इंटरनेशनल एडवांस्ड रिसर्च सेंटर फॉर पाउडर मेटलर्जी एंड न्यू मटेरियल्स) एआरसीआई(, बालापुरपीओ



हैदराबाद

INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI), BALAPUR P.O 500005

Tender No. SC20240132/PO

Date:18.12.2024

e-TENDER DOCUMENT

SUPPLY, INSTALLATION AND COMMISSIONING OF LASER FLASH BASED THERMAL DIFFUSIVITY AND THERMAL CONDUCTIVITY MEASURING EQUIPMENT

1.	EMD	INR 7,50,000/-
	(Earnest Money Deposit/Bid Security)	
2.	Tender processing Fee	INR 2500+18% GST (INR 2950/-)
3.	e-Tender document published date	18.12.2024
4.	Bid documents can be accessed from	https://eprocure.gov.in/eprocure/app
5.	Clarification start date and end date	18.12.2024 to 20.12.2024
6.	Bid submission start date and time	23.12.2024 at 09:00 Hrs.
7.	Bid submission end date and time	08.01.2025 before 15:30 Hrs.
8.	Online Bids opening date and time (for COVER -1 Tender Fee and EMD/Bid Security)	10.01.2025 at 10:00 Hrs.

इंटरनेशनल एडवांस्ड रिसर्च सेंटर फॉर पाउडर मेटलर्जी एंड न्यू मटेरियल्स) एआरसीआई(, बालापुरपीओ हैदराबाद

INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI), BALAPUR P.O 500005

Instructions to Bidders

Table of Contents

SI. No.	Description	Page No.
1.	Notice for inviting e-tender	3-6
2.	Special Instructions for online bid submission	7-9
3.	Part – 1: Technical Bid -Terms and conditions	10-14
4.	Part – 2: Tender Fee and Earnest Money Deposit-Terms and Conditions	15-16
5.	Part – 3: Price Bid -Terms and Conditions	17-19
6.	Scope of Supply (Annexure – I)	20-22
7.	Technical Compliance Statement (Annexure – II)	23
8.	Declaration of Local Content (Annexure III)	24
9.	Tender Acceptance Letter (Annexure IV)	25-26
10.	Certificate by the bidder (For Tenders) (Annexure V)	27
11.	Certificate of Declaration (Annexure VI)	28
12.	Checklist	29-30

इंटरनेशनल एडवांस्ड रिसर्च सेंटर फॉर पाउडर मेटलर्जी एंड न्यू मटेरियल्स) एआरसीआई(, बालापुरपीओ हैदराबाद

INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI), BALAPUR P.O 500005

NOTICE FOR INVITING OPEN E-TENDER

International Advanced Research Centre for Powder Metallurgy and New Materials (henceforth referred to as ARCI) is an Autonomous Research and Development Centre of Department of Science and Technology (DST), Government of India with main campus at Hyderabad and with operations in Chennai and Gurugram.

Scope of Supply: Supply, installation and commissioning of Laser Flash based thermal diffusivity and thermal conductivity measuring equipment.

You are invited to submit your most competitive <u>online</u> quotation through CPP Portal (Central Public Procurement Portal) website https://eprocure.gov.in on or before the prescribed due date. Manual bids shall not be accepted except for the original documents, if any mentioned in this tender.

This Organization invites Two Bid System bids from Class I and II local suppliers, as per DPIIT Order No. P-45021/2/2017-PP(BE-II) dated 04.06.2020, for the following items through the eProcurement System of National Informatics Centre that enables the Tenderers to download the notice inviting tenders and submit the bids online through Central Public Procurement Portal of Government of India (https://eprocure.gov.in/eprocure/app).

Please quote only in Indian Rupees as per GFR 2017, amended Rule 161 (iv) and Public Procurement (preference to make in India) Order 2017, with your lowest rate and shortest delivery period as per the following terms. As per Govt of India, Ministry of Commerce and Industry, DPIIT Order No. P-45021/2/2017-PP(BE-II) Dated 04.06.2020 only Class I Local Supplier having local content equal to or more than 50% and Class II local supplier (having local content more than 20% but less than 50%) are invited for this tender. Non local supplier (having local content less than or equal to 20%) are not eligible to apply. Local Content means the amount of value added in India which shall, unless otherwise prescribed by the nodal ministry be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties). class I local supplier/class II local supplier are required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for Class I local supplier/Class II local supplier, as the case may be. They shall also give details of the locations(S) at which local value addition is made.

Format for self-Certification is given in annexure IV of tender document. Any non-compliance in this regard, the bid will not be considered in the category.

As per Ministry of Finance, Department of Expenditure Order No. F.No:6/18/2019 PPD Dated 23.07.2020, 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 Department of Promotion of Industry and Internal Trade (DPIIT). Format of certificate for the same as given in Annexure VI of the tender document. "Bidder "for the purpose of this order Including the term Tenderer, consultant, vendor or service provider in certain context(s) means any person or firm or company including any member of consortium or joint venture (that is an association of several persons or firms or companies), every artificial juridical person not falling in any of the description of bidders stated here in before, including any agency, branch or office controlled by such person participating in procurement process. Bidder from a country which share a land bordered with India, "For the purpose this order means:

- 1. An entity incorporated, established or registered in such a country; or
- 2. A subsidiary of an entity incorporated, established or registered in such a country; or
- 3. An entity substantially controlled through entities entity incorporated, established or registered in such a country; or
- 4. An entity whose beneficial owner is situated in such a country; or
- 5. An Indian (or other) agent of such of an entity; or
- 6. A natural person who is a citizen of such a country; or
- 7. A consortium or joint venture where any member of consortium of Joint Venture falls under any the above.

