

सीएसआईआर– उत्तर पूर्व विज्ञान एवं प्रौद्योगिकी संस्थान  
CSIR – NORTH-EAST INSTITUTE OF SCIENCE AND TECHNOLOGY  
(Council of Scientific & Industrial Research)  
जोरहाट: JORHAT: असम: ASSAM



**NOTICE FOR PRE-INDENT CONFERENCE**  
**No. 1(PEQ)/17/15-16/PUR**



Director, CSIR – NEIST invites Original Equipment Manufacturers, Foreign Principals and Indian Agents for Pre-Indent Conference for presentation & discussion on technical parameters & other related issues for High Resolution Transmission Electron Microscope (HRTEM) to be procured by CSIR-NEIST. Detailed information may please be seen and downloaded from our website <http://www.neist.res.in>

**Stores & Purchase Officer**

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CSIR – North-East Institute of Science and Technology (CSIR-NEIST) is planning to procure **High Resolution Transmission Electron Microscope (HRTEM)**. A Pre Indent Conference (PIC) will be held on **17<sup>th</sup> Dec., 2015 (Thursday) at 03.00 PM to 06.00 PM and will be continued on 18<sup>th</sup> Dec., 2015 (Friday) from 9:00 A.M onwards, if required** at CSIR-NEIST, Jorhat Campus with the interested bidders to discuss the aspects of utility, technology, feature, literature, design, technical parameters, clientele, and other related issues of the **High Resolution Transmission Electron Microscope (HRTEM)**.

Interested parties may submit their willingness to the **Stores & Purchase Officer, CSIR-NEIST**, on or before **16.12.2015** by mail [spopur@rrijorhat.res.in](mailto:spopur@rrijorhat.res.in) / [spopur@gmail.com](mailto:spopur@gmail.com) for participation in the PIC.

Mere participation in the Pre Indent Conference does not imply that the firms / companies have the right to submit their bid / to be awarded with the contract.

**GENERAL IMPORTANT NOTE:**

The instructions mentioned below should be read carefully by the interested firms before submitting the response and the relevant documents.

- a. **No request for change in time and dates will be entertained.**
- b. The participants shall bear all costs associated with the participation in pre-indent conference etc., and CSIR-NEIST will in no case be responsible or liable for these costs.
- c. Canvassing in any form would disqualify the bidder from further participation.
- d. A DRAFT specification/requirement is given at "Annexure A" as a base for discussion.
- e. A maximum of 2 (two) authorized representatives may participate the Pre Indent Conference. Vendors should communicate the names of the representatives to the Stores and Purchase officer along with the PIC participation willingness.
- f. Interested vendors/participants are requested to submit their company profile and salient features of their relevant products along with their willingness.
- g. Submission / acceptance of Bids will not be restricted only to the parties attending the PIC.
- h. Bids will be invited after the PIC along with standard terms & conditions and Earnest Money Deposit, Performance Bank Guarantee, Agreements etc.
- i. **CSIR-NEIST reserves the right to change any or all of the components and dates.** The decision taken by CSIR-NEIST would be final and binding on all the prospective participants. Director, CSIR-NEIST, Jorhat, Assam reserves the right to accept or reject any application/suggestions without assigning any reasons whatsoever.

**Stores & Purchase Officer (SPO)**  
**CSIR-North East Institute of Science and Technology**  
**Jorhat-785006, ASSAM**  
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## ANNEXURE A

### Draft Specification of High Resolution Transmission Electron Microscope

The PC controlled digital High Resolution Transmission Electron Microscope (HRTEM) to be used for atomic level observation of micro structure should possess capability of ultrahigh resolution image observation with following features:

- The Transmission Electron Microscope should operate at an acceleration voltage of 200 KV (Maximum).
- TEM should be controlled by PC and manual control should also be provided.
- Power Requirement: Single Phase, 220/240V, 50 Hz.
- Filament type : LaB6
- Resolution: Point to Point: 0.2 nm or better, Lattice: 0.15 nm or better.
- Minimum variable step : 50V or better
- Minimum Spot size: 20 nm or more in TEM mode, 1 nm or less for EDS/CBED mode.
- Magnification: up to 1,200,000 X or better
- Objective Lens: Spherical Aberration (Cs) less than 0.7 mm, Chromatic aberration (Cc) less than 1.3mm. In-gap OL Aperture & OL high contrast aperture to be included.
- Probe Control: The optimum lens condition for different analysis modes should be achieved by touch of a single button.
- Specimen Stage: 5 Axis motorized eucentric side entry Goniometer with piezoelectric drive mechanism to achieve specimen movement at nanometer scale allowing navigation at high magnification. Facility for recording specific specimen translation position as reference point in the memory.
- Specimen tilting angle: minimum +/- 25 deg. Or more
- Camera: The system should be equipped with Sheet film camera.
- Viewing Chamber Port: Necessary provision should be available to mount the Dark Field & Bright Field Detector between the 35mm camera port and the viewing chamber.
- Beam illumination Mode : TEM, EDS, SAD, CBED
- Vacuum system: TEM should have TMP for gun & specimen chamber, Diffusion Pump for viewing and camera chamber.
- Safety Device: TEM should be equipped with self-diagnostic functions to detect problems like pneumatic pressure abnormality, cooling water temperature abnormality, reservoir tank pressure abnormality etc.
- Expandability: TEM should be fully upgradeable to integrate devices like EDS, STEM, CCD, EELS etc. in future.
- Computer: 2No. computer(s) and 24" TFT Monitors, keyboard, mouse, CD-RW, Control Panel with multifunction for the control and adjustment of TEM parameters, Ethernet ready, Image saving capability at 2560x 2048 pixels or better
- Sample preparation kit
- Cryo holder
- Magnetic sample holder

#### Other Terms & Conditions:

- Warranty for 3 years from the date of installation.
- Installation and commissioning and training should be carried at the buyer's site.
- Service response time, turn-around time & up-time of the equipment should be clearly specified.
- The supplier will have to provide a high skilled and experienced full time operator to run the system for a period of 6 months from the date of installation of the system in the institute at their own cost. Training to CSIR-NEIST personal for smooth running
- List of users of the Instrument in last 5 years in India with contact address to be provided.
- Pre-installation requirements are to be stated clearly, and to be verified/surveyed by the supplier at the installation site.
- The supplier must submit technical brochures and proper application notes adequately explaining and confirming the availability of the features in the model of the equipment.
- Annual Maintenance Cost (AMC) terms & conditions should be provided.