfully,**


**(Signature of the Bidder, with Official Seal)**

## List of items to be included in BOQ

1. Thermo-mechanical simulator with its controller and necessary hydraulic systems
  - 1.1. Load-Frame and Drive System
  - 1.2. Thermo-Mechanical Simulator
  - 1.3. System Controller
  - 1.4. Material Testing Software
  - 1.5. Test Fixtures
  - 1.6. Hydraulic System HPU
  - 1.7. Accessories
2. Installation & Training
3. AMC for 3 years after the expiry of warranty period
  - 3.1. AMC for 1st Year
  - 3.2. AMC for 2nd Year
  - 3.3. AMC for 3rd Year

**Currency:** USD, Euro, CHF, GBP, JPY, INR

**Item-Rate Tender but the price of individual items should be quoted.**

  
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## Technical specifications

<b>Thermo-mechanical simulator with its controller and necessary hydraulic systems</b>	
<b>1. General description</b>	
A 50 kN or better servo-hydraulic Fatigue testing machine for performing ambient/high/low-temperature cyclic Tensile and compression tests with the following features as per the specifications given afterward:	
<ul style="list-style-type: none"> <li>• Load Frame and Drive System</li> <li>• Thermo-Mechanical Simulator</li> <li>• Control and Measuring System</li> <li>• Material Testing Software</li> <li>• Test Fixtures</li> <li>• Other required features</li> </ul>	
<b>2. Loading Frame and Drive system</b>	
i)	The frame should be floor-based with the loading capacity as stated in item 1.
ii)	Should Include: $\pm 50$ kN, $\pm 100$ mm axial actuator with LVDT or better
iii)	It should consist of a two-column precision aligned high stiffness floor-mounted load frame with a fixed lower table and adjustable upper crosshead. Adjustment should be achieved using built-in hydraulic lifts, and the crosshead is secured in position by hydraulic clamps.
iv)	Integrated hydrostatic bearing actuator with either base-mounted actuator or crosshead mounted actuator.
v)	Should have close-coupled hydraulic servo-valve manifold capable of mounting at least two servo-valves and provision to manually shutoff the servo-valve.
vi)	Frame stiffness should be standard and capable of performing desired cyclic load tests as per the performance curve of the system.
vii)	One servo-valve of a minimum of 37 lpm and a second servo-valve of a minimum of 4 lpm should be provided for doing both high-cycle fatigue and low-cycle fatigue tests.
viii)	Fatigue-rated axial load cell should be of $\pm 50$ kN capacity or better with an overload capacity of the rated load. The accuracy range of the load cell should be indicated.
ix)	Both LVDT and Load Cell should be factory calibrated to full range, and the calibration certificate from any recognized organization should be provided.
<b>3. Thermo-Mechanical Simulator</b>	
i)	The system should be capable of performing thermo-mechanical cyclic loading tests.
ii)	<p>The inductive heating unit should have the following minimum specifications:</p> <ul style="list-style-type: none"> <li>• Maximum temperature: <math>1200^{\circ}\text{C}</math> or better</li> <li>• Typical Rate of heating: <math>10^{\circ}\text{C/sec}</math> or better</li> <li>• Typical Rate of cooling: <math>5^{\circ}\text{C/sec}</math> or better</li> <li>• Thermocouple type: At least K-type</li> <li>• HFR Generator power: 15 kW or better</li> <li>• HFR Generator nominal frequency: 300 kHz or better</li> </ul>
iii)	A suitable controlled cooling and heating mechanism should be provided with the system.
iv)	The simulator should be time-synced with the controller of the fatigue machine.
v)	Standard safety features should be provided with a provision of emergency stop.
vi)	The system should be capable of performing both in-phase and out-phase thermo-mechanical cyclic tests, i.e., simultaneous mechanical and thermal cyclic loads.

