Only domestic (India-based) manufacturers can participate

This is a Request for Quote (RFQ) from the Indian Institute of Science (IISc), Bangalore, for the supply and installation of **PLD Deposition System with Load Lock and Accessories, Equipped for RHEED** at the Materials Engineering department, IISc Bangalore. The bidder must comply with OM no. P-45021/2/2017-PP(BE-II) from the government of India, dated 16th September 2020. The quote should come only from the Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.

1	Section 1	Bid Schedule	
2	Section 2	Eligibility Criteria	As specified by IISc
3	Section 3	Terms and Conditions	As specified by IISc
4	Section 4	Specifications	Technical specifications
5	Section 5	Technical Bid	Annexure 1: Bidder details
			Annexure 2: Declaration regarding experience of bidder
			Annexure 3: Declaration regarding the clean track record of the bidder
			Annexure 4: Declaration of acceptance of tender
			Annexure 5: Terms and conditions. Details of the item quoted
6	Section 6	Commercial bid	Quotation with Price, Technical specifications of the Equipment

Statutory condition: The committee can cancel the tender at any time.

Section 1 - Bid Schedule

1	Tender No	MTE/2025-26/BP/003
2	Tender Date	24th December 2025
3	Item Description	Supply and installation of **PLD Deposition System with Load Lock and Accessories, Equipped for RHEED**
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson Office Materials Engineering Department Indian Institute of Science, Bangalore 560012
6	New Last Date & Time for submission of tender	14th January 2026; 5:30 PM
7	For further clarification	Dr. Bhagwati Prasad Room No: C201, Materials Engineering Department Indian Institute of Science, Bangalore 560012 Email: bpjoshi@iisc.ac.in Phone: +91 80 22932679

Section 2 – Eligiility Criteria

Prequalification criteria:

1. The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)
2. The Bidder should belong to either class 1 or class 2 supplier distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter.
    a) Class 1 supplier: Goods and services should have local content of equal to or more than 50%.
    b) Class 2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.
3. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to Class-1 supplier.
4. MSME can seek exemption to some qualification criteria. IISc follows GFR2017 for such details
5. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
6. a) Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
    b)The quotations should be on FOR-IISc Bangalore basis in INR only.

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.

2. Tender should be submitted in two envelops (two bid system).
   a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications.

      The technical proposal should contain a technical compliance table with 5 columns.
      i. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
      ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
      iii. The third column should describe your compliance with a "Yes" or "No" only. Ensure that the entries in column 2 and column 3 are consistent.
      iv. The fourth column should state the reasons/explanations/context for deviations, if any.
      v. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details, compare your solution with that of your competitors or provide details as requested in the technical requirements table below.

   b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, **as per the format of quotation provided in tender**, and other commercial terms and conditions.

3. The technical bid and price bid should each be placed in sparate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.

4. The SEALED COVER superscripting tender number / due date & should reach Chairperson Office, Materials Engineering Department, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.

5. All queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.

6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).

7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.

8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.

9. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

a. To accept OR reject lowest tender or any other tender or all the tenders.
b. To accept any tender in full or in part.
c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer shall be valid 90 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.

2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.

3. Pre- qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.

4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.

5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:

    a. Non-submission of complete offers.

    b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).

    c. Receipt of bids in open conditions.

6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.

7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.

8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post processing, optional items, recommended spares, warranty, annual maintenance contract.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum 3 years (year wise breakup value should be shown in the commercial bid) including free supply of consumables, spare parts and data analysis software from the date of functional installation. If the instrument is found to be defective, it has to be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly
extended.

G) Annual Maintenance Contract:

An annual maintenance contract for a period of atleast 2 years post warranty should be provided on completion of warranty period. The AMC costs will not be considered towards classifying the domestic nature (class 1 or class 2) of the vendor (see eligibility criteria in section 2).

H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.

2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.

3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

I) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered,

installed and made functional within 90 days from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed.
The bidder should also arrange for technical training to the local facility technologists and users.

J) Payment Terms:

100% payments (except AMC) will be released after completion delivery and satisfactory installation subject to TDS as per rules. AMC cost (if ordered), after completion of warranty period) will be released on half-yearly basis at the end of each six months subject to satisfactory services. The AMC will be comprehensive. Price basis must be on FOR-IISc Bangalore basis only.. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarentee is provided.

K) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

L) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

M) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.

2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.

