झारखण्ड केन्द्रीय विश्वविद्यालय, राँची
CENTRAL UNIVERSITY OF JHARKHAND, RANCHI
(संसदीय अधिनियम के तहत 2009 में स्थापित केन्द्रीय विश्वविद्यालय)
(A Central University established by an Act of Parliament in 2009)

CUJ/ P&S/IAC/118/2013   **Dated: 22-02-2013**

Sealed quotations are invited for the article enclosed in the separate sheet subject to the terms and conditions given below:

The quotation should be addressed to The Stores Officer Central University of Jharkhand, Ratu-Lohardaga Road, Brambe, Ranchi, 835202 and should reach on or before *14-03-2013*. Quotations will be opened on *18-03-2013* at *11* A.M.

TERMS AND CONDITIONS

1. Quotations without any erasures and overwriting must be submitted in sealed cover addressed to the Stores Officer, Central University of Jharkhand, Ratu- Lohardaga road, Brambe, Ranchi- 835 205 super- scribed Tender/ Enquiry No. and the due date failing which, quotation may be ignored. Tender/ quotation should be sent through Post/ Courier/ By Hand.

2. The rate quoted should be inclusive of all packing, forwarding, sales tax, freight and insurance charges and should remain valid for our acceptance for minimum period of three months from the due date of opening of the quotations. The quotation should be CUJ consignee's site basis i.e. Central University of Jharkhand, Ratu- Lohardaga Road, Brambe, Ranchi.

3. Manufacturer's name of company of origin of materials offered must be clearly specified. Complete details of illustrated literatures/ or drawings, in original (not photocopies), if any must accompany all quotations.

4. The University will not entertain requests for revision in prices once quoted for whatever reason after the tenders are opened during the period of contract.

5. All goods must be delivered at our university at Ratu- Lohardaga Road, Brambe, Ranchi for inspection by our inspecting authority.

6. Full payment will be made within 30 days of the receipt and acceptance after inspection of supplies at destination, quotations containing different payment terms are liable to be ignored.

7. All goods must be delivered at out university at Ratu- Lohardaga road, Brambe, Ranchi (Stores & Purchase Section) free of cost after confirmed order.

8. Only Manufacturer/ Authorized dealer/ firms of repute dealing in the items listed in the quotation having experience in sale and repair/ maintenance, need apply.

9. Only latest models of items need to be quoted.

10. It should be mentioned specifically whether price quoted includes all taxes and duties. Sales tax and/ or other duties legally liable and intended to be claimed should be distinctly shown in the tender.

11. VAT/CST Registration Number and its validity should be indicated. Documentary evidences be supplied/ attached to the tender documents.

12. All rates shall be indicated both in words and figures. Where there is difference between the rates quoted in words and figures, rate quoted in words will prevail.

13. The supplier shall make delivery of the items within 30 days from the placement of the purchase order. The purchase order would be placed after assessing the requirement and hence, actual quantity may increase/ decrease.

14. The price of Tender Document is Rs. 1000/- only (One Thousand rupees only) (non-refundable). The Tender Document price may be attached in the form of Bank Draft in favour of "Central University of Jharkhand" payable at Ranchi.

15. The Tender Documents comprising of **Earnest Money Deposit** of Rs *24,000* only (*Rupees Twenty Four Thousand* only) **(refundable)** in the form of Bank Draft in favour of "Central University of Jharkhand" payable at Ranchi kept in the separate envelope super- scribed with the name of the same. The Tender Document must be enclosed with Earnest Money Deposit otherwise the tender document will be rejected. All the documents must be enclosed in a bigger size envelope super- scribed with the tender number and item name.

16. All legal disputes shall be under the jurisdiction of Jharkhand High court, Ranchi.

17. The University reserves the right to accept or reject any Bid, without assigning any reason thereof. No correspondence in this regard will be entertained.

18. All the participating firms should attach supporting documents in favour of:

    a) Have at least 5 years of experience in the field.
    b) Be registered with Directorate of Industries or Small Scale Industries or any other appropriate authorities.
    c) Have valid TIN Number for registration under VAT/CST
    d) Have PAN for Income Tax. Supporting documents for Income Tax return for the last Two years (i.e 2010-11, 2011-12).
    e) Documents as proof in respect of Technical bid along with supporting documents.
    f) Profile and Track Record of the agency. (3 years)
    g) Copy of signed Balance Sheets of last three years.
    h) Detailed terms & conditions regarding performance/ warranty/ bank guarantee/ Inspection/ LD/ penalty for delayed supplied will be elaborated in purchase order.

