

Global Tender Notification for Cryostat (Low Temperature attachment) for Raman-PL

(Tender date: 16th June 2025)

This is an RFQ (Request for Quote) for procurement of for Cryostat (Low Temperature attachment) for Raman-PL for the Centre for Nano Science and Engineering (CeNSE) at IISc, Bangalore. CeNSE is a multidisciplinary research department at IISc that houses a 14,000 sq. ft. cleanroom and characterization facility used by more than 100 faculty members from various disciplines at IISc. CeNSE also runs a program called Indian Nano electronics Users Program (INUP) which has allowed 8000 participants and 1500 faculty from more than 700 universities and institutes all over India to use the facilities at CeNSE. Consequently, any utility/facility at CeNSE receives significant exposure to scientific community at IISc and beyond. The vendors are requested to factor in the value of this exposure into their quotes. Details of existing facilities are available at:

<http://mncf.cense.iisc.ac.in/>

<http://nnfc.cense.iisc.ac.in/>

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 clean track record of the bidder
			Annexure 4: Declaration of acceptance of tender
			Annexure 5: Terms and conditions. Details of item quoted
6	Section 6	Commercial bid	Quotation with Price, Technical specifications of the Equipment

Section 1 - Bid Schedule

1	Tender No	CeNSE/MNCF/02/2025-26
2	Tender Date	16 th June 2025
3	Item Description	Supply and installation of Cryostat (Low Temperature attachment) for Raman-PL
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	7 th July 2025
7	For further clarification	Dr. Suresha S J Room No: GF 12 Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012 Email: sureshasj@iisc.ac.in

Section 2 – Eligibility Criteria

Prequalification criteria:

1. **Only the Original Equipment Manufacturer or their authorized representatives across the globe shall participate in the bid.**
2. **The order will be placed only on the bidder who participated in the bid.**
3. The Bidder's firm should have existed for a minimum of 3 years. (Enclose Company Registration Certificate)
4. The Bidder should have qualified technical service personnel for the instrument(s) based in India.
5. 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.
6. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per Annexure 4.
7. 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.

Section 3 – Terms and Conditions

A) Submission of Tender:

1. Vendors will be required to submit a technical proposal and a commercial proposal in **two separate sealed envelopes**. Quotes in violation of this will be rejected. Please mention **“Cryostat (Low Temperature attachment) for Raman-PL”** on the envelopes.
2. All documentation in the tender should be in English.
3. The technical proposal or Technical Bid (Part-A) should have:
 - a. Relevant technical datasheets. The committee reserves the right to cross-check the information in these datasheets with publicly available information.
 - b. A compliance table with 5 columns. The first column must list the technical requirements, in the order that they are given below. The second column should describe the capability of the tool for that specific requirement. Please be quantitative and consistent with the technical datasheets. In case the technical requirement is a text, second column must provide a technical answer. In case the requirement is a number, please provide a number. Third column must specify whether the technical requirement is met with a “Yes”, “No”, or “Partially”. If the response is “Partially” or “No” the third column, the fourth column must explain the extent of the deviation and, if possible, the reasons for the deviation. The fifth column is for other “Remarks”. You can use it to compare your tool with that of your competitors or provide more details/justifications.
 - c. Tender documents without technical compliance documents will not be considered.
 - d. Technical capabilities of any *suggested* accessories/add-ons that may enhance the usability, capability, accuracy or reliability of the tool. Vendors are encouraged to quote for as many add-ons as their tool portfolio permits.
 - e. Any additional capabilities or technical details that you would like to bring to the attention of the purchase committee. Vendors are encouraged to highlight the advantages of their tools over comparable tools from competitors
4. 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.
5. The commercial bid must conform to the following:
 - a. The quotations should be CIP Bangalore (by Air Freight only) with validity of 90 days.
 - b. Mention itemized cost of the system, all components optional items and *required* accessories, such as software, power supply, etc. Provide certificates for the country of origin of manufacturing for each line item. The price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (installed and ready to use) in our facility.
 - c. Mention itemized cost, as an option, for any *suggested* accessories/add-ons that may enhance the usability, capability, accuracy, or reliability of the tool. Vendors are encouraged to quote for as many add-ons as their tool portfolio permits.
 - d. Mention the HSN codes
 - e. Mention the warranty provided with the tool.

- i. Warranty of 1 year is mandatory. Warranty of 3 years or more is preferred.
 - ii. All electronics and instrumentation must be covered under the warranty.
Clearly indicate any part that is not included in the warranty.
 - iii. If parts need to be shipped back to OEM for repair bidder should be responsible for the repair and return
6. If multiple systems fulfil the requirement, vendors can offer multiple bids.
7. The technical proposal will be evaluated against the technical requirements. Only vendors who meet the technical requirements will be considered for the commercial comparison and negotiation.
8. The lowest bid L1 will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, selected optional items, recommended spares and warranty.
9. The decision of the purchase committee on the execution and evaluation of the tender, is absolute and final.
10. The technical proposal must include references of at least 5 previous installations done in India within last 5 years of similar equipment from the equipment manufacturer. Please provide the names and contact addresses of the referees, so that the committee can contact them independently. Please provide the installation report
11. We encourage vendors to give technical presentations, physically or online, so that we can better understand the technical capabilities of their tools and vendors can better understand the requirements.
12. A technical evaluation by the purchase committee may include a demonstration to verify the functionalities and capabilities of the system quoted. The purchase committee reserves the right to reject the bids based on their technical evaluation of the quality of data, capability demonstration, and service. If the data/requested capability demonstration does not happen within a stipulated timeframe, the bid will be rejected. Any discrepancy between the promised specifications and measurements will be deemed as technical non-compliance.
13. The decision of purchase committee will be final.
14. All queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.
15. 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).
16. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
17. 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.
18. 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) Mode of Shipment:

In case of foreign bidders, the consignment must be airlifted, insured and transported to the Bangalore International Airport (CIP/CIF). Necessary custom clearance will be done by IISc, Bangalore, from Bangalore International Airport.