Tender Enquiry No: (Case No.) SC20240132/PO dt: 18.12.2024

- Last date and time of submission of Tender online (Tender Fee, EMD/Bid Security, Technical Bid, and Price Bid): 08.01.2025 before 03:30 PM.
- Item to be delivered at:

International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana, India.

• Estimated Delivery period: 12 Weeks from date of Purchase Order.

Validity of Bid

Quotation should have minimum validity of **90 days** from the date of opening

Last date for submission: 08.01.2025 before 15:30 Hrs.

The bidders are required to submit soft copies of their bids electronically on the CPP Portal before the last date stated above using valid Digital Signature Certificates.

All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.

It may further be noted that the bidders offering imported products will fall under the category of Non-local suppliers.

(O.M no. P-45021/102/2019-BE-II-Part (1) (E-50310), DPIIT, dated 4th March, 2021, Ministry of Commerce and Industry)

Bidders those who are interested to participate in this tender may follow the guidelines issued by Department for Promotion of Industry and Internal Trade, Public Procurement Section, Govt. of India.

(O.M No. P-45021/2/2017-PP (BE-II) Government of India, DPIIT, Ministry of Commerce and Industry, dtd 04.06.2020)

A Techno Commercial team from buyer organization will visit the facility & verify the declaration particulars.

Clarification on bid

Bidders can seek clarification as per the schedule start and end date through email IDs given below:

For Technical clarifications: gsivakumar@arci.res.in

For Commercial clarifications: ramesh.e@arci.res.in

"NO REQUEST FOR CLARIFICATION OR QUERY SHALL BE NORMALLY ENTERTAINED AFTER THE CLARIFICATIONS END DATE" Should ARCI deem it necessary to amend the bidding documents as a result of a clarification, it shall do so by hosting the clarifications and amendments on the website of ARCI/CPP Portal only for the benefit of other prospective bidders. Hence, prospective bidders are requested to follow the websites regularly.

Opening of the tender

- Only the Technical bid shall be opened online on the date of the tender opening.
 Price bids of only those firms will be considered for opening whose offer would meet all tender requirements including compliance to technical specifications and has passed all tender conditions/ technical evaluation.
- After opening of the price bids, detailed comparative statement will be generated online and the finalization of successful bidder will be done on L-1 (lowest price) basis as per CPP Portal.

Award of Contract

Contract will be awarded to successful bidder and a copy of the award of the contract will be uploaded in CPP portal after finalizing the tender.

DISQUALIFICATION OF TENDERS:

The tenders are liable for rejection in the following circumstances:

- If they are not in line with the terms and conditions of this tender notice.
- Conditional quotations
- Incomplete tenders
- Tenders without Tender Fee and EMD.
- Tenders submitted through Fax or e-mail.
- If two bid system is not followed.
- If price bid enclosed alongwith technical bid cover (Within Same Cover).
- The Firm need to quote all the charges /prices as per the tender requirement, if any firm quote nil charges/consideration, the bid shall be treated as Unresponsive bid and will not be considered.

Director, ARCI reserves the right to accept or reject any or all tenders either in part or in full or to split the order without assigning any reasons there for.

The original hard copies of EMD (if any) should be submitted on or before the due date to the following address:

International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana

IMPORTANT NOTE: Amendment, Corrigendum if any to this tender document, WILL BE HOSTED ONLY IN ARCI WEBSITE and CPP Portal and no separate Press Notification will be issued. Bidders are advised to visit our website and CPP Portal regularly to know such details.

Director, ARCI, Hyderabad

SPECIAL INSTRUCTIONS FOR ONLINE BID SUBMISSION:

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e-Procurement are at https://eprocure.gov.in/eprocure/app. The bidders must carefully follow the instructions.

- Possession of valid Digital Signature Certificate (DSC) and enrolment/registration of the contractors/bidders on the e-procurement/e-tender portal is a prerequisite for e-tendering.
- Bidder should do the enrolment in the e-Procurement site using the "Click here to Enroll" option available on the home page. Portal enrolment is generally free of charge. During enrolment/registration, the bidders should provide the correct/true information including valid e-mail-id. All the correspondence shall be made directly with the contractors/bidders through e-mail-id provided.
- Bidder need to login to the site through their user ID/ password chosen during enrolment/registration.
- Then the Digital Signature Certificate (Class III Certificates with signing key usage) issued by NIC/SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on e-Token / Smart Card, should be registered.
- The DSC that is registered only should be used by the bidder and should ensure safety of the same.
- Contractor / Bidder may go through the tenders published on the site and download the required tender documents/ Annexures for the tenders he/she is interested.
- After downloading / getting the tender document/ Annexures/ Appendices, the Bidder should go through them carefully and then submit the documents as asked, otherwise bid will be rejected.
- If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account the corrigendum / addendum published before submitting the bids online.
- Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the e-Token/ Smart Card to access DSC.
- Bidder selects the tender which he/she is interested in by using the search option & then
 moves it to the 'my tenders' folder.
- From my tender folder, he selects the tender to view all the details indicated.
- It is construed that the bidder has read all the terms and conditions before submitting
 their offer. Bidder should go through the tender Annexures and appendices carefully and
 upload the documents as called for; otherwise, the bid will be rejected.
- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ Annexure and generally, they can be in PDF/xls/rar/zip/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. 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 can be uploaded, if permitted. Bidders Bid documents may be scanned with 100 dpi with black and white option. However if the file size is less than 1 MB the transaction uploading time will be very fast.