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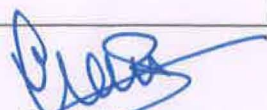


vii)	The Thermo-mechanical setup should be capable of performing tests for a longer duration, preferably in the order of days (> 2 days), without being interrupted.
<b>4. Control and measuring system - controller</b>	
i)	The controller should provide real-time closed-loop control with transducer conditioning and function generation to drive various types of servo-actuators and configurations, including axial & axial/torsional load units and multiaxial systems. The controller should accommodate these types of configurations.
ii)	The controller should have the necessary Input/Output modules to accommodate a wide variety of transducers essential for running the machine with a provision for expansion in slots in the future. Communication cables also be provided with the system as standard.
iii)	The controller should have all necessary safety interlocks.
iv)	The control and measuring system should be reliable for normal ambient temperature conditions.
v)	The controller should be provided with a suitable DUC card, cable, and adaptor so that different makes of extensometers, like Epsilon, MTS, etc., can also be used on this controller.
vi)	The controller should be provided with a suitable operator PC with a keyboard, mouse, UPS, and a monitor (preferably size more than 23"). The processor of the PC should be 13 <sup>th</sup> generation or better.
vii)	A manual for operating the controller should be provided in softcopy as well as hardcopy.
viii)	The wire diagrams of the controller circuit should also be provided, which are necessary for future customization of the test setup to interact with additional transducers.
<b>5. Material Testing Software</b>	
i)	Software to run this load frame through the controller in Master/Slave configuration is to be provided pre-installed along with a USB/CD and a license key with lifetime validity.
ii)	Software should accommodate provisions to run static and cyclic tests with Sine, square, triangle, ramp, hold, profile, and custom waveform for both thermal and mechanical loads. Pre-design templates should be provided to perform these tests along with a provision of further customization in the test procedure.
iii)	The ability to create custom test templates, export data to ASCII, and Report generation while the test is running should be present.
iv)	Pre-defined templates for tensile, compressive, bending, fatigue (load-controlled, strain-controlled), fatigue crack growth, fracture toughness, and thermo-mechanical tests should also be provided.
v)	Compatibility of existing High-Cyclic Fatigue (HCF) software to meet ASTM E466-07 and D3479-07 load-controlled high-cycle fatigue test standards or any other internationally recognized standard.
vi)	Compatibility of existing Low-Cyclic Fatigue (LCF) software to meet ASTM E606-04 and D3479-07 strain-controlled, low-cycle fatigue test standards and Advanced Low-Cyclic Fatigue software to run constant-amplitude, strain-controlled fatigue testing in compliance with ASTM standards or any other internationally recognized standard. Ability to allow user-defined hold times.
vii)	Compatibility of existing Fatigue Crack Growth software to meet ASTM E 647-08 test standards. It should also feature online load displacement, crack length vs. cycles, da/dN plotting, test shutdown, and test parameter changes during the test execution or any other internationally recognized standard.
viii)	Compatibility of existing K <sub>IC</sub> Fracture Toughness software to meet ASTM E 399-08 test standard, CTOD Fracture Toughness software to meet ASTM E 1290-07 test standard, and J <sub>IC</sub> Fracture Toughness software to meet ASTM E 1820-08 test standard or any other internationally recognized standard.
ix)	A template for the thermo-mechanical fatigue test should also be as per the existing ASTM standard ASTM-E2368-10(2017) or any other internationally recognized standard.

  
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x)	The software should be provided on a USB or a CD with a license file and a possibility of re-installation in the future on a different PC using the same license file.
xi)	The software should be compatible with Windows 10, and the software updates/upgrades should be provided by the company at no extra cost in the future for at least 10 years or a lifetime.
xii)	Software should have standard templates for all the different procedures that can be conducted on the machine with the existing module and the future possible modules.
<b>6. Test Fixtures</b>	
i)	$\pm 50$ kN fatigue-rated hydraulic wedges compatible with existing hydraulic grips.
ii)	The wedges should be able to grip flat specimens of thickness 0 – 15 mm or higher and round specimens from 5 – 20 mm diameter or better.
iii)	The wedges should have proper cooling arrangements for high-temperature, and thermo-mechanical fatigue tests up to the capacities specified in point 2 and point 3.
<b>7. Hydraulic system HPU</b>	
i)	A suitable and compatible HPU for hydraulic components with a minimum flow rating of 60 lpm and noise level below 65 dB. The HPU should be energy efficient and compact with minimum space requirement and should be supplied with a chilling unit and necessary attachments with the chiller.
ii)	The HPU should be provided with standard and necessary safety features and interlocks.
iii)	The motor rating should be sufficient to meet the desired performance of the fatigue machine to its full-scale capability.
iv)	The operating pressure of the HPU should be such that the maximum load can be maintained for a longer period (several days, 10+).
v)	The HPU should be equipped with a proper attachment so that it can be coupled with another load frame in the future of the same make.
vi)	The HPU should be supplied with all the necessary consumables like oil, O-rings, hoses, oil filters, etc., required to be in operational conditions.
vii)	A set of at least two oil filters and O-ring kits should be provided with the HPU as a standard.
<b>8. Operator Safety Features</b>	
i)	The machine should have standard safety features to prevent collision/contact of jigs, a warning light/sound/indicator if jigs are too close, and a subsequent interlock.
ii)	The machine should have interlock protection against overload, excess stroke length, etc.
iii)	A provision of emergency stop push switch.
<b>9. Other item(s)</b>	
i)	Fracture Mechanics Grips for CT specimen or any other ASTM standard specimen.
ii)	3-point bend test fixture
iii)	The supplier should provide separately on their letterhead or with the supporting brochure, a complete drawing of the total space required for the proper functioning/installation of the setup and the necessary as well as safe operating conditions for the same.
iv)	Standard C-clamps and other tool kits like torque wrenches for nuts and bolts, Allen keys, screwdriver sets, etc. that are required in frequent regular maintenance of the machine should be provided.
v)	A pair of extra studs for the load cell and the piston, along with spiral washers, should also be provided.
vi)	A complete software manual with a few tutorials should be provided in softcopy and a hard-bound copy. The drawings of all the wedges and test fixtures should be provided.
vii)	Onsite training of the software and machine operation should be arranged by the supplier after the installation with a provision of video recording.

