JIWAJI UNIVERSITY, GWALIOR

TENDER NOTICE

Sealed Tenders are invited, from the manufacturers/their Indian subsidiary/ sole representative in India (or for this region) only, for supply of Potentiostat/Galvanostat (Electrochemical Workstation). For details please visit our website (www.jiwaji.edu).

Tender documents containing terms, conditions, specifications of the equipment, etc. can be obtained from the Store, Jiwaji University, Gwalior-474011 up to 5.00 PM of 24\textsuperscript{th} July, 2013 on payment of Rs. 1,000/- through DD drawn in favour of Registrar, Jiwaji University Gwalior. Alternatively, the tender form may be downloaded from the website www.jiwaji.edu and a demand draft for Rs. 1.000/- favouring the registrar, Jiwaji University, Gwalior may be attached.

The last date for receipt of tenders is 30\textsuperscript{th} July, 2013 (5.00 PM)

Registrar

Jiwaji University, Gwalior
Sealed tenders are invited for the supply of the instrument [POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)] in Jiwaji University, Gwalior, whose specifications are as follows:

- Compliance voltage: ± 20 V or better at ± 400 mA, Maximum Output Current: ± 400 mA or better at ± 20V,
- Output Voltage Range: ± 10V,
- Current Ranges smallest current range: ± 10 nA to current range 100 mA in eight ranges
- Resolution of applied potential: 160 µV, Resolution of measured potential: 0.4 µV
- Accuracy of the applied current: ± 0.2 % of the current range
- Measured current resolution: 30fA on 10 nA full scale range
- Potentiostat rise/fall Time: 300 ns or lower
- Gain bandwidth range of amplifier: 1 MHz, Bandwidth of electrometer: > 4 MHz
- Interface: USB interface for connection with PC
- Input bias current: < 1 pA
- Input Impedance of electrometer: > 100 GΩ // 8pF

**Frequency Response Analyzer (FRA)**

FRA module and software for EIS measurement. Module for EIS measurement with FRA32 MHz in potentiostatic and galvanostatic control, over a frequency range of 10 µHz to 1 MHz. Apart from the classical EIS, it should be possible to modulate other outside signals such as rotation speed of a rotating disk electrode or the intensity of a light source to perform Electro-hydrodynamic or Photo-modulated impedance spectroscopy. It should be supplied with powerful fit and simulation software for the analysis of impedance data. Frequency range 10 µHz – 30 MHz, Frequency range in 10 µHz – 1 MHz combination with PGSTAT. AC amplitude 0.25 mV to 0.30 Vrms in potentiostatic mode, mV to 3.2 Vrms (optional) extendable to 0.0002 - 0.3 times current range in galvanostatic mode. Data presentation: Nyquist, Bode, Admittance, Mott-Schottky, Data analysis: Fit and Simulation, Find circle, Element subtraction.

**Electrochemistry Cell**

It should consist of the following:
- Glass cell, 2mm diameter Pt disc working electrode, Pt wire Counter electrode 1 mm dia 40 mm length , Ag/AgCl reference (aqueous) and Ag/AgCl reference electrode (Non-Aqueous)

**Cell for Screen-printed electrodes**

Flow Cell for magnetic assays with screen-printed electrodes,

**Screen Printed Electrodes**


**Electrochemical Software**

Software should have facility to record additional signal viz EQCM, bi-potentiostat etc. Import/export ASCII. It should have facility to display up to 4 plots simultaneously. Comparison with previous experiments should be possible while experiments are in progress. The software should support following basic electrochemical measurements: Cyclic Voltammetry with scan rates from 10 µV/Sec to 200V/Sec, Tafel Plots, Differential Pulse Voltammetry, square Wave Voltammetry, Chrono-amperometry etc.
Tenders will be considered subject to the following terms and conditions.

1. All tenders must be accompanied by a Bank draft drawn in favour of Registrar, Jiwaji University, Gwalior for an amount which is equivalent to the 3% of the approx. total cost of the above instrument [POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)] as earnest money. Tender received without earnest money will be liable to be rejected.

2. Tenderers can obtain tender documents against payment of Rs.1,000 by Demand Draft in favour of Registrar, Jiwaji University, Gwalior on or before 24.7.2017 on any working day between 11 a.m. to 5 p.m.