- Bidder should take into account the corrigendum / addendum published from time to time before submitting the online bids.
- 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.
- While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- Bidder should submit the EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission due date & time for the tender. Scanned copy of the instrument should be uploaded as part of the offer.
- The bidder has to select the payment option as offline to pay the EMD as applicable and enter details of the instruments
- The details of the DD/BC, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
- The bidder has to upload the relevant files required as indicated in the covered content. In case of any irrelevant files, the bid will be rejected.
- 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 Price Bid/ BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- The bidders are requested to submit the bids through online etendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- After the bid submission (i.e after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number, given 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 will also act as an entry pass to participate in the bid opening date.
- The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.
- 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. The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 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.
- For any queries regarding e-tendering process, the bidders are requested to contact
 as provided in the tender document. For any further queries, the bidders are asked to
 contact over phone as mentioned in the CPP website or send an email to cpppnic@nic.in.

PART-1 TECHNICAL BID - TERMS AND CONDITIONS

I. Vendor qualification criteria:

- a) Original Equipment Manufacturer (OEM) or authorized representatives of OEM only can quote for this tender. Vendor should submit authorization letter valid on tender date from OEM along with the quotation.
- b) Latest release of the model should be quoted.
- c) All items should be with part number and full description.
- d) All the relevant documents should be uploaded at the time of tender.
- e) OEM is required to submit a letter of commitment at the time of quote for supply of spares and also for efficient and prompt after sales service of the equipment for a minimum period of 10 years after the guarantee/warranty period under mutually agreed terms and conditions.
- f) Failure to meet any of the above vendor qualification criteria may lead to disqualification of tender at technical evaluation stage itself and vendor's quotation may not be considered for procurement.

II. Pre dispatch inspection

- a) The manufacturer/supplier of the unit shall demonstrate, at their works during predispatch inspection by ARCI personnel and shall satisfy all the technical specifications as described in the tender document.
- b) The manufacturer /supplier of the unit shall demonstrate the features as provided in **Annexure-I (Scope of supply).**
- c) All the consumables, raw materials, required for the above demonstration should be arranged by the tenderer.
- d) All the utilities and manpower required for the demonstration shall be arranged by the supplier only.

III. Acceptance criteria:

- a) The manufacturer/supplier's trained engineer should carry out installation and commissioning of the unit at ARCI.
- b) The entire functionality of the equipment according to the specifications should be demonstrated at ARCI.
- c) The manufacturer/supplier of the unit shall demonstrate the features as specified in **Annexure I (Scope of Supply).**

d) Infrastructure required for the above demo will be arranged by ARCI.

IV. Other aspects:

A. PATENT RIGHTS:

The Supplier shall indemnify ARCI against all third-party claims of infringement of patent, trademark or industrial design rights, copy rights arising from use of the Goods or any part thereof in India.

B. Training:

The manufacturer shall impart training in the operation and preventive/breakdown maintenance of the complete unit including sub-parts during installation to ARCI personal at ARCI.

C. Utilities/Infrastructure for installation:

- a) Supplier shall indicate all the required utilities/infrastructure such as power, water, gas, etc including power backup requirements.
- b) Supplier shall provide overall dimensions of the Unit along with floor area/height of the site or building, including foundation details if any, for accommodating the Unit.
- c). The operating environment for the Unit including temperature and humidity control, anti-vibration, EMI, EMC etc. should be indicated.
- d). If any charges extra are payable for Installation and Commissioning, the same should be included in the total cost of the stores as per the price schedule (BOQ).

D. Manuals, software and other drawings etc.:

The following documents (in English) shall be provided along with the Unit in both hardcopy and softcopy forms:

- a) Operation and maintenance manuals, troubleshooting procedures, calibration methods, wiring and other schematic diagrams, list of components, spares and accessories.
- b) If there are any bought-out systems and components, manuals should be provided in hardcopy and softcopy forms for the same.
- c) Calibration certificates for sensors, instruments, gauges, display units etc. must be provided.
- d) Software upgrades pertaining to the supplied Unit should be provided free of cost as and when new versions are released by the OEM for the next 10 years from the date of final acceptance.
- e) Safety and security instruction manual should be provided.

E. After-sales service:

The supplier shall guarantee efficient and prompt after-sales service including the supply of the spares for a minimum period of 4 years after the guarantee/warranty period or 5 years after the discontinuation of the model whichever is later under mutually agreed terms and conditions.

