

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

Ref.: Advt. No. PH 1197, published in “The Times of India, Kolkata”, “Ei-Samay”, dated 12.05.2016 and “Sanmarg”, dated 11.05.2016

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

Notice Inviting Quotations

Sealed quotations are invited for the supply of *i) 1Micro positioners ii) Current preamplifier iii) Vacuum Thermal Evaporation with Electron Beam Gun System and iv) Optical Microscope v) DAQ and vi) Mass Flow Controller* 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-T012/16-17)

This is downloadable

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



BIDDING DOCUMENT

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

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For Supply of

- 1. Micro positioners**
- 2. Current preamplifier**
- 3. Vacuum Thermal Evaporation with Electron Beam Gun System**
- 4. Optical Microscope**
- 5. DAQ**
- 6. Mass Flow Controller**

Under

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

Department of Physics

May 06, 2016

**SECTION I: TERMS & CONDITIONS AND IMPORTANT INSTRUCTIONS
FOR BIDDERS**

1. Bidders are to invited to submit sealed quotation 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 last date of receipt of tenders is **30th May 2016 up to 4.00 p.m.** quotations received later will not be entertained under any circumstances.
3. Date and time of opening of bid is **31st May, 2016 at 11.00 a.m.** and the place of opening of bid is HOD Room 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, 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.
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 Micro positioners quantity 3

10 mm travel for X axis

5 mm travel for YZ axis

50 x 50 mm top size

Straight line accuracy : 0.010 mm or higher accuracy

Precision micrometer driven

2. Specification for Current preamplifier quantity 1

Low noise current preamplifier with following features;

- 5fA/ Hz input noise
- 1MHz maximum bandwidth
- 1pA/V maximum gain
- Adjustable bias voltage
- Two configurable signal filter
- Variable input current
- Line or battery operation
- RS 232 interface

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

SS vacuum chamber, with oil diffusion pump backed by rotary pump evacuated upto 1×10^{-6} m.bar. Equipped with digital Pirani gauge and Penning gauge and the following specifications

- **L.T 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, Power Supply Model EBG-PS-3K (Single Phase).

- **DIGITAL THICKNESS MONITOR**

- **CHILLER**

4. Specification for Optical Microscope quantity 1

Trinocular compound microscope with CCD camera and software

Reflected light imaging

Objective lens: 10x, 40x, 100x

LED illuminator

5. Specification for DAQ quantity 1

Single-Ended Inputs (20) or Differential Inputs (10)(16-18+ Bits)

2 Analog Outputs (12-Bit)

6. Specification for Mass Flow Controller quantity 1 each

- Digital Mass Flow Controller, Range – 0 to 2 SLPM, Gas – Hydrogen (H₂).
- Digital Mass Flow Controller, Range – 0 to 2 SLPM, Gas – Argon (Ar).
- Digital Mass Flow Controller, Range – 0 to 2 SLPM, Gas – Methane (CH₄)
- All must come with power supply and display
- Inlet/outlet fitting Swagelok ¼”