

**INDIAN INSTITUTE OF TECHNOLOGY DELHI  
HAUZ KHAS, NEW DELHI-110016**

**DATE: 30-09-2011  
DUE DATE:- 21-10-2011**

**NOTICE INVITING QUOTATION**

Ref: IITD/NRF/NIQ/2011

Quotations are invited for the purchase of **Table Top Scanning Electron Microscope (SEM) With EDS** for the Nono Research Facility., IIT Delhi. Interested suppliers are required to submit their quotations as per the specifications given below. The sealed Quotations are to be submitted in two Separate envelopes;

**A - For Technical Quote (Specifications) &**

**B - For Financial Quote.**

**(For details see Annexure I)**

Both these envelopes should be enclosed in an outer envelope, clearly mentioning on top right corner of the envelope “**Quotations for Table Top Scanning Electron Microscope (SEM)**”. This envelope should be addressed to

**Prof. Neeraj Khare  
Nano Research Facility  
Block VI Room No.-116  
Indian Institute of Technology  
Hauz Khas,  
New Delhi 110016**

The quotations should reach the **by 5.00PM on 21-10-2011**.

If needed, the suppliers may be asked to make a technical presentation before the Purchase Committee. Institute reserves the right to accept or reject any of the offers without assigning any reasons.

**Specifications of Table Top Scanning Electron Microscope (SEM)**

<b>S. No.</b>	<b>Specification</b>	<b>Essential requirement</b>
1.	Magnification	$\geq 20000$
2.	Accelerating Voltage	5 kV -15 kV
3.	Resolution	30 nm or better
4.	Imaging mode	Topographic and composition contrast
5.	Detector	BSE Detector ( also quote SE detector as optional)

6.	Maximum Sample size	70 mm diameter, 15 mm height
7.	Sample Stage Traverse	X: 30 mm, Y: 30 mm
8.	Vacuum system	Turbo Molecular Pump( 30L/s or better) backed by diaphragm pump
9.	Auto Image Adjustment Function	Auto start, auto focus, auto brightness, auto contrast
10.	PC	Suitable computer with latest configuration with Windows operating system for the control of the system
12.	Power Input	Single Phase AC 220 V, 50 Hz
14.	UPS	60 min backup, suitable for the above system

#### **Specifications of EDS System**

<b>S. No.</b>	<b>Specification</b>	<b>Essential requirement</b>
1.	Compatibility	With the quoted Table Top SEM
2.	Elements	Boron up to Uranium
3.	Cooling method	Liquid N2 free
4.	Software Functions	Spectra acquisition with Automatic element identification, Reliable element quantification (atomic %, weight %), Point analysis, Line profile analysis. X-ray element Maps for selected region
5.	PC	Specify if a separate PC for EDS is required

Please also quote for the essential spares and specify dimension of the system and the feasibility of viewing sample with a tilt.

## **Annexure I**

**Envelope A: Technical Quote: The following details are to be enclosed** (*Mention clearly on this envelope – **Technical Quote***)

1. Technical brochures mentioning all details with complete address of the principals.
2. Please note if the signatory of the Technical quote is an Official from Indian Company/ Agent then it is mandatory that a letter from the Principal approving the technical specification as mentioned in the quotation should be attached.
3. A compliance chart based on the specifications as per the NIQ.
4. Any optional equipment / accessory advised to be included separately.
5. Installation requirements including gases and chillers, UPS, etc.
6. List and addresses of organizations where similar equipment has been supplied in last 3 years in India.
7. Details of other equipment supplied to IIT Delhi specifying the Department/ centre / lab to which the equipment was supplied. Also mention if the equipment is being maintained by your organization.
8. Address of the technical office, in India, with telephone and FAX numbers. Kindly clarify the type of support available in India.
9. If quote is for imported equipment, Sole Agency-ship certificate on the letterhead of the principal company, if quotation is from an Indian Agent.
10. Proprietary Item Certificate from the principals, if applicable.

**Envelope B: Financial Quote: The following details are to be enclosed/ ensured.** (*Mention clearly on this envelope – **Financial Quote***)

1. The quotations for the equipment in foreign exchange, if it is to be imported. The cost of spares and optional equipment to be quoted separately. The cost should be based on CIF, New Delhi. If equipment is indigenous, the quote should be in INR and all taxes applicable should be mentioned clearly.
2. Institute makes payment after delivery and successful installation. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated.
3. The comprehensive Warranty for 3 years.
4. The details of the AMC after the warranty period.
5. Cost for Installation and training at site, if needed, to be provided.
6. Validity of the quote should be 90 days.
7. The delivery period to be clearly specified.