

Under Certificate of Posting
Department of Physics, Indian Institute of Technology
IIT.P.O. Madras-600 036

Ref. No. Phy/2018/003/Stores

Date : 26.06.2018

PHY	2018		STORES
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Dear Sir,

DUE DATE& TIME: 20.07.2018, 5pm

1. The vendors have to send sealed Technical bid and price bid separately.
2. Quotation are invited in duplicate for the various items shown below/overleaf/ enclosed list.
3. 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 on or before the due date stipulated above.
4. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
5. 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)
6. 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.
7. **Local Firms:** Quotations should be for free delivery to this Institute. If Quotations are for Ex-godown, delivery charges should be indicated separately.
8. **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 Exgodown, packing, forwarding and freight charges must be indicated.
9. 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.**
10. Goods should be supplied carriage paid and insured.
11. Goods shall not be supplied without an official supply order.
12. 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.
13. Separately sealed technical and price bids are to be sent to the following address:

Dr. P. N. Santhosh, (Principal Investigator)
Professor,
Department of Physics,
IIT Madras, Chennai - 600036.

The required technical specifications and terms & conditions are enclosed.

Yours Sincerely,

CO-ORDINATOR
[Dr. P. N.Santhosh]

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Technical specification for Computer controlled Electrochemical Workstation

Sl. No	Parameter	Required Specification
1	Description	Computer controlled Electrochemical workstation: Potentiostat/Galvanostat with Electrochemical Impedance Spectroscopy (Electrochemical Analyzer)
2	Model Name	Clearly mention make, model and model number of the equipment being offered. The quotation should include schematics of the Electrochemical workstation, specification sheet with detailed performance information
3	Multi-Channel Electrochemical Workstation Requirements	<ul style="list-style-type: none"> • No. of channels required 2 • Compliance Voltage: ± 12 V or more • Applied voltage: ± 10 V • Voltage accuracy: 1 mV or better • Voltage resolution: 5 μV or better • Current limit: 1 nA or less & 500 mA or more – minimum 5 ranges should be provided- • Current accuracy @ 0.1 % of the range or better • Current resolution: 0.005 % or better • At least 1 channel should have impedance Frequency range from 10 μHz to 7 Mhz or better • Amplitude: 1 mV to 2.3 Volt or better with the single and multi sine facility • Electrometer input impedance: 1 TΩ or more • Bias current: 10 pA • Data acquisition rate: 1000000 samples/sec • Minimum 2 additional voltage recording input (ADC) for 0 – 10 V range. Input received in this channel should be scalable and interpretable to control the software measurement protocols. (eg: recording optical sensor info, LED light source info etc..) • Minimum one number of DAC (0-10V) to control the external devices from main system
4	Software Requirements	<ul style="list-style-type: none"> • Voltammetry techniques- CV, Multiple CV, SWV, Staicase Voltammetry • Pulse: DPV, Normal Pulse, RNPV, Chrono aomperometry , Chronopotentiometry • Corrosion: Potentiostatic/Gavanostatic-Gavanodynamic, LPR, Tafel, ECN, CPT • Energy: charge/discharge Constant potential, constant current, constant power, Constant resistance/load, Calculation efficiency of cycle. • Software for Battery testing / Fuel cell characterisation / Supercapacitors analysis. • Complete analysis software for CV • EIS circuit fitting facility and software should capable of include our own design
5	Accessories required	<ul style="list-style-type: none"> • Electrochemical cell with Platinum counter Electrode • Glassy carbon Working Electrode

		<ul style="list-style-type: none"> • Ag/AgCl reference Electrode
6	Documentation	Two sets of operating manual for the equipment and control system should be provided in hard copies
7	Safety Norms	The instrument should be compliant with international norms for safety and environment

Terms and Conditions

1. User list of this Computer controlled Electrochemical workstation should be provided.
2. Minimum two years of comprehensive warranty.
3. Should provide contact details of your customers who bought this Computer controlled Electrochemical workstation from you in the last 5 years.
4. Cost, Insurance, Chennai Airport should be mentioned.
5. Maximum education discount, if any should be offered.