

# INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

**NIT No. : IACS/CSS/SG/2017-18/90**

**Date: 19/01/2018**

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for **200 KV CRYO-TRANSMISSION ELECTRON MICROSCOPE WITH TOMOGRAPHIC IMAGING SYSTEM(CRYO-TEM)**

Sealed tender in two bids system (**Technical Bid & Financial bid**) is invited from bonafide, resourceful and eligible manufacturers/exclusive distributors for supply and installation of **CRYO-TEM** with necessary accessories.

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelop, that should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Completed tender bids should reach the office of the **Registrar, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** on or before the scheduled date and time specified below:

Tender Notice No.	<b>NIT No.IACS/CSS/SG/2017-18/90 Date: 19-01-18</b>
Last date and time of submitting tender	<b>16.02.2018 (12.00 noon)</b>
Pre-bid meeting to discuss technical specification and detail presentation by the representative(s) of the interested companies on the technical specifications of their instrument and application with representative data acquired in their instrument elsewhere.	<b>31.01.2018 at 3.30 pm in S. N. Bose Hall, IACS main building</b>
Date and time of opening tender (Technical Bids)	<b>16.02.2018, at 12.30 PM</b>
Place of opening tender	<b>IACS workshop</b>
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Email: bcpkd@iacs.res.in or psusg2@iacs.res.in Tel.+91 33 2473 4971 [Ext 1505]

The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.

**Technical Bid Evaluation:** The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

**Opening of price-bid:** The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

For evaluation of L1 (least price) amongst the technically qualified bid only, the price of optional item will be considered in the event the committee decides to procure it. If the committee decides not to procure the optional items then the cost of those optional items will not be included in evaluation of L1.

## **1. TECHNICAL BID**

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly superscribed as 'TECHNICAL BID' on the outer cover of the envelop as already detailed above. **It should be clearly mentioned on the envelope as "Technical Specification for CRYO-TEM "**.

### **Desired Specification for 200 KV Cryo-Transmission Electron Microscope with Tomographic Imaging System**

- \* 200 KV TEM with compatible Objective Lens supporting Cryogen-Cooled Sample studies along with High Tilt Angle of (+/-) 80 deg, in X and Y Axis-directions
- \* Electron Beam Source with Standard LaB6 Emitter (along with Two extra Emitters, to be supplied as and when required )
- \* Beam-Geometry-Control with multi-divergent angles and necessary apertures for Beam-Illumination control
- \* Objective Lens Resolution - Point Resolution : 0.30 nm or better. Line/Lattice Resolution : 0.15 nm or better
- \* Eucentric and Drift-free Sample Stage with X and Y Axis Tilt-angle support of (+/-) 80 deg.
- \* Direct image viewing chamber
- \* Quick switching between working Acceleration Voltage-stages; 100KV, 120KV, 160 KV and 200 KV with automatic and instant restoration of Beam Alignment
- \* Integrated In-Column Anti Contamination mechanism
- \* Integrated programmable In-Column and Pump Baking System
- \* Area selective (aperture controlled) Electron Diffraction, Nano-Beam-Probe Electron Diffraction, Convergent Beam Electron Diffraction Modes.
- \* Automated Beam and Lens adjustments for distortion-free imaging at Ultra Low Magnification and Higher Magnifications
- \* Necessary ports for future upgradation with add-on accessories