  
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## Terms and conditions

1. A minimum of **two-year comprehensive warranty** for the complete system is to be provided as standard and shall cover defective materials and defective workmanship. Additional warranty for further years may be quoted separately.
2. The bidder should submit **purchase orders and performance certificates of similar equipment** supplied to IITs/NITs or any other well-recognized Institute in India or outside India. If possible, then please submit the performance satisfactory certificated from the concerned Institutes. Specifically, if supplied to IIT Roorkee, then provide details of equipment, name of lab, and professor-in-charge.
3. A pre-dispatch inspection of the setup along with the onsite demonstration of the system's capabilities to the PI, should be accommodated by the supplier.
4. Bidder shall submit the following documents with the technical bid:
  - a. The compliance certificate in the same order as stated in the technical specifications
  - b. A printed catalog/leaflet of the equipment in support of the compliance certificate, failing which their bid will be rejected. Any deviation from the specifications mentioned must be pointed out. **Any compliance stated by the bidder without any documentary evidence will also be treated as non-compliance.** No further query with the vendor will be raised for the submission of incomplete documents once the bid is opened.
  - c. Bidder should provide a list with complete details of previously installed equipment of similar type in India. They should also be prepared to arrange a demonstration, if asked, during the technical evaluation before the commercial bid opening.
  - d. The bidder should have proper documents for the price justification of the machine, past purchase orders, etc.
5. If the bidder quotes in foreign currency (**USD, Euro, CHF, GBP, JPY** only), then the shipment should be quoted **DAP IIT Roorkee** and provide installation free of charge. If the bidder quotes in local currency (INR), then the shipment should be quoted **FOR IIT Roorkee**.
6. **Air freight** is the preferred mode for the delivery of the item.
7. Any specific requirement or assistance related to the installation/transportation of the equipment should also be stated clearly. The requirement not stated at this stage will be treated as the responsibility of the supplier.
8. The **offloading of the equipment** will be done in the presence of an engineer from the supplier's firm and will be solely in the scope of the supplier. A separate charge may be quoted for the same if required.
9. A layout drawing with the necessary outlets for the machine should be provided. Any necessary for the air-conditioned environment should be stated or supplied with the machine as standard.
10. A separate quotation for AMC for 3 years, beyond the warranty period, must be provided. It should be noted that the prices of AMC will **NOT** be considered to identify the lowest price bid.
11. Few **spares** frequently like pressure rings, consumables, etc., prone to failures, should be provided with the equipment free of charge and a commitment to provide support for consumables for at least 10 years.
12. The firm should be equipped with well-trained engineers to offer post-warranty maintenance and service support.
13. Details of the nearest service support in India from Roorkee that the firm can offer should be provided along with the office contact details.
14. The bidder should quote separately for all other necessary accessories obligatory for the complete installation and successful demonstration of the equipment. Any accessory not stated here and obligatory for running of equipment will be treated as a standard accessory to be supplied with the machine.
15. The bidder should visit the installation site before and after the tender application to state precisely the challenges involved in the installation of the machine, if any.

*14/1/2020*

*Premishu*

*Rajesh Ranjan*

*21/1/2020*

*Nikhil*

*Rajesh Ranjan*

*25/3/25*

*[Signature]*

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