3. The bidder may visit the installation site before submission of tender, with prior intimation.

4. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

Section 4 – Technical Specifications

A: PLD Deposition System with Load Lock and Accessories, Equipped for RHEED

Detailed Specifications:

PLD Chamber:

1) Chamber: 14" dia SS304/**SS316** cylindrical chamber with ports for sample holder (from top), Target carousel from bottom, laser, viewing, gas entry, pump, gauges, etc, with manual SS gate valve. The chamber should be compatible with the RHEED attachment.

2) Multi-Target (5 to 6) with raster capability, bottom-mounted. Target flange 8" OD (CF 150) flange mounted with programmable stepper motor and DC/AC motor. Programmable Controller for stepper motor and DC/AC motor. The controller can index the targets as well as raster/rotate them in front of the laser beam. The number of targets is 6 in number. The controller also interfaces with the laser for multi-layer deposition (5V TTL signal). A contamination shield allows only one target to be exposed to the laser at one time. All magnetic coupled movements, RS232 connection for Windows-based operation with software. (PC in user scope).

3) Sample stage: Radiation or resistive heater for operation in oxygen. Temperatures of at least 900 °C should be attainable (1" dia sample). Manual rotation and up-down movement (in situ) to align with the load lock and RHEED. This is flange mounted with an inbuilt manual shutter, which is magnetically coupled. The heater electrodes will be water-cooled to prevent heating of the electrodes due to high current (about 80amps) through the electrodes (optional). A PID programmable temperature controller will be provided for the heater. The water chiller of the ion milling will be used for this purpose. A trigger option that synchronizes with the RHEED camera and laser, and sample transfer is preferred.

4) Steel frame to support the chamber and other instruments. Adjustable leveling legs and locking castors.

5) Beam bending optics for bending the laser beam and delivering it onto the target. This consists of 2 mirrors to move the beam up and then into the chamber. Mirrors will be suitable for 248nm and are of 2" dia. Laser focusing and programmable laser beam raster capability and focusing for large area deposition. SiO2 disc-based intelligent window (optional).

6) Manual gate valve to isolate turbo pump as well as throttle the pump. The gate valve should be able to handle a higher pressure differential between the load lock and the chamber. Differential of at least 10^-4 on the load lock and 10^-8 in the chamber when the valve is closed.

7) Hipace 300 with dry backing pump, gate valve and Pirani gauge. Cold cathode gauge etc. [Turbo (300 l/s) and scroll pump for the main chamber, small turbopump (60 l/s) with a diaphragm pump or alternative (optional). Pirani gauge and cold cathode gauge (1E-9 mbar)- main chamber - with CF40 flange wide range gauge for load lock - with KF 25 attachment.]

7) Digital Mass flow controller 0-200SCCM (multi-gas) with display and valve 1-2 no (MFC -2/3 ports). There should be provision of N2, Ar, O2 gases with a solenoid valve for complete gas cut-off
(RHEED, Laser , gases laser mounting table etc in user scope)

Loadlock Chamber

Load lock mounted on frame and connected to PLD as well as Ion milling system through CF 63 manual gate valves and sample transfer through manual magnetic transfer arms. Gate valve with pressure rating (>10^4) should separate the chamber from load lock.

The load lock also connects to a user-provided glove box with an isolation valve and a UHV Sputtering Chamber. Pumping of load lock using backing pump of PLD system and comes with connecting hardware and manual isolation valves

Installation, integration, and demonstration of the system at the user site.

Ion milling Chamber:

1) 12" dia chamber mounted on a frame with water cooled rotating (motorized) substrate holder, ports for viewing, quick access port, port for load lock, ports for pumps and gauges and port for Ion source

2) Water chiller 1 KW for cooling substrate

Optional Items:

1) Hipace 300 turbo pump with DUO Vane 12 rotary pump and Full range gauge along with controller, display cables, etc for ion miller chamber.

2) KRI make KDC 40 ion source with a power supply

3) Mass flow controller 0-10sccm for Argon for gas inlet, along with shutoff valve

Other requirements:

1. Drawings of the system need to be sent for approval before the start of manufacturing.
2. A schematic should be assent along with a bid identifying all components.
3. All imported parts airway bill copy and original invoice from OEM to be submitted if requested.

4. Warranty and AMC after warranty: The quoted price includes 1 year warranty from the date of installation. AMC (Excluding parts) rates for 1st, 2nd,3rd and 4th year after warranty are quoted separately.

5. It needs to be declared that all parts quoted are of the latest technology and there will support the system after warranty (on a payment basis) with required spares etc.