- \* Objective Lens Apertures for effective enhancement of Image-Contrast
- \* Complete Manual Control-Panel and Necessary Control-Server ( Latest OS version and latest Control Software) for Automated control of TEM Operations, User-end Beam Manoeuvring and Maintenance. Free Upgradation of Software whenever applicable
- \* Real-time Tomography-Imaging System with Control-Server ( Latest OS) and On-Line Software (Latest Version and Free Upgradation of Software whenever applicable)
- \* Independent and Stand-alone, High-end Workstation ( preferably 16 GB RAM ) with Tomography Software for Off-line Analysis
- \* Bottom Mounted 3K X 3K High Resolution Digital Camera for Data/Image Recording along with Programmable Multi-Exposer Recording, Video Capturing, automated Shutter and Exposer control, independent high-end server with adequate RAM and Storage capacity ensuring smooth data acquisition, latest version of Control Software ( Free Upgradation of Software whenever applicable ) and latest OS
- \* Standard High Tilt Sample Holder
- \* Standard Double High Tilt Sample Holder
- \* Specially designed Cryo-High Tilt Sample Holder
- \* Complete and Independent Cryo Sample Preparation and Transfer system with dedicated Vacuum station along with all necessary accessories, tools (eg, specially designed Insulated Tweezers, Non-Magnetic-Alloy Bent-Head Tweezers, Teflon Tweezers, spare O-rings etc ) in adequate quantities.
- \* TEM related necessary Tools, Grease, Spares (eg, Pressure Gauges, Valves - solenoid and pneumatic, complete O-Ring sets, complete Fuse sets, Lint-free tissue, aluminium foils, metal polish, all sorts of Pump Oil and Belts, DP Heating-element etc )
- \* Power Supply : All necessary high quality UPSs of reputed brands with noise-free pure wave output : Compatible 20/15 KVA UPS for the Main Console Power Supply and Compatible 15/10 KVA UPS for Chiller with One and Half Hours of backup-time for both
- \* All necessary high quality and Loss-Free Step-Down Transformers for Console Power supply and Chiller Power supply, with compatible cables.
- \* Any other equipment/device/tools whichever are necessary for installation and operation of the complete System.
- \* Service: Past installation history of the said equipment in India. It is desirable that adequate number of installations by the company have been fulfilled in India and the instruments are in running condition. Notably, the company must have expert service support specifically for the said equipment in India.
- \*Operator: Technically competent support staff should be employed by the company during first three years after the installation of the equipment to provide necessary training and service to the users. The support staff should be available at IACS during all working days

Sr. No	Tender specification	Your offered instrument specification	Extent of compliance

Tender will not be accepted if the technical compliance chart is not provided following the above format.

**Important notes:**

- i) Vendor should quote rates involved, if any, for the Optional Items/services mentioned separately.
- ii) Bidder providing misleading or wrong information will be disqualified
- iii) All technical claims of the Bidder should be supported by product catalogue, public website of the manufacture.
- iv) Qualified vendor will be required to undertake the room refurbishment for proper installation of the system. IACS will provide the space will electrical connection. The vender will be required to install the necessary tables and other furniture as required by the instruments. They are expected to inspect the space and take the room preparation work before delivery of item.

**2. PRICE/ FINANCIAL BID**

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as 'PRICE BID' on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

PRICE: Price to be quoted on CIF Kolkata and also FOB basis.

**3. BID SECURITY:**

- a. An Account payee Demand Draft/Pay Order of Nationalized Indian Bank for Rs. 10,00,000 (Rupees ten lacks only) drawn in favour of "Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)" is to be furnished by the bidders alongwith Technical Bid except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). Alternatively, the Bidder shall have the option to furnish the EMD in the format of Bank Guarantee (BG) of any Indian Nationalized Bank.
- b. The Demand Draft for the Bid-Security should have at least about 90 (ninety) days validity period of opening of the bids.
- c. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

**4. PERFORMANCE SECURITY:**

An Account Payee Demand Draft on any nationalized bank of India or Bank Guarantee (BG) of any Indian Nationalized Bank of 10% of the order value in the name of "Indian Association for the Cultivation of Science" is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

**5. TERMS OF PAYMENT :**

Payment will be made through irrevocable Letter of Credit in two installments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

## **6. GENERAL INSTRUCTIONS :**

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.
2. The tender should accompany a compliance chart.
3. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
4. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally to visit the website ([www.iacs.res.in/tender](http://www.iacs.res.in/tender)) for any amendment.
5. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
6. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers who are responsible for after sales support. Response time should be within 24 hrs.
7. The model number, make and a printed literature of the product should be submitted positively.
8. Proposed delivery schedule should be mentioned clearly.
9. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
11. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
12. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
13. In case of any dispute, the decision of IACS authority shall be final and bidding on the bidders.
14. For any clarification regarding technical specifications, information etc., please send your queries to [bcpkd@iacs.res.in](mailto:bcpkd@iacs.res.in) OR [psusg2@iacs.res.in](mailto:psusg2@iacs.res.in).
15. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

**7. Warranty: Warranty:** Equipment should be offered with comprehensive warranty including service and spares for three (3) years. The vendor should also quote for further 5 years Annual Maintenance Contract (AMC) and Comprehensive Maintenance Contract (CMC) separately after the expiry of initial period of warranty. Taxes as applicable will be deducted at the time of payment of AMC/CMC amount.

**Acting Registrar**