NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136119

No. DST-PC/Phy.2018/8/2646 **Dated:** 25/05/18

M/s Institute website

Sub: INVITATION OF QUOTATIONS FOR BIPOTENTIOSTAT/GALVANOSTAT

1. You are invited to submit your most competitive quotation for the following goods:

Sr.No.	Brief Description & Specifications of Goods	Quantity
1.	Bipotentiostat / Galvanostat (Detailed Specifications are attached)	01 Nos.

2. Necessary literature of the goods may please be sent to facilitate to take decision.

3. Payment will be made Online through RTGS/NEFT within 30 days after receipt of material in good condition and according to specifications. The Bank detail for making online payment may be indicated in the quotation.

4. The supplier shall deposit Earnest Money alongwith the Quotation amounting to Rs. 35000 /- in shape of Accounts Payee Demand Draft, Fixed Deposit Receipt, Bankers Cheque or Bank Guarantee from any commercial Bank in favour of the Director, National Institute of Technology, Kurukshetra. The Quotations without Earnest Money shall be rejected, the EMD will remain valid for a period of 45 days beyond the final validity period of quotation.

5. Performance Security @ 05% of the total value of the equipment may be furnished in shape of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any Commercial Bank in favour of the Director, NIT Kurukshetra valid upto 60 days after the date of completion of warranty .

6 The items must be supplied within delivery period or delivery period extended by the Institute on the request of the supplier on genuine grounds otherwise the penalty for delayed period @ 0.5% of the amount shall be charged for every week or part thereof and the maximum 10%..

7. The goods are not required exclusively for Research Purpose. The Duties are payable by the Institute.

8. The quotation should remain valid for a period not less than 60 days from the date of submission.

9. The firm must have got **GST No**. printing on their quotation. Please quote FOR NIT Kurukshetra.

10. The right of accepting or rejecting any quotation and to cancel the bidding process and reject all quotations without assigning any reason is reserved with the Institute.

11. The due date for receipt of quotation is **11.06.2018** and will be opened on next working day. Please quote on the top of the envelope our Ref. No. and due date of opening.

25/5/18

Prof-Incharge (Stores)

Technical Specifications for Bi-Potentiostat/Galvanostat with Impedence Spectroscopy

- Compliance Voltage: ±12V or better
- Current Range: 100 pA to 200 mA or better
- Channel: 02 (Two potential and one galvanic channel)
- Applied Potential Range: ±10V or more for both channels
- Scan Rate: 8000V/s or more
- Potential Resolution: 0.0015% of potential range or better
- Current Resolution: 0.0015% of current range or better (minimum 5fA)
- Data acquisition speed: 1000.000 samples/sec
- EIS Frequency Range/AC Impedence Frequency : 10μHz to 1MHz or higher
- Potentiostat Bandwidth: up to 8MHz or more
- Electrode configurations: 2, 3 & 4 electrode configurations
- Input impedence: 10^{12} ohm or better
- Interface: USB/Ethernet
- Simulation S/W for Impedence & CV

Techniques Required

1. Voltammetry techniques which includes Potentiostatic & Galvanostatic for electrochemical analysis
2. Pulse techniques
3. Corrosion technique
4. Fuel cell and super capacitor testing
5. Impedance spectroscopy
6. Photovoltaic /Battery testing
7. Equivalent fitting circuit software with simulation
8. RDE/RRDE
9. IR Compensation

Required Accessories.

Electrochemical Cell System includes 4 glass cells with one Cell top with following electrode

- Glassy Carbon electrode (3 No.)
- Gold working electrode (3 No.)
- Pt. working electrodes (3No.)
- Ag/AgCl reference (3 No.) (aq) with 2 Extra Frit
- Ag/AgCl reference (3 No.) (non aq) with 3 Extra Frit
- Calomel electrode (3 No.)
- Pt wire counter electrode (3 No.)
- Printed Glassy carbon electrode (for 3 electrode configuration) (40No.)
- Electrode polishing kit (2 No.)

- Heating System for Electrochemical Measurement (up to 400 ^{0}C)
- Heating Circulator for Electrochemical Measurement (up to 100 ^{0}C)

Computer and Software: The system should be supplied complete with software preloaded, latest PC as below configuration, software's along with a copy of the softwares on a CD.

- ❖ Desktop computer (i7 Processor), 8 GB RAM, 2TB HDD, DVD-RW, Windows 10 (64 bit) operating system, 24" LCD display or better.

Software: Suitable software and other interfacing & integration for carrying out the electrochemical measurements and analysis with high levels of reliability and accuracy. All necessary software, installation and training assistance should be provided.

Terms and Conditions:

Warranty (Including Service and maintenance): 1 Years, Supplier need to quote the AMC Charges for Three years separately after one year warranty.

Manual: One set of instruction and service manual

Demonstration and installation: Demonstration and Installation at Physics Department, NIT Kurukshetra. Training and demo must be conducted by the instrument engineer at NIT Kurukshetra free of cost.