



**INDIAN INSTITUTE OF TECHNOLOGY MADRAS**  
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**Ref: PHY/11-12/251/ALUM/SKAS**

**Date: 11.07.2012**

**Tender No.: PHY/KASI/012/2012**

**N.E. Nagaraj**  
**Special Officer (Project Purchase)**  
**IC&SR, I.I.T. Madras**

**Due Date: 06.08.2012, 3:30pm**

**Dear Sirs,**

**On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of various Scientific Instrument “A cryogen free cryomagnetic system” conforming to the specifications given in Annexure.**

**I) Instructions to the Bidder**

- (i) **Preparation of Bids:-** The tenders should be submitted under two-bid system (i.e.) Technical bid and Financial bid.
- (ii) **Delivery of the tender:-** The tender shall be sent to the below-mentioned addresses either by post or by courier so as to reach our office before the due date and time specified in our Schedule. The offer/bid can also be dropped in the tender box on or before the due date and time specified in the schedule. The tender box is kept in the office of the “Special Officer, Project Purchase” IC & SR Building 2<sup>nd</sup> floor, I.I.T. Madras, Chennai – 600 036.
- (iii) **Opening of the tender:-** The offer/Bids will be opened by a committee duly constituted for this purpose. The technical bids will be opened first and it will be examined by a technical committee which will decide the suitability of the bid as per our specifications and requirements. The financial offer/bid will be opened only for the offer/bids which technically meet all our requirements as per the specification. The bidders, if interested, may be present on the financial tender opening Day which will be communicated to you.

- (iv) **Prices:-** The price should be quoted in nett per unit (after breakup) and must include all packing and delivery charges to Various Institutions. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of tax & duties should be clearly indicated.

The price should be quoted without custom duty and excise duty, since I.I.T. Madras is exempt from payment of excise duty, and the custom duty will be paid at concessional rate against duty exemption certificate.

In case of import supply, the price should be quoted on FOB and CIF basis indicating the mode of shipment.

- (v) **Agency Commission:-** Agency commission, if any, will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in the case of 'Nil' commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent.
- (vi) **Terms of Delivery:-** The item should be supplied to our Various Institutions as per Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed as specified in our important conditions.

Yours faithfully,



**N.E. Nagaraj**  
**Special Officer (Project Purchase)**  
**IC&SR, I.I.T. Madras.**

## SCHEDULE

### II) Important Conditions of the tender

1. The due date for the submission of the tender is 06.08.2012, 3:30pm.
2. The offer/bids should be submitted in two bid systems (i.e.) Technical bid and Financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item-wise price for the items mentioned in the technical bid. The Technical bid and the Financial bid should be put in separate covers and sealed. Both the sealed covers should be put into a bigger cover. The limited tender for supply of Professional **“A cryogen free cryomagnetic system”** should be written on the left side of the outer cover.
3. EMD:- Two percent of the tender value quoted by the company. The EMD should be included in the Financial bid which will not be opened for Technical evaluation. **Enclosing the EMD in the Technical bid will automatically disqualify the tenderer.** EMD should be in the form of DD in favour of “The Registrar, Indian Institute of Technology Madras” and payable at Chennai. The tender without EMD would be considered as UNRESPONSIVE and REJECTED. Photo/FAX copies of the Demand Draft/Banker’s pay orders will not be accepted. The EMD will not be paid any interest and EMD shall be converted as a security deposit of the successful bidder and the same will be returned after the completion of the warranty period.
4. If an Indian agent is involved, the following documents must be enclosed:
  - (i) Foreign principal’s proforma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.
  - (ii) Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
  - (iii) The enlistment of the Indian agent with Director General of Supplies & Disposals under the Compulsory Registration Scheme of Ministry of Finance.

5. The offer/bids should be sent only for a machine that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.
6. Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.
7. Documentary proof for the claimed position and repetition accuracies must be obtained from the principals and submitted along with the relevant pages of the standards.
8. Compliance or Confirmation report with reference to the specifications and other terms & conditions should also be obtained from the principal.
9. **Delivery Schedule:-** The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.
10. **Risk Purchase Clause:-** In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.
11. **Payment:-** No Advance payment will be made for Indigenous purchase. However 70% Payment against Delivery and 30% after installation is agreed to wherever the installation is involved. In case of import supplies the payment will be made only through Letter of Credit and 70% payment will be released against delivery and 30% after installation wherever the installation is being done.
12. **On-site Installation:-** The equipment or machinery has to be installed or commissioned by the successful bidder within 15 to 20 days from the date of receipt of the item at Institution of IIT Madras.

13. **Warranty/Guarantee:-** The offer should clearly specify the warranty or guarantee period for the machinery/equipment. Any extended warranty offered for the same has to be mentioned separately.
14. **Late offer:-** The offers received after the due date and time will not be considered.
15. **Acceptance and Rejection:-** I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.
16. **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 Chennai in Tamil Nadu.
17. **Acknowledgement:-** It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.



**SIGNATURE OF TENDERER  
ALONG WITH SEAL OF THE  
COMPANY WITH DATE.**

# **CRYOGEN FREE CRYOMAGNETIC SYSTEM DETAILED TECHNICAL SPECIFICATIONS**

A variable temperature cryogen free cryomagnetic system for the measurement of electrical transport measurements of thin films and bulk samples.

## **Cryomagnet**

1. The cryomagnet should be capable of providing a bipolar field of minimum 8 Tesla.
2. The field uniformity expected in the sample space is 0.1 % or better.
3. The persistent mode decay rate should be less than 100 ppm per hour or better.
4. The magnet and the power supply should be protected against accidental quenching.

## **Sample insert**

1. The sample holder should have a diameter of ~30 mm or more and should have provision for attaching holders of our choice/design in future.
2. The temperature range should be from 1.5 K to 300 K.
3. The temperature at the sample should be measured with appropriate sensors and controlled using PID controllers with a resolution of 10 mK or better below 20 K.
4. The sample should be in static exchange gas.
5. Sample exchange should not result in clogging of the cooling circuit/flow.
6. It should be possible to maintain the sample temperature at 1.5 K continuously.
7. All temperature control should be done automatically without any manual intervention.
8. Two co-axial cables to the sample stage should be provided, in addition to the standard leads.
9. The cryo-coolers should be pulse tube coolers to minimize vibrations.

## **Future upgradation**

1. The system should be upgradable to 300 mK operation in future.
2. It should be possible to add vibration isolation in future to enable measurements which require low vibrations (Tunnelling microscopy, Thermal expansion).

## **Accessories/consumables**

A list of major accessories and consumables should be provided. All the necessary requirements (power, coolant, backup power, foot-print, etc.) for safe operation of the unit should be listed out.

## **Miscellaneous**

The cryo-coolers should be of Sumitomo make or equivalent with similar/better performance. The temperature controllers should be of Lakeshore make or equivalent with similar/better performance.

## **Documents/certificates/brochures**

1. Technical drawings of the system.
2. Technical documents showing explicitly how the requirements mentioned under the category “Cryomagnet”, “Sample Insert” and “Future upgradation” are met.
3. Documents/brochures showing the capability/facility to manufacture such cryogen free cryomagnetic systems.
4. A list of similar cryogen free cryomagnetic systems currently in operation worldwide, along with the user details.