## Department of Physics, Indian Institute of Technology IIT.P.O. Madras-600 036

Ref. No. \_\_\_\_\_ Date: 13 /11 / 2014

PHY 2014 029 STORES

To,

Dear Sir, **Due date: 27 / 11 / 2014** 

1. Quotations are invited in duplicate for the item specified below/overleaf/ enclosed.

- 2. The quotations duly sealed and superscribed on the envelope with the Reference No. and due date, should be addressed to the undersigned so as to reach him/her on or before the due date stipulated above.
- 3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
- 4. If the item is under DGS &D RATE CONTRACT, RC No.and the price must be mentioned. It may be also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the RC ( Please note that we are not Direct Demanding Officers)
- 5. Relevant literature pertaining to the items quoted with full specifications ( and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
- 6. **Local Firms**: Quotations should be for free delivery to this Institute. If Quotations are for Ex-godown . delivery charges should be indicated separately.
- 7. **Firms outside Chennai**: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train/lorry transport must be indicated. If Ex-godown, packing, forwarding and freight charges must be indicated.
- 8. The rate of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim, for Sales/General taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales tax Certificate will be issued at the time of final settlement of the bill.
- 9. Goods should be supplied carriage paid and insured.
- 10. Goods shall not be supplied without an official supply order.
- 11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

## **SPECIFICATION ENCLOSED**

Yours Sincerely,

Dr. Jayeeta Bhattacharyya

Head / Co-ordinator

Department of Physics, Indian Institute of Technology Madras, Chennai - 600036, India.

Telephone: +91 44 2257 4850

Minimum specification for temperature monitor and controller for cryostat (Quantity - 1 unit)

Temperature monitor and controller type	Having at least two sensor inputs
Display	Digital LED display with mK resolution of both sensors simultaneously and front panel keypad
Heating control	Atleast two separate heating control, with auto tuning control loops, 50W/25W and 1W/75W ranges.
PID parameters	Auto tuning and user setting, both must be possible
Interface	IEEE 488 and USB, most settings must be accessible via computer interface, and Labview compatible
Sensor compatibility	Must support standard Si diode, RTD and thermocouples.
Set-point	Option for set-point ramping available
Calibration	Loaded with standard calibration sensor curves and provision for user provided sensor curves
Mains voltage	230V, 50 Hz
Compatible sensor specification (please quote prices)	
Temperature sensor type	Si diode in copper bobbin package
Operational temperature range	Atleast 2 K to 400 K or wider
Necessary accessories	Cable assembly for both sensors and heaters

Please provide accessories like power cable, compatible cables for sensors (at least 1m long) etc needed for complete operation and connection with standard cryostat

Please provide a clear warranty statement

Please provide <u>separate technical and financial bids</u> in sealed envelopes

Please mark tender number on top of the cover envelope

Jayeeta Bhattacharyya