

**Physics Department  
Indian Institute of Technology Delhi**

Ref. IITD/BPHY/MC/2013/1

Dated: Dec 19, 2013

Quotations are invited for One 1.5 tesla Electromagnet with power supply, Helmholtz coil and Hall probe with specifications given below. Technical and commercial bids must be submitted in separate sealed envelopes subscribed with "Technical Bid " or Commercial Bid" as appropriate. Both bids should be enclosed in an envelope subscribed, "Quotation for electromagnet and Helmholtz coil" .

The quotation should reach Dr. Mukesh Chander, Department of Physics, IIT Delhi, Hauz Khas New Delhi 110016 latest by 5.00PM on 6/01/2014.

**Specifications:**

**1. Electromagnet with Power supply**

**1.5 Tesla Electromagnet** with single phase power supply

Magnetic field : 1.5 tesla,

Pole diameter 40 mm

Distance between Pole pieces : 80 mm (adjustable gap)

Stability of magnetic field < 0.01%,

H shaped, air cooling, Uniform field distribution

**Power supply for generating 1.5 T field at pole gap of 80mm :**

Operating voltage: 220 volts, 1 phase, 40-60 Hz with pre-regulation

O/p voltage : > 60.0 Volt, D.C. with load regulation < 0.05 %

O/p Current : > 20.0 amps D.C.

**2. Helmholtz coil with ac supply**

No. of turns : 300

Diameter : > 50 mm

Superimposed A.C.voltage: 0-10 Volt a.c ./5.0 amps( upto 1 KHz)

O/p Voltage/current ripples: 0.005% of reading maximum output or better

Resolution: 0.001 volts/ 0.001 amps

Overload protection:

Load compatibility: resistive load or equivalent

Voltage ripple: +/- 0.01 percent of rated voltage

Line regulation (voltage):  $\pm 0.010$  % or better for  $\pm 10\%$  variation in line voltage

**3. Hall probe**

Measurement range : 0.1 Gauss to 2 Tesla

Response time : 1000 samples/sec

Resolution : less than 1 micro tesla

High input impedance : > 100 M ohm

Digital display

Operating Voltage : 220 V ac, (50-10000 Hz) / 10-15 V dc.

## TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

1. DELIVERY The rates quoted must be F. O.B.
2. TERMS OF PAYMENT Payment terms with necessary details should be provided with the offer.
3. INSTITUTE'S RIGHTS Institute reserves the rights of acceptance or rejection of any or all quotations without assigning any reason(s). The discretion for increasing the quantities demanded also vests with the Institute.
4. VALIDITY OF QUOTATIONS Quotations will be considered valid for 3 months from the date of receipt unless otherwise stated.
5. CORRESPONDENCE No correspondence regarding acceptance/rejection of a quotation will be entertained.
6. SUBMISSION OF QUOTATIONS Quotations may be sent through either by post through a sealed envelope containing separate sealed envelopes of Technical and Commercial Bids while mentioning the N.I.Q. REFERENCE AND DUE DATE FOR OPENING as the subject.
7. REJECTION Quotation not conforming to the set procedure as above will be rejected.
8. DISCOUNT Special discount/rebate wherever admissible, keeping in view that the supplies are to be made for Educational purpose in respect of Public Institution of National importance, may please be indicated.
9. AUTHORISED SALES AGENCY SHIP In case the quotation is being submitted by authorized agent of the principal manufacturing company, the AUTHORISED SALES AGENCYSHIP certificate from the PRINCIPALS should be furnished along with the quotation.
10. OTHERS (a) Necessary information may also be provided in respect of Warranty
  - Delivery period
  - Penalty clause for delay in delivery(b) In case the quoted item is proprietary in nature, the necessary document indicating so may be submitted along with the quotation.