Chairman
(Academic Purchase)

S. NO	Description of the Item/Items	Quantity
1	Electrochemical Workstation with Potentiostat/Galvanostat The instrument will have the following technical specification: • Potential Range: -10 to 10V • Potentiostat rise time: <1μs • Compliance Voltage: 12 V • 3 and 4 –electrode configuration • current range: 250mA • Reference electrode input impedance:10^{12} ohm • Sensitivity scale: 10^{-12}-0.1A/V in 12 ranges • Input bias current: <50pA • Current measurement resolution: < 0.01pA • Minimum potential increment in CV: 100V • Potential update rate: 10MHz • Fast data acquisition: 16 bit @1MHz • Automatic and manual iR compensation • Flash memory for quick software up date • CV and LSV scan rate: 0.000001 to 5000 V/s • Potential increment during scan: 0.1 mV @1000 V/s • True integrator for CC • DPV and NPV pulse width: 0.001 to 10 sec • SWV frequency: 1 to 100 kHz • ACV frequency: 0.1 to 10kHz • SHACV frequency: 0.1 to 5 kHz • IMP frequency: 0.00001 to 100 KHz/1MHz • Automatic potential and current zeroing • Potential, current low-pass filters, covering minimum 8- decade frequency range, automatic and manual setting • Maximum data length: 150-8100 K selectable • Dimension : 10-14″ (W) 10-12″ (D), 4-5″ (H) • Weight: 12-16 Lb. • Both serial and USB connector should available in the instrument. **Techniques:** Cyclic Voltammetry (CV) Linear Sweep Voltammetry (LSV) Staricase Voltammetry (SCV) Tafel Plot Plots Chrono Amperometry (CA) Chrono Coulometry (CC) Differential Pulse Voltammetry (DPV) Normal Pulse Voltamemtry (NPV) Differential Normal pulse Voltamemtry (DPNV) Square Wave Voltammetry (SWV) AC Voltammetry (ACV) Second Harmonic AC Voltammetry (SHACV) Fourier Transform AC Voltammetry (FTACV) Amperometric i-t Curve (i-t) Differential Pulse Amperometry (DPA) Double Differential Pulse Amperometry (DDPA) Triple Pulse Amperometry (TPA) Integrated Pulse Amperometry Detection (IAPD) Bulk Electrolysis with Coulometry (BE) Hydrodynamic Modulation Voltammetry (HMV) Sweep-Step Functions (SSF) Multi-Potential Steps (STEP)	**01**

AC Impedance (IMP) – 10uHz to 1MHz
Impedance – Time (IMPT)
Impedance – Potential (IMPE)
Chrono Potentiometry (CP)
Chronopotentiometry with Current Ramp (CPCR)
Multi-Current Steps (ISTEP)
Potentiometric Stripping Analysis (PSA)
Electrochemical Noise measurements (ECN)
Open Circuit Potential – Time (OCPT)
Galvanostat
Full version of CV simulator
Impedance Simulator
IR Compensation
External Potential Input
Auxiliary Signal Measurement Channel
AC Impedance Plots
Bode : log Z vs log (freq)
Bode : Phase , vs log (freq)
Bode : log Z" & Z' vs log (freq)
Bode : log Y vs log (freq)
Nyquist ; Z" vs Z'
3D Plots
Admittance; Y" vs Y'
Warburg: Z'' & Z' vs $w^{1/2}$ w-angular frequency
Z' vs w Z''
Z' vs Z''/w
Cot (phase) vs $w^{1/2}$

Tafel Plot (TAFEL), which includes,
      Linear Polarisation, Pitting Corrosion,
      Corrosion current, Potentiodynamic deactivation etc.,

Electrodes:
Electrochemical Cell System includes,
4 glass cells with one Cell top
Pt Working Electrode
GC Working Electrode
Ag/AgCI Reference (aq)
Ag/AgCl Reference (non aq)
Calomel Reference Electrode
Pt Wire Counter Electrode
Electrode Polishing Kit
Cell Stand

Software:
interfaced with Windows-based software for Electrochemistry &all the techniques
New PC need to be supplied with the instrument
Free up-gradation of software for lifetime