3. The last date for submitting the tender is 30.7.2013 before 5.00 PM at office of the Registrar, Jiwaji University, Gwalior.

4. The tenders should agree to execute an agreement for proper supply, installation and satisfactory working of the instrument [POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)] exactly to the specification mentioned.

5. The prices should be inclusive of sales tax Installation and other charges as applicable. The exact details of taxes should be given separately.

6. Being an educational institute, it is entitled to issue concessional sales tax certificate. No other sales tax form is issued. If concessional sales tax certificate is not acceptable to the supplier, the actual rates of sales tax to be charged must be clearly mentioned.

7. This institute is exempted from payment of Central Excise duty vide Govt. Notification.......................................................... Necessary certificate copy to be provided by the university.

8. For imported balance the price should be without any custom duty. The institution is registered with Department of Science & Industrial Research (DSIR) Govt. of India vide Government notification No. 51/96 custom duty, necessary certificate copy to be provided by the university.

9. Manufacture name, their trademark and brand should invariably be mentioned in the tender and illustrated leaflets giving technical particulars / details etc. should be attached with the quotation to facilitate consideration in the offer.

10. In some cases an Indian subsidiary/ representative of the manufacturer have themselves quoted in response to the tender call as also their authorized dealer in India. The committee is of the opinion that in such situations only the bid direct from the manufacturers / their Indian
subsidiary/ sole representative in Indian (or for this region in India) should be considered.

11. The tenderer should quote their best willing price which should be valid for the period of ...... days from the due date of tender.
12. The minimum period of delivery of the instrument [POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)] should be quoted. Ready stock offer will get preference.
13. The quantities of each balance to be purchased may vary according to actual requirement at the time of placing order.
14. If there is any DGS & D rate contract of Government approved rates the same should be quoted be enclosing the copy of Rate Contract, which will get preference.
15. The tender should avoid the back use of vague terms such as ‘extra applicable.’
16. Quotation for the instrument [POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)] along with terms and conditions must be submitted in separate cover.
17. Offers received not according to our terms & conditions and within the time prescribed shall be rejected. Delay due to postal services of any kind will not be considered for acceptance of the tender.
18. In all matters of dispute, the decision of Registrar, Jiwaji University, Gwalior shall be final and binding on the tenderers.
19. The address of local office at Gwalior for maintenance along with the list of well-reputed organizations who have purchased the same instrument [POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)] should be provided.
20. List of spare parts must be supplied.
21. In case of an authorized dealer, certificate from manufacture must be attached as proof.

22. Date and time of opening of envelope is **August 02, 2013 at 3.30 pm** in the presence of intending tenderers or their representatives who may like to present in the office of the Registrar, Jiwaji University, Gwalior.
23. If any of dates of receipt/opening of tender happen to be declared as holiday, the schedule will be shifted to the next working days automatically.
24. The tender envelop should contain **three envelopes. “First” envelope** contains demand draft of 3 % of the approx. total cost of the instrument
as earnest money. An additional draft of Rs.1000 should be enclosed if the tender form is downloaded from the website.

“Second” envelope should be superscribed as Technical Bid for the instrument POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation). This should contain the specification of the instrument and terms & conditions.

The “Third” envelope should be superscribed as Commercial Bid for the instrument POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation). The above three envelopes should be placed in one envelop and should be superscribed as “Tender for instrument POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)”.

25. The Technical Bid envelope II should have the following documents.
   a. The terms and conditions of the tender format page no. 1 to 4 should be duly signed and sealed. The completely filled form part A should also be duly signed and sealed properly.
   b. A copy of the Registration letter of the Firm.
   d. A copy of PAN card.

26. The Commercial Bid Envelope III should have the detailed specifications of the instrument POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation) along with the transportation charges, transit insurance charges, transit octry charges and others if any (Excluding MPST/CST/VAT). Tenderer should mention the quoted price in words & figures separately.

27. Canvassing for support in any form for the acceptance of any tender is strictly prohibited. Any tenderer doing so will tender himself liable to penalties which may include removing of his name from the register of approved Suppliers.