G) Customs clearance:

The IISc, Bangalore will furnish the necessary papers for the import of items into India, necessary custom duty exemption certificate and other supporting documents to facilitate the import of the items will be provided.

H) Warranty:

The complete system is to be under a warranty period of a minimum of one year (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. A warranty of 3 years or more is preferred.

I) Annual Maintenance Contract:

An annual maintenance contract for a period of 2 years post warranty should be provided on completion of warranty period.

J) 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.

K) Delivery and Installation:

1. The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order.
2. The system should be delivered, installed and made functional within 90 days from the date of receipt of purchase order.
3. 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.
4. 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.
5. The bidder should also arrange for technical training to the local facility technologists and users.
6. The bidder should provide onsite application training for the local facility technologists and users.

M) Payment Terms:

The payment will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder.

N) 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.

O) 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.

P) 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. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
5. 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

Technical Specifications Cryostat (Low Temperature attachment) for Raman-PL

- The system must be water-cooled.
- There should not be any need for the He gas/Liquid requirement to run the system.
- Cool-down time from room temperature to 4.2 K must be less than 200 minutes. The vendor should specify the corresponding value.
- Cryostat should have an integrated temperature Controller for fully automated and optimized temperature control operations.
- The system should include the user and system calibration thermometers.
- The cooling power at 4.2K should be ≥ 125 mW

- The system should have a sample space of ≥ 50 mm (dia) x 60mm (height)
- Positional flexibility of the cryostat is required so that the user can put it under the microscope or any part of a vibration isolation table, or from one table to another, as needed for different experiments. Cryostat should be mounted on to the optical table without any external stand or support.
- The Cryostat should not be supported through an external stand and should be placed onto an optical table.
- A vacuum pumping system, including vacuum pump, gauges, and plumbing lines, should be included and integrated with the system.
- Input power: As per Indian input power conditions.

Key Performance Specifications

- Closed-cycle Optical cryostat with a minimum temperature ≤ 3 .K.
- Maximum peak-to-peak temperature variation (at sample) allowed: ± 15 mK at base temperature.
- Peak-to-peak sample stage vibration (xy) allowed: < 10 nm at base temperature. Provide sufficient supporting information. Vendors should provide the factory test report for the supplied system. Vendor must also provide the Procedure followed for testing the vibration levels.
- The Cryostat should be field upgradeable to add an Electromagnet with suitable power supply to generate a magnetic field of 0.7T.
- Vendors must provide the supporting data for temperature Stability & Vibrations.

Optical part:

- There must be at least 5 optical Windows in the Cryostat.
- Four optical access should be on four sides for optical measurements.
- One optical access should be from the top of the cryostat. The working distance of less than 5 mm is desired. The top window material should be BK7.
- The desired overall height of sample chamber is between 135 to 140 mm from optical Table surface. This is to accommodate the sample chamber under the microscope. Vendor should specify this value.

Sample mounting and positioning:

- Sample mount should be designed in such a way that the distance between the sample and window can be varied. This should be possible for sample in both horizontal and vertical orientation.
- Electrical feed through should have at least 20 user pins for DC and 2 lines for RF lines and should include semi rigid lines which can handle up to 20 GHz. All DC and RF lines should be thermally lagged at 30K stage.

Software and automation:

- The system must have a user interface with embedded control software for fully automated temperature control operations. The system should include a touch screen display and should display the real-time system status, temperature, temperature stability, vacuum parameters, etc.
- Software should log system data for quick diagnosis.

- Vendor must have 15 or more similar/equivalent systems installed in India for performance verifications.
- Vendor must have installed at least 6 Cryostats in India for Micro-Raman Spectroscopy and at least 2 Cryostats with an Electromagnet for Micro-Raman Spectroscopy.

Acceptance Criteria

Test	Acceptance Criteria
Cool-down Test (RT to 4.2 K)	≤ 200 minutes (as per vendor specification)
Minimum Base Temperature	≤ 3 K (or better) achieved
Temperature Stability Test (4.2 K)	± 15 mK peak-to-peak
Sample Stage Vibration Test (XY)	< 10 nm peak-to-peak at base temperature
Vacuum Performance Test	As per system specification (to be recorded)
Software Functionality Check	Real-time monitoring, logging, control possible
Electrical Feedthrough Test	All 20 DC pins and 2 RF lines operational
Optical Window Alignment Check	Sample position visible and accessible through windows

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 Chaiperson,
Attn: Dr. Suresha S J (MNCF)
Centre for Nano Science and Engineering
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,
Centre for Nanoscience and Engineering,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXX

Dated: XXXXX

Supply and installation of Cryostat (Low Temperature attachment) for Raman-PL

Dear Sir/Madam,

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

Ref: Tender No: XXXXXXXX

Dated: XXXXX

Supply and installation of Cryostat (Low Temperature attachment) for Raman-PL

Dear Sir/Madam,

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

Ref: Tender No: XXXXXX
Dated: XXXX

Supply and installation of Cryostat (Low Temperature attachment) for Raman-PL

Dear Sir/Madam,

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 (5 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. Suresha S J (MNCF)
Centre for Nano Science and Engineering
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.