

Department of Physics
Indian institute of Engineering Science and Technology (IEST), Shibpur
Howrah-711 103

Project Code: DRC/DST/PHY/MPC/001/16-17

Notice Inviting Quotations

Sealed quotations are invited for the supply of *i) Vacuum Thermal Evaporation with Electron Beam Gun System* and *ii) Optical Microscope* as per the following technical specification. The relevant bidding document can be downloaded from the website. The document can be also obtained from the Department of Physics (contact: Dr. Manish Pal Chowdhury) between 10.30 a.m. and 4.00 p.m. on all working days **from 10th May, 2016 to 30th May, 2016**. Last date of submission of sealed quotation is **30th May 2016 by 4.00 p.m.**

Dean (R & D)

(A. Code DRC-T021/16-17)

This is downloadable

**Indian Institute of Engineering Science and Technology (IEST),
SHIBPUR**



BIDDING DOCUMENT

(Project Code: DRC/DST/PHY/MPC/001/16-17)

**Ref.: Advt. No. PH 1206, published in “The Statesman”, “Sangbad Pratidin”
and “Sanmarg”, dated 05.07.2016**

For Supply of

- 1. Vacuum Thermal Evaporation with Electron Beam Gun System**
- 2. Optical Microscope**

Under

DST-SERB Project Scheme
Govt. of India (New Delhi)

Department of Physics

June 27, 2016

SECTION I: TERMS & CONDITIONS AND IMPORTANT INSTRUCTIONS FOR BIDDERS

1. Bidders are to invited to submit sealed quotation with **2% EMD** as per the technical specifications for tendered item to Dr. Manish Pal Chowdhury, Assistant Professor, Department of Physics, **on or before 30th May** between **10.30 a.m. to 4.00 p.m.** except Saturday, Sunday and other public holidays.
2. The tender should reach the office address (mentioned below) within **14 working days from the day of publication.** Quotations received later will not be entertained under any circumstances.
3. The tender will be opened on **the next working day of due date at 11.00 a.m.** and the place of opening of bid is HOD Office of the Department of Physics, Indian Institute of Engineering Science and Technology (IEST), Shibpur, Howrah-711103.
4. Bidders are to submit the quotations in Sealed Cover to the Department of Physics in the following address:

**Dr. Manish Pal Chowdhury
Assistant Professor
Department of Physics
IEST, Shibpur
Howrah-711103, India**

5. All bids should be submitted in ONE-BID (TECHNO-COMMERCIAL BID) Format in covers (Enquiry Number must be mentioned on cover).

TECHNO-COMMERCIAL BID - giving Detailed Specifications, International Standards (BIS/INTERNATIONAL), Catalogues, List of users & Technical Details / Operating Parameters, Pre-Installation Requirements, payment terms, 12 months onsite warranty, etc. along with PRICE BID - giving full Prices in Indian Rupees and for imported items CIF Kolkata for

- (a) Tendered item.
- (b) Essential Accessories & Spares.

Indigenous manufacturers should be ISO certified. Vendors with onsite service center will be given preference. Vendors are requested to provide PAN, VAT, Trade license and dealership authorization certificate. List of customers of similar instrument in the last three years.

6. The price quoted should be inclusive of all Taxes, duties and levies. Inclusion of Tax/Levy at a later stage will not be accepted. Freight, Insurance charges should be clearly indicated.
7. The materials are to be supplied at a place within IEST premises between 11.00 a.m. and 4.00 p.m. The tenderer will be responsible for any breakage, damage or defect in the equipment detected subsequently.

The supply and installation of the equipment should be completed within a period not exceeding 3 months from the placement of the formal work order or opening of the LC failing which appropriate action will be taken as per university rules.

8. If the supply is not completed within the stipulated period as indicated in the Work Order, a Liquidated Damage @ ½ per cent per week will be imposed subject to maximum of 5% of the value of work order.
9. For Indian purchase (*This clause is applicable only for Indian purchase and not applicable for foreign purchase*):

Bills in triplicate should be presented for payment within 15 days of Supply / Completion of work. No Advance Payment can be made. All bills are to be accompanied by Order copies and Challan Receipt. The Order Number is to be noted on both the Challan and the Bill.

10. Documents to be submitted with the tender:

Tender Documents/Terms & Conditions in Original duly signed by the Proprietor / Partner/ Director of the Company as a token of acceptance of Terms & Conditions of Tender.

11. Customs Duty & Excise Duty

- The University will not issue any C or D form availing of concessional Sales Tax/ VAT.
- The University will issue Customs Duty Exemption Certificate or Excise Duty Exemption Certificate for foreign purchase, if required.

12. Indian Institute of Engineering Science and Technology (IEST), Shibpur, Howrah reserves the right to accept / reject all or any of the tenders without assigning any reason whatsoever.

We accept the above terms and conditions.

Dated:

Signature of Bidders/Suppliers

With date & Seal

SECTION II: TECHNICAL SPECIFICATIONS

1. Specification for Vacuum Thermal Evaporation with Electron Beam Gun System:

D type front door open SS vacuum chamber, with oil diffusion pump backed by dual rotary pump system evacuated upto 1×10^{-6} m.bar. equipped with digital Pirani gauge and Penning gauge and the following specifications (in-house production of diffusion pump, rotary pump, vacuum gauge heads and meters)

- **DC POWER SUPPLY**
A 200 amps power supply capable of delivering 200 amps at 10 volts
- **H.T POWER SUPPLY**
A 5000 volts DC Open circuit, 3500 volts at 50 mA high reactance type transformer and solid state bridge rectifier.
- **ELECTRON BEAM GUN AND POWER SUPPLY**
3 KW Single pocket 270 deg Electron Beam Source with 3 KW.
Manually operated source shutter.
- **DIGITAL THICKENESS MONITOR**
Rate display: 00.0 to 999 Ang/sec
Thickness display: 0.000 to 999.9 k Ang
Thickness resolution: 1 Ang
- **CHILLER**
0.5 TR or higher water chillier with storage tank, recirculation pump, pressure gauge, flow meter.
- **Free consumables**
 - a) Set of Neoprene 'O' rings
 - b) Molecular distilled oil for Rotary vacuum pump (5 Liters)
 - c) Diffusion pump heater
 - d) Pirani gauge head
 - e) Penning gauge head
 - f) Tungsten helicals 10 WC 3/3 - 6 nos
 - g) Tungsten baskets 10WB 3/3 - 6 nos
 - h) Molybdenum Crucible for EB gun - 10 Nos
 - i) Crystals for Film Thickness monitor - 10 Nos
- All the Stainless steel components and sub-assemblies are to be electro-chemically polished.
- **Vendor will supply all the accessories like Electron Beam Gun with Power Supply, Rotary Pumps, Diffusion Pumps, Pirani Gauge, Penning Gauge by his own make for maximum compatibility.**

2. Specification for Optical Microscope quantity 1

- Trinocular compound microscope with C-mount port and camera (CCD/CMOS sensor) and Software along with morphometry support.

- 10X eyepiece pair
- Objective lens: 10x, 40x, 100x
- Reflected light with contrast for Brightfield (BF).
- Oblique / Darkfield (DF) will be given preference
- LED illuminator
- All the items of the optical microscopes including the camera and the imaging software should be manufactured by single manufacture for better compatibility and performance.