6. The PLD System should be compatible with the RHEED attachment.

7. Load Lock should have options to attach the UHV sputtering system and Glove Box with separate ports.

8. The system should have a user-friendly design for easy serviceability and troubleshooting. Components if not available under the consumables should be easily accessible for maintenance as and when needed.

9. The system should incorporate the necessary safety interlock to permit the safe operation of the equipment.

10. All utilities for the installation of the system should be clearly stated.

11. The supplier and/or their representative should undertake to install and commission the system at the purchaser's laboratory in the event of order and demonstrate satisfactory performance. The installation and commissioning should be provided by the supplier or their representative. The supplier or their representative should have well-proven service capability on a similar system. Free delivery and installation and demonstration.

12. All the technical literature/catalogs of various sub-systems in English must accompany the quotation. In the event of an order, the manufacturer should undertake to supply all the documents including a complete system description, operation and service manuals, and full description of hardware and software used. A hard copy of all manuals including operations, maintenance, and service manual along with a drawing of main equipment and all its accessories should be provided.

13. The company should have a minimum of 3 nos. of supply references for the PLD and Ion Milling System installed in India in government-funded institutions. The detailed Indian User reference list should be provided with contact details etc. The Company should provide 3 satisfactory certificates and/or a user list in R&D or academics with their contact details from the users in India that have 2 or more years of usage experience. Please note that the successful installation certificate is not considered a satisfactory certificate. The past service and satisfactory feedback from the manufacturer shall be one of the main criteria for decision-making.

14. The company should have Trained Service engineers to provide after-sales support. Names of the trained engineers should be included with the quotation.

B. Training and demonstration

Training on the usage of the machine (hardware and software) must be demonstrated by the successful bidder at the bidder's cost to the end-users at IISc, Bangalore.

Section 5- Technical Bid

The technical bid should furnish all requirements of the tender along with all annexure in this section and submitted to

The Chairperson,
Attn: Dr. Bhagwati Prasad
Materials Engineering Department
Indian Institute of Science
Bangalore – 560012, India

Annexure-1:

Details of the Bidder
The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License, (attach attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name
Designation, Seal Date:

Annexure-2:

Declaration regarding experience

To,
The Chairperson,
Attn: Dr. Bhagwati Prasad
Materials Engineering Department
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXX
Dated: XXXXX

Supply and installation of a **PLD Deposition System with Load Lock and Accessories, Equipped for RHEED** at Materials Engineering Department, IISc Bangalore.

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ---- years of experience in supplying and installing Confocal systems.

(Signature of the Bidder)
Printed Name
Designation, Seal Date:

Annexure-3:

Declaration regarding track record

To,
The Chairperson,
Attn: Dr. Bhagwati Prasad
Materials Engineering Department
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXX
Dated: XXXXX

Supply and installation of a **PLD Deposition System with Load Lock and Accessories, Equipped for RHEED** at Materials Engineering Department, IISc Bangalore.

Sir,
I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following

Sl.No	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully
(Signature of the Bidder)

Name
Designation, Seal

Date:

Annexure – 4:

Declaration for acceptance of terms and conditions

To,
The Chairperson,
Attn: Dr. Bhagwati Prasad
Materials Engineering Department
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXX
Dated: XXXX

Supply and installation of **PLD Deposition System with Load Lock and Accessories, Equipped for RHEED** at Materials Engineering Department, IISc Bangalore.

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)
Name
Designation, Seal Date:

Annexure – 5:

Details of items quoted:

a. Company Name
b. Product Name
c. Part / Catalogue number
d. Product description / main features
e. Detailed technical specifications
f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	… (details of essential items)				
1.b	…				
2.	Optional items noted in the technical specification				
2.a	… (details of essential items)				
2.b	…				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (3 years)				
6.	AMC 2 years beyond warranty				
7.	Cost of Insurance and Airfreight				
8.	CIP/CIF IISc, Bengaluru				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairperson,
Attn: Dr. Bhagwati Prasad
Materials Engineering Department
Indian Institute of Science,
Bangalore – 560012, India

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)
The following items must be checked before the Bid is submitted:

1. Sealed Envelope "A": Technical Bid

1. **Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:**
    a. **Annexure 1: Bidders details**
    b. **Annexure 2: Declaration regarding experience**
    c. **Annexure 3: Declaration regarding clean track record**
    d. **Annexure 4: Declaration for acceptance of terms and conditions**
    e. **Annexure 5: Details of items quoted**
2. **Copy of this tender document duly signed by the authorized signatory on every page and sealed.**

2. Sealed Envelop "B": Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.