F. Bought-out items:

All bought-out sub-systems and components if any should be of reputed make conforming to international standards. Make and details of all bought-out sub-systems and components shall be specified.

G. General Quote:

The breakup for accessories or sub system(s) /attachments apart from the basic system, if any, should be quoted separately.

Bidders shall download the Schedule of Quantities and Prices in the XLS Format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price Bid) only. Bidder shall quote the prices in the given format BOQ_XXXX in excel sheet for online submission of bids. The Technical bid also shall be uploaded in CPP Portal in the appropriate place.

It is required to take utmost care for uploading Schedule of Quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.

<u>If the template of Schedule of Quantities & Prices file is found to be modified/</u> corrupted in the eventuality by the bidder, the bid will be rejected.

H. Technical compliance statement:

The vendor should provide item wise details against each and every specification. Deviations if any are to be highlighted. Suppliers are required to provide the Technical Compliance Statement as per Annexure — II while submitting the Technical Bid (Cover 2).

I. Guarantee/warranty:

- a) The Unit shall be under warranty for a period of one year from the date of <u>final</u> acceptance by ARCI.
- b) Please quote for additional warranty for 2 years in separate sealed cover while doing evaluation of the tender it will not considered to arrive at L1 bidder.
- c) During the warranty period, all software and hardware updates shall be provided free of cost. Items, if any, excluded from the warranty shall be explicitly mentioned by the supplier.

- d) The Unit shall be guaranteed for satisfactory performance for 01 year from the date of installation, commissioning and acceptance at ARCI. The manufacturer shall replace premature failure of parts during the guarantee period at their cost and risk.
- e) Upgradation of software or any associated modules shall be provided without any charges atleast for a period of ten (10) years

J. Delivery/ time schedule:

The offer shall be accompanied by a detailed delivery time schedule showing the individual time schedule required for submission of initial equipment layout drawings, foundation drawings along with load data, main equipment and sub-assembly drawing, shipment schedule of the equipment as well as the time for installation, commissioning and performance tests.

K. Packing:

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit. In order to maintain safety of the equipment, we prefer to have wooden crating with adequate cushion inside for transportation of any goods. The material has to be dispatched with International standard packing to withstand rigors, and to avoid any transit damages.

L. Insurance:

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

For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "Warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after dispatch **or upto installation and commissioning of stores whichever is later. The Supplier shall arrange Insurance F.O.R, ARCI Hyderabad.**

O. General instructions:

- a) The bidder should submit the scanned copy of the Technical Bid for online submission. No brochures/leaflets etc. should be submitted in loose form. Please indicate page nos. on your quotation. The price should not be mentioned anywhere in this document.
- b) Price Bid should be submitted online only and no other mode of submission is acceptable.
- c) The technical offer should be complete to indicate that all products and services asked for are quoted. Each page of the bid and strikeout/corrections shall be duly signed and stamped by the bidder. Unsigned Tenders are liable to be rejected. Failure to comply with this requirement may result in the bid being rejected.
- d) The purpose of certain specific conditions is to get or procure best product/service etc. for ARCI. The opinion of Technical Committee shall be the guiding factor for technical short listing.

PART- 2

TENDER FEE AND EARNEST MONEY DEPOSIT/BID SECURITY

- 1. Bid should be accompanied by Tender Processing Fee of INR 2500 +18%GST (INR 2950/-) in the form of Account Payee Demand Draft drawn on in favour of Director, International Advanced Research Centre, Payable at Hyderabad. Tender Fee is not refundable. Bids submitted without tender processing fee will not be considered for further processing.
- 2. Bid should be accompanied by EMD **INR 7,50,000/-** from Indian bidders in the form of Demand Draft or Insurance Surety Bonds or Banker's Cheque or Fixed Deposit Receipt lien registered or Bank Guarantee (**including e-Bank Guarantee**) from any of the Indian Commercial banks in favour of **Director, International Advanced Research Centre, Payable at Hyderabad** or payment online like RTGS/NEFT/ECS in an acceptable form.
- 3. If TDR is submitted towards EMD, the same shall be obtained in favor of "<u>Director</u>, <u>International Advanced Research Centre</u>," with lien registered for the corresponding period duly discharged by the tenderer.

The details of transaction for Tender Fee and EMD viz Name of Bidder firm, tender description, Transaction ID/No. of Transfer, Transaction date, Amount of Transaction, Name of Bank, Address of Bank shall be furnished by the TENDERER ON THEIRLETTERHEAD SEPARATELY ENCLOSED IN COVER-1 (Online and Offline) ALONG WITH TENDER.