28. Fax and conditional tenders shall not be accepted.

29. Any item or offer may increase in number or even might not be purchased without assigning any reason. The Registrar, Jiwaji University, Gwalior, reserves the right to accept or reject any or all tenders without assigning any reason thereof.
JIWAJI UNIVERSITY, GWALIOR

Part-A

Technical bid for the Purchase of the instrument POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)

1. Name of the Firm : ...........................................
2. Name of the Proprietor : ...........................................
3. Address of the Firm : ...........................................
4. Registration No. of the Firm : ...........................................
   (Enclose attachments)
5. Tax MPST/CST/VAT No. : .............................................
   (Enclose attachments)
6. PAN card No. of the Firm : .............................................
   (Enclose attachments)
   (Yes/No)
8. Is the firm agree to accept the rules and regulation of the tender : .............................................
   (Yes/No)
9. Firm’s Office Phone & Fax no. : .............................................
10. Firm’s full e-mail ID : .............................................

Signature of the Tenderer
Name :
Seal:
JIWAJI UNIVERSITY, GWALIOR

Part-B

Commercial bid for the Purchase of the instrument POTENTIOSTAT/GALVANOSTAT (Electrochemical Workstation)

1. Name of the firm : …………………………………..
2. Address of the Firm : …………………………………..
3. Phone no. : …………………………………..

Read carefully the general terms and conditions of the tender. In the following you should include the charges of transportation, transit insurance, transit charge, octry, levies and duties (excluding MPCST/CST/VAT) and others (if any, please specify)

Specifications of the instrument [Potentiostat/Galvanostat (Electrochemical Workstation)] are as follows:

Compliance voltage: ± 20 V or better at ± 400 mA. Maximum Output Current: ± 400 mA or better at ± 20 V,
Output Voltage Range: ± 10 V.
Current Ranges smallest current range: ± 10 nA to current range 100 mA in eight ranges
Resolution of applied potential: 160 µV, Resolution of measured potential: 0.4 µV
Accuracy of the applied current: ± 0.2 % of the current range
Measured current resolution: 30 fA on 10 nA full scale range
Potentiostat rise/fall Time: 300 ns or lower
Gain bandwidth range of amplifier: 1 MHz, Bandwidth of electrometer: > 4 MHz
Interface: USB interface for connection with PC
Input bias current: < 1 pA
Input Impedance of electrometer: > 100 GΩ // 8 pF

Frequency Response Analyzer (FRA)
FRA module and software for EIS measurement. Module for EIS measurement with FRA32 MHz in potentiostatic and galvanostatic control, over a frequency range of 10 µHz to 1 MHz. Apart from the classical EIS, it should be possible to modulate other outside signals such as rotation speed of a rotating disk electrode or the intensity of a light source to perform Electro-hydrodynamic or Photo-modulated impedance spectroscopy. It should be supplied with powerful fit and simulation software for the analysis of impedance data. Frequency range 10 µHz – 30 MHz, Frequency range in 10 µHz – 1 MHz combination with PST. AC amplitude 0.25 mV to 0.30 V \text{rms} in potentiostatic mode, m mV to 3.2 V \text{rms} (optional) extendable to 0.0002 - 0.3 times current range in galvanostatic mode. Data presentation: Nyquist, Bode, Admittance, Mott-Schottky, Data analysis: Fit and Simulation, Find circle, Element subtraction.

Electrochemistry Cell
It should consist of the following:
Glass cell, 2mm diameter Pt disc working electrode, Pt wire Counter electrode 1 mm dia 40 mm length, Ag/AgCl reference (aqueous) and Ag/AgCl reference electrode (Non-Aqueous)

Cell for Screen-printed electrodes
Flow Cell for magnetic assays with screen-printed electrodes,
Screen Printed Electrodes

Electrochemical Software
Software should have facility to record additional signal viz EQCM, bi-potentiostat etc. Import/export ASCII. It should have facility to display up to 4 plots simultaneously. Comparison with previous experiments should be possible while experiments are in progress. The software should support following basic electrochemical measurements: Cyclic Voltammetry with scan rates from 10 µV/Sec to 200V/Sec, Tafel Plots, Differential Pulse Voltammetry, square Wave Voltammetry, Chrono-amperometry etc.

Signature of the Tenderer
Name :
Seal: