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09 September 2022

To Whom It May Concern

Global Tender for a Cryo-Free Cryogenic Probe Station

This is an RFQ (Request for Quote) for procurement of a Cryo-Free Cryogenic Probe Station for Centre for Nano Science and Engineering (CeNSE) at IISc, Bangalore. This is a RFQ from global (international) manufacturers.

CeNSE is a multidisciplinary research department at IISc that houses a 14,000 sq. ft. cleanroom and characterization facility used by more than 50 faculty members from various disciplines at IISc.

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			Annexure 5: Terms and conditions. Details of item quoted
6	Section 6	Commercial Bid	Quotation with Price, Technical specifications of the equipment
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Section 1 - Bid Schedule

1	Tender No	
2	Tender Date	9 September 2022
3	Item Description	Procurement of Cryo-Free Cryogenic Probe Station
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson Office First Floor Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012
6	Last Date & Time for submission of tender	3 October 2022
7	For further clarification	Dr. Gayathri Pillai Room No: FF05 Centre for Nano Science and Engineering Indian Institute of Science, Bangalore, India 560012. Office: +91-80-2293-3250 E-mail: gpillai@iisc.ac.in

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Section 2 – Eligibility Criteria

Prequalification criteria:

1. The Bidder's firm should have existed for a minimum of 3 years. (Enclose Company Registration Certificate)
2. The Bidder should have qualified technical service personnel for the instrument(s) based in India.
3. If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach an authorization certificate along with the technical bid from the original equipment manufacturer.
4. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
5. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.

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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 separate 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, Centre for Nanoscience and Engineering, 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.

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6.If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
7.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.
8.Incomplete bids will be summarily rejected.
9. The technical proposal must include references of 3 previous installations in India. Please provide the names and contact addresses of the referees, so that the committee can contact them independently.
10. The vendor should produce Bill of Entry.

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 Purchase Committee 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.

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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, Purchase Committee 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, and annual maintenance contract.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid. The instrument parts, spares, accessories, and services for the specific equipment will be provided to CeNSE IISc by the vendor for at least 10 years from the date of installation.

F) Warranty:

The complete system is to be under warranty period of minimum 1 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 Purchase Committee 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 at least 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). Net pricing calculation = Price of the system + 15*AMC

H) Purchase Order:

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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. Purchase Committee 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, Purchase Committee 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 guarantee 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:

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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.

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Section 4 - Technical Requirements of Cryo-Free Cryogenic Probe Station

Parameter	Specification Type/Value/Range	Qty
1. Probe arms	• All arms must support DC-1GHz • 4 arms must support DC-40GHz • Non-magnetic hermetic semirigid microwave coaxial probe cable • The probe must be anchored to the probe arm • Probe arms must be thermally anchored to the radiation shield • The probe mount must be thermally anchored to the sample stage • The probe mount must be cooled and should have <25K temperature variation with the sample at T_{min} (T_{min} range in spec. item 2) • Coaxial probe cable with SMA plug at probe end and probe arm end	6
2. Temperature Range on sample holder	• ≤10K – T_{min} • ≥325K – T_{max} • 20mK accuracy or better	NA
3. Vacuum level of the sample chamber	≤50μTorr	NA
4. Temperature cycle duration from T_{max} to T_{min}	• Pump down ≤ 0.5 hour • Chamber cool down ≤ 2.5 hour • Chamber warm up ≤ 2 hour	
5. Micro-manipulated stage	• The micro-manipulated stage must come with thermal radiation shields, welded bellows and feedthrough ports. • Must include probe arm and base along with probes, probe tips, and cables that are compatible with the frequency	6

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	of operation mentioned in the specification 1. • Stainless steel is a must	
6. Sample holder	• ≥ 2inch • Should have a triaxial module • Flexibility to ground the sample holder	1
7. Measurable area	≥1inch	NA
8. Probe arm positioning: Travel distance	X ≥ 50mm Y ≥ 20mm Z ≥ 15mm	NA
9. Vibration at the sample	• Less than 1 µm	NA
10. Viewport	• Ensemble should have a top view access • Viewport ≥ 50mm diameter • Optically accessible area ≥50 mm diameter • Viewport window must be made of an Infrared absorbing transparent material	1
11. Closed cycle refrigerator setup	• Enabling cryo-free operation • Multistage (at least 2) to avoid sample condensation • Multistage heater at the sample stage and CCR stages	1
12. Optical monitoring	• At least 7:1 zoom or better • Monitor • High-Definition colour camera • 5µm resolution or better • Switchable illumination schemes – coaxial and ring light • Brightness and focus control • X-Y motion control of the camera	1

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13. Equipment for temperature control/sweep/heating/ monitoring system(s)	Using a diode sensor, the controller should be able to monitor and control the temperature on • Radiation shield • Multistage CCR • Sample stage • Temperature Sensor on one of the probe arms	NA
14. Safety monitor gauge of the chamber	Must have a relief valve	1
15. Vacuum chamber ports	• A pumping port • Purge gas inlet port • Should have a vacuum isolation valve between the vacuum chamber and the pump	NA
16. GSG microwave probe	• 150µm pitch • Should operate in 10-325K temperature range • >1 MΩ electrical isolation • Up to 40GHz or better	6
17. RF DC Probes	• Should operate in 10-325K temperature range • Probe tip diameter < 30µm • >10 MΩ electrical isolation • Up to 1GHz or better	10
18. Calibration Substrate	• SLOT calibration compatible with 150µm pitch probes	1
19. Turbo Pump	• Oil-free dry scroll back pump • Full range pressure gauge • GUI for pressure monitoring system • Pump line vibration isolator • Mechanical connectors, steel bellows, rings, cables, clamps/fittings and adaptors.	1set
20. Compressor maintenance cycle	• ≥15,000 hrs	NA

Upgrade Option

- Fiber-optic cable compatibility for optical measurements
- Should be able to use a current-controlled setup to apply a magnetic field to the device placed on the sample holder
- Temperature extension to >500K

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Training and demonstration

All the specifications mentioned in the table must be demonstrated by the vendor post instalment of the system at CeNSE IISc. Inability to meet the specification post instalment will become grounds for disqualification of the product.

Training on the usage of the machine (hardware and software) must be demonstrated by the successful bidder at bidder's cost to the end users at IISc, Bangalore. Vendor should have prior experience of installation and service in India for at least 10 years, and at least 3 experienced agents attending for service in India. We will also independently seek references.

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Section 5 - Technical Bid

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

The Chairperson,
Attn: Dr. Gayathri Pillai
Centre for Nano Science and Engineering
Indian Institute of Science
Bangalore – 560012, India

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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:

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Annexure-2:
Declaration regarding experience

To,
The Chairperson,
Centre for Nanoscience and Engineering,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXX
Dated: XXXXX

Supply and installation of Cryo-Free Cryogenic Probe station at Multidisciplinary Micro and Nano Systems Lab, CeNSE, 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 --------

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

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Annexure-3:
Declaration regarding track record

To,
The Chairperson,
Centre for Nano Science and Engineering
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXX
Dated: XXXXX

Supply and installation of Cryo-Free Cryogenic Probe station at Multidisciplinary Micro and Nano Systems Lab, CeNSE, 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:

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Annexure – 4:
Declaration for acceptance of terms and conditions

To,
The Chairperson,
Centre for Nano Science and Engineering
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXX
Dated: XXXX

Supply and installation of Cryo-Free Cryogenic Probe station at Multidisciplinary Micro and Nano Systems Lab, CeNSE, 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:

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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.

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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 (1 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. Gayathri Pillai
Centre for Nano Science and Engineering
Indian Institute of Science
Bangalore – 560012, India

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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.

Thanking you,
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