Online Payment Account details are as follows:

Details of Account Holder

Name of the Institution	International Advanced Research Centre for Powder Metallurgy & New Materials		
Name of Account Holder (As per Bank Record)	ARCI TECHNOLOGY PROGRAM FUND		
Account Number of above account	1849101016974		
Complete Contact Address	RCI Road, Balapur, Opposite Balapur Vilage, Hyderabad -500005		
Telephone No	0091-040-24452361		
Fax No	0091-040-24442699		

Bank Account Details

Bank Name	CANARA BANK
-----------	-------------

Branch Name	Kanchanbagh
Beneficiary's Name	ARCI Technology Program Fund
Complete Contact Address	Kanchanbagh, Hyderabad 5000059
Telephone No	040-23438704
9- Digit Code No of Bank & Branch	500015032
Account Number	1849101016974
Account Type	Savings Account
(SB/Current/Cash/Credit/Etc	
IFSC Code No of Bank	CNRB0001849
PAN Number	AAAAI0324C
TIN Number	36980207289
Service Tax Number	AAAAI0324CST001
GSTIN Number	36AAAAI0324C1ZG
E.Mail	fao@arci.res.in

- 3. No interest is payable on EMD.
- 4. The EMD shall be valid for a minimum period of three months from the date of closure of the bid.
- 5. <u>Tender Fee & EMD:</u> Bidder registered with National Small Industries Corporation (NSIC) or Udyam registration or any other body specified by Ministry of Micro, Small and Medium Enterprises as MSMES registered as Manufacturers or Startups as recognized by Department of Industrial Policy and Promotion (DIPP), Govt of India for the tendered item are exempted from payment of tender fee and Earnest Money Deposit (EMD) subject to submission of valid documentary evidences throughout the time of the contract. Copies of MSME, NSIC registration certificates and other supporting documents should be submitted along with bid. Failure to submit the required documents shall lead to rejection of bid.

6. Refund of EMD:

Bid securities of the unsuccessful bidders should be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. However, in case of two packet or two stage bidding, bid securities of unsuccessful bidders during first stage i.e., technical evaluation etc should be returned within 30 days of declaration of results of first stage i.e., technical evaluation etc.

7. Forfeiture of EMD:

EMD of tenderer will be forfeited, if the tenderer withdraws or amends its tender or derogates from the tender in any respect within the period of validity of its tender. Further, if the successful tenderer fails to furnish the required performance security within the specified period, its EMD will be forfeited.

PART- 3 PRICE BID – TERMS AND CONDITIONS

PRICE BID SHOULD BE SUBMITTED ONLINE ONLY AND NO OTHER MODE OF SUBMISSION IS ACCEPTABLE.

Bidders shall download the Schedule of Quantities and Prices in the XLS Format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price Bid) only. Bidder shall quote the prices in the given format BOQ_XXXX in excel sheet for online submission of bids. The Technical bid also shall be uploaded in CPP Portal in the appropriate place.

It is required to take utmost care for uploading Schedule of Quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.

<u>If the template of Schedule of Quantities & Prices file is found to be modified/</u> corrupted in the eventuality by the bidder, the bid will be rejected.

I. Terms and Conditions:

- a) Tenders with any condition, including conditional rebate, are liable to be rejected.
- b) The Price Bid/BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- c) The bidder should carefully read the BOQ columns and feed the price as per the price breakup asked in the BOQ. If the quoted price is not as per the price breakup given in the BOQ, the concerned price bid will be rejected.
- d) The unit price of materials is basic cost. GST, packing, forwarding, freight and insurance amount if any may be provided separately as per the BOQ.
- e) Unit price should include main equipment (total system) including computer hardware and software as per the specifications in scope of the work.
- f) Total price should be F.O.R. ARCI, Hyderabad.
- g) The bidder should quote single price for the equipment in the price bid (excel BOQ) taking into account all the items as per their specifications mentioned in SCOPE OF WORK.
- h) Printed conditions of the vendor submitted with the tender will not be binding on ARCI.
- i) The commercial bids of only the technically qualified bidders shall be considered for further processing.
- j) Commercial Bid (prices quoted) should not be enclosed in the technical bid envelope. If the price quote is submitted with technical bid, the tender is liable to be rejected.
- k) The Director, ARCI reserves the right to accept the offer in full or in part or reject summarily or partly thereof.

II. Tenderer to inform himself fully

The tenderer is required to carefully examine the documents enclosed and get fully aware himself as to all conditions and matters which may in any way affect the works or the cost thereof, before submitting his offer.

If the tenderer finds any discrepancies, omissions, or contradictions in the documents or is in doubt as to the true meaning of any part, he shall at once contact in writing for an interpretation/clarification from the Director, ARCI.

The tenderer shall however not be entitled to any extension of time for submission of his tender on such account, unless the Director extends the due date.

III. Payment terms:

Subject to deduction of taxes at source, if any,

95% of the goods cost + 100% taxes will be paid after receipt of the goods at our site subject to inspection & acceptance of the goods/works/commissioning by ARCI authorities.

Balance 5% will be paid against submission of Performance Bank Guarantee (i.e. 5% of the total order value excluding taxes etc.) from a Nationalized /Scheduled Bank valid till the expiry of the warranty period OR after completion of warranty period from the date of successful commissioning of equipment at ARCI.

It is proposed to establish authorized payment Letter of credit through our bank towards payment of item. The same may please be noted while framing your commercial Terms & Conditions of your tender.

IV. Inspection Certificate (IC)

The end user will provide inspection certificate after receipt of materials based on which payment will be released.

V. Liquidated damages (LD)

As time is the essence of the contract, the work period mentioned in the Service Order should be strictly adhered to. Otherwise, LD clause will be applicable /enforced. If the supplier fails to provide the services mentioned in the order within the stipulated period, the Director, ARCI shall without prejudice to any other right or remedy available in law, levy a penalty for such delay by way of liquidated damages, at 0.5% per week of delay or part thereof, subject to a maximum of 10% of contract value. Such LD will be deducted from any amount due or which may become due to the supplier.

VI. Order acceptance

The successful bidder, on award of contract/order, must send the contract/order acceptance in writing, within 15 days of award of contract.

VII. Award of contract:

ARCI reserves the right at the time of award of Contract to increase or decrease the quantity of items specified in the Schedule of Requirements without any change in price or other terms and conditions.

VIII. Corrupt or Fraudulent Practices:

ARCI requires that the bidders who wish to bid for this project have highest standards of ethics. ARCI will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract. ARCI may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time it is determined that the vendor has engaged in corrupt and fraudulent practices during the execution of contract.

IX. Interpretation of the clauses in the Tender Document/Contract Document:

In case of any ambiguity/dispute in the interpretation of any of the clauses in this Tender Document, Director, ARCI's interpretation of the clauses shall be final and binding on all parties.

X. Arbitration

In case of Dispute or difference arising between the Purchaser and a supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to arbitrator appointed by the Director, ARCI. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

The venue of the arbitration shall be the place from where the purchase order/contract is issued.

Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree.

SCOPE OF SUPPLY

SUPPLY, INSTALLATION AND COMMISSIONING OF LASER FLASH BASED THERMAL DIFFUSIVITY AND THERMAL CONDUCTIVITY MEASURING EQUIPMENT

Scope of Work:

- Supply, Installation and Commissioning of Laser Flash based apparatus to measure Elevated Temperature Thermophysical properties namely, thermal diffusivity, specific heat and thermal conductivity in the full temperature range of room temperature to 2000°C for diverse materials, and coated specimens.
- The system should be capable to measure the above thermophysical properties for solid, liquid, powder, paste specimens

Acceptance Criteria:

 Based on the validated data measurements from specimens provided by ARCI namely, 3 types of thermal barrier coatings with varied thickness, aerogel, sintered ceramics, Thermoelectric generator substrate, Electrodeposited Ni composite, PCM solid/liquid

Parameter	Description				
	Description				
Temperature range	RT – 2000 deg C with temperature accuracy of \pm 0.1				
5 7	deg C and high isothermal stability of 0.02 deg C/min				
Furnace Type	Vertically mounted Electrical Furnace with				
	vacuum/inert atmosphere for suitable measurements at				
	varied temperature ranges. Suitable oil free or oil trap				
	based vacuum pumps, gas ports and attachments to				
	be included				
Heating rate	0.01 to 50 K/ min				
Temperature measuring System	Single Pyrometer or suitable thermocouple over the				
	entire range				
Thermal Diffusivity measurement	trange 0.01 mm^2/sec to 1000 mm^2/sec with high				
	accuracy & repeatability of ± 3% over the entire				
	temperature range				
Thermal Conductivity measurement range 0.1 W/(m.K) upto 1000 W/(m.K)					
•	capacity through comparison method				
Sample Dimensions for measure	ment Circular specimens of diameter 8mm, 10 mm,				
	12.7 mm; Square specimens of size 8mm,				
	10mm, 12.7 mm with 0.1 mm to 6 mm thickness				
Sample Holder	Sample Holder made from Graphite to accommodate				
	above sizes & shapes				
	10 mm – 4 Nos, Other sizes – 2 Nos each				
	Sample holder for liquid samples				
Detector	Highly sensitive IR-detector for measuring temperature				
	rise on back surface; To be used over the entire				
	temperature range				
InSb IR detector or suitable detector for measurement from RT to 2000 °C					

Laser System

- Neodymium: YAG or Neodymium: Glass laser system, Class 1 or equivalent laser source
- Variable energy pulse adjustable to measure for metals, alloys, ceramics and composites
- Pulse Mapping for finite pulse correction
- A glass fiber optics or suitable methodology must be implemented for an improved homogenization of the laser beam
- Programmable up to 99 Number of shots per segment depending upon the materials/coatings
- Uniform and sharp Pulse width with possible mapping: The system must be equipped with a pulse mapping device to measure the actual pulse shape for each individual laser pulse

High Data acquisition rates and considerable number of measuring points for detector signal and laser pulse shape

Time accuracy Software

< 0.1µs

- Software shall operate the instrument in the fully automatic or manual mode
- The software should allow a data export in different export formats including pdf, xls, tif, jpg or bmp.
- The software should include at least four (4) baseline corrections (including shifted baseline). It should be possible to modify and change the baseline correction in subsequent analysis.
- The software should have a model for correction of radiation heat transfer simultaneously to finite pulse and heat loss corrections
- The software should have a heating function which allows for rapid heating of the furnace outside the scope of a measurement, e.g., for thermal pre-treatment of samples or for cleaning purposes
- The software should allow <u>specific heat determination</u> on the <u>basis of comparative method</u>. For specific heat (Cp) calculation, the pulse has to be integrated over the time period to measure the energy input. This means the real pulse energy is considered.
- The software must have the capability of correcting the experimental data for the finite pulse width of the laser and <u>radial and facial heat loss simultaneously</u> (based on a non-linear regression routine and an improved heat diffusion model (Cape-Lehman)

Pulse Correction
Baseline Correction

Exponential, Numerical, Center of gravity

Baseline Correction Linear, Horizontal, Vertical shifted Detection area & Illumination area Variable between 0 to 100%

Inbuilt Software models

Parker / Cowan5 / Cowan 10 / Azumi / Clark-Taylor /

Cowan / Two and Three Layer samples / Specific heat

capacity

Warranty

The Unit shall be under warranty for a period of one

year from the date of <u>final</u> acceptance by ARCI. Additional extended warranty 2 years can be provided.

Reference samples

Graphite, Stainless Steel, Copper, Ceramics (lowest thermal conductivity) with calibration data and of standard size

- Supplier scope should include all necessary accessories required such as Water cooling unit (plumbing & connections, compact with minimum work space, silent operation, high cooling capacity, inbuilt tank and least power consumption levels), State-of-the-art Desktop PC (i5 14th generation or better, minimum 1 TB SSD, 32 GB RAM or more, atleast 24" display monitor or above, with preloaded Windows 11 Professional or latest operating system, Colour Laserjet Printer, with warranty upto 3 years), voltage stabilizer, Uninterrupted power supply with spike arrestor
- All the accessories such as purge gas pipes, water input pipes, connectors, Basic Tool Box etc
- Essential spares: Set of all cables such as power cable, communication cable and other required cable should be provided, Graphite spray Can – 2 Nos
- The Supplier shall quote separately for the continuous supply of consumables, spares and accessories for the trouble-free operation for a period of 10 years
- The Supplier shall evolve a standard operating procedure and shall be documented in English, which is to be supplied along with the equipment for trouble-free operation. The documentation should contain Programming Manuals, all electrical, electronic circuits and PLC controls, operation and maintenance of all accessories employed within the overall testing facility must be provided
- Supplier shall provide the trouble-shooting manuals and also provision for remote access of the equipment from the manufacturer's site, if necessary
- The supplier shall provide pre-acceptance inspection and training for 3 days for atleast two ARCI personnel covering the operational functionality aspects, installation, preventive maintenance, testing by evaluating a standard specimen and atleast 2 sets of specimens from ARCI. The training shall include operation of LFA equipment and maintenance of electrical, electronic, control system and mechanical parts. Suitable specimens of standard dimensions will be provided by ARCI during the pre-acceptance inspection.
- Supplier shall provide continuous technical guidance, and support to ARCI staff, as and when new developments or modifications are made available by the Supplier and implement upgradation, if available, on mutually agreed terms and conditions
- It is desirable for the Supplier to have a Service Centre within the country for quick service response
- Electrical power supply at site shall be, Single Phase 230 volts ± 10%, Frequency 50 Hz ± 2%,3 wire system or Three Phase 415 volts ± 10%, Frequency 50 Hz ± 2%

TECHNICAL COMPLIANCE STATEMENT

Technical bids will be evaluated based on following aspects:

1.1. **Compliance statement**: Technical should be provided as a table (representative format given below), containing the following columns: i) ARCI's specifications, ii) the corresponding number/ value for the specification in the instrument offered by the supplier, iii) a statement whether there is compliance or not, iv) explaining deviation(s) if any, and v) offered item no/ model no/ part no. Please provide related officially published brochures, data sheets and application sheets.

Specifica tion format number	ARCI's Specificat ion	Corresponding number/ value for the specification in the instrument offered by the supplier	Complia nce yes/no	Deviation, if any, to be explained here	Offered item/ model/part number, if any
1					
1.1					
1.2					
•					
etc.,					

Suppliers are required to provide this Technical Compliance Statement while submitting the Technical Bid (Cover 2). Any deviations from the tender should be mentioned clearly.

NOTE: Please ensure all the relevant boxes are marked YES/NO against each column.

<u>(ON COMPANY LETTERHEAD)</u>

(In case the procurement value is less than or equal to Rs.10 Crores declaration to be given in Bidder's/Company's letter head and if more than Rs. 10 Crores declaration to be issued from the statutory auditors or cost auditor of the company (in case of companies from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies).

To,
THE DIRECTOR,
INTERNATIONAL ADVANCED RESEARCH CENTRE FOR
POWDER METALLURGY AND NEW MATERIALS (ARCI),
Balapur P.O , Hyderabad-500 005.

Subject: Declaration of local content and compliance of Public Procurement (Preference to Make in India) Order 2017 and its amendments regarding.

SI	Name of the	Category	Currenc	Local	Locatio	Countr	Comply
N	Goods/Services/W	of the	y (must	Conten	n at	y of	to the
0	orks	Supplier	be in	t	which	Origin	above
		(I/II/III)	INR)	(%)	value		referred
					Addition		rule
					is made		(Yes/No)

- "Local Content "means the amount of value added in India which shall, be the total
 value of the item being offered excluding net domestic indirect taxes) minus the
 value of the imported content in the item (including all customs duties) as a
 proportion of the total value, in percent.
- False declaration will be in breach of Code of Integrity under Rule 175(I)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for upto two years as per Rule 151 (iii) of the General Financial Rules along with such other actions permissible under Law.

Date:	
Place:	

Signature with Date and Stamp of the Bidder

TENDER ACCEPATANCE LETTER (TO BE GIVEN ON COMPANY LETTER HEAD)

To,
THE DIRECTOR,
INTERNATIONAL ADVANCED RESEARCH CENTRE FOR
POWDER METALLURGY AND NEW MATERIALS (ARCI),
Balapur P.O, Hyderabad-500 005.

POWDE	R METALLURGY AND NEW MATERIALS (ARCI), P.O, Hyderabad-500 005.
Sub: Acc	ceptance of Terms & Conditions of Tender.
Tender R Name of	Reference No: Tender/Work/Service:
Dear Sir,	
1.	I/We have download /obtained the tender document(s) for the above mentioned Tender/Work from the website(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 & Conditions of the tender documents from Page Noto(including all documents like annexures, schedules, etc.,) which form part the contract agreement and I/We shall abide hereby the Terms & Conditions/ Clauses contained therein.
3.	The Corrigendum(s) issued from time to time by your department/organization too have also been taken into consideration, while submitting this acceptance letter.
4.	I/We hereby unconditionally accept the tender conditions of the above mentioned tender document(s)/corrigendum(s) in its totality/entirety.
5.	I/We hereby declare that our firm has not been blacklisted/debarred by any Govt.department/Public Sector undertaking.
6.	I/We Certify that all information furnished by our firm is true&correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/organization shall without giving any notice or reason

7. I/We declare the following information provided are correct to the best of my knowledge. Name and Address of the Bidder 1 2 Manufacturer/Dealer/Agent 3 **Contact Person** 4 Phone 5 **Email** 6 Mobile Number **GST No** 7 8 PAN No UTR No/DD No(In case of online transfer of 9 Tender Fee) if any UTR No/DD No(In case of online transfer of 10 EMD) if any Warranty, if any 11 Delivery period 12 13 **Payment Terms** PO to be placed in favour of 14 15. Bank details copy

Your faithfully,

Date:	
Place:	Signature with Date and Stamp of the Bidder

<u>CERTIFICATE BY THE BIDDER (FOR TENDERS)</u> <u>(ON COMPANY LETTER HEAD)</u>

I have read the clause regarding restrictions on procurement from a bidder of a Country which shares a land border with India. I certify that this bidder is not from such a company or, / if from such a country, has been registered with the competent Authority (copy of the registration Certificate enclosed). I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered.

Date:	
Place:	

Signature with Date and Stamp of the Bidder

CERTIFICATE OF DECLARATION (ON COMPANY LETTER HEAD)

I	hereby	certify	that	we	M/s
	(name	and address of	the firm) is ne	ther blackliste	d by any
Central/State	Government/Public	: Undertaking / In:	stitute nor is any	criminal case r	egistered
/ pending ag	ainst the firm or its	owner / partners	anywhere in In	dia.	
I also	certify that the abo	ve information is	true and correc	t in every aspe	ect and in
any case at	a later date it is fo	ound that any de	etails provided a	above are inco	rrect any
contract give	n to the above firm	may be summari	ly terminated ar	nd the firm blac	cklisted.
Date: Place:		Signaturo wi	th Date and S	tamp of the F	Riddor
riace.		<u>Signature Wi</u>	ui pate ailu 3	<u>tanip oi tile e</u>	<u> </u>

CHECK LIST

BIDDER HAS TO FILL IN THE CHECK LIST GIVEN BELOW

(Following documents are to be submitted online and manual as part of Technical Bid. Bidders are requested to state Yes / No against each column)

SI. No.	Description	Online Submission
1.	If bidder is not an original equipment manufacturer, authorization letter attached.	
2.	Whether Tender Fee and EMD Submitted	
3.	Whether Technical Bid Submitted	
4.	Whether Commercial Bid (BoQ) Submitted	
5.	Vendor BANK DETAILS, PAN / GSTIN Number from concerned authorities	
6.	Details of Products and Components	
7	Whether declaration form signed and Submitted (Scanned Copy by online)	
8.	Whether warranty clause mentioned	
9.	Whether all pages of tender document signed on all pages along with bidders seal	
10.	Payment terms	-
11.	Optional items, if any (Separate cover enclosed with Technical bid)	
12.	HSN/SAC CODES for the item mentioned in technical bid	
13.	Technical Compliance Statement (Annexure II)	
14.	Declaration of Local Content (Annexure III)	
15.	Tender Acceptance Letter (Annexure IV)	
17.	Certificate by the bidder (For Tenders) (Annexure V)	

18.	Certificate of Declaration (Annexure VI)	
19.	Brochure/Catalogue/Datasheet	
20.	Previous Purchase Orders (if any)	
21.	Statutory Registration Certificates	
22.	This Checklist	

NOTE:

- 1. Please ensure all the relevant boxes are marked YES/NO against each column.
- 2. Tenderers must ensure that all the required documents indicated in the Tender documents are submitted without fail. Tenders received without supporting documents for the various requirements mentioned in the tender document are liable to be rejected at the initial stage itself.