



भारतीय  
प्रौद्योगिकी  
संस्थान  
काशी हिन्दू विश्वविद्यालय



INDIAN  
INSTITUTE OF  
TECHNOLOGY  
BANARAS HINDU UNIVERSITY

Annexure-IA



## SCHOOL OF MATERIALS SCIENCE AND TECHNOLOGY

### QUOTATION ENQUIRY

**Ref:** IIT (BHU)/SMST/IP/2016-17/Enq/RP-website

**Dates:** October 14, 2016

**Due Date: 05/11/2016**

Dear Sir,

Please submit your lowest rate for supplying the under mentioned items. Quotation in duplicate must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/CIF New Delhi.
2. Sales tax at concessional rate as applicable to educational institution.
3. Your sales tax registration number and TAN number.
4. Conditions of supply and terms of payment.
5. If you are a manufacture of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.
6. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
7. Please give undertaking as per annexure-I-B (as enclosed)

Quotation must be sent in a **sealed envelope** with word “**QUOTATION**”, our reference number, and due date as given above, clearly marked over it to the undersigned.

Sl. No.	Name of Items	Quantity
1	Electrochemical System with high frequency for battery and capacitor applications	1

#### **Description/Technical Specification**

Electrochemical system with high frequency capability (Potentiostatic / Gavanostatic with EIS) for electrochemical and impedance measurements of desired specifications as given below:

- Voltage compliance:  $\pm 30V$  or better
- Current compliance:  $\pm 1A$  or better
- Applied voltage range:  $\pm 30V$  or better
- Potentiostat rise/fall time: 50ns (approx)
- Applied voltage resolution:  $5\mu V$  or better
- Maximum scan rate: 25KV per second or better
- Applied current range:  $\pm 1A$  or better
- Min current range / resolution:  $\pm 4nA / 122fA$
- Electrometer bandwidth: 7 MHz or better
- Electrometer input impedance: Min  $10^{12}\Omega$  or better
- Input bias current:  $\leq 5pA$  or better
- Measuring voltage resolution:  $< 250\mu V$  or better
- Measuring current ranges: 4nA to 1 A auto-ranging in 10 ranges (approx)
- Frequency range: Integrated FRA with 10 $\mu$ Hz to 10MHz (desired)

- Minimum AC amplitude: 0.1mV RMS or better
- Sweep: Linear or Logarithmic with IR compensation (Positive Feedback & Dynamic IR)
- Data acquisition:

### **Software requirements:**

Software should be capable to perform & analysis the following techniques

- *Open Circuit, Linear scan voltammetry, Cyclic voltammetry (single & Multiple), Staircase voltammetry*
- *Chronoamperometry, Chronopotentiometry, Chronocoulometry*
- *Recurrent potential and current pulses*
- *Pulse Voltammetry techniques ( Normal , reverse etc..)*
- *Zero resistance ammeter (ZRA)*
- *Galvanic Corrosion, Cyclic Polarization, Linear Polarization, Tafel, Potentiostatic, Potentiodynamic*
- *Galvanostatic, Galvanodynamic*
- *Batteries charge / discharge*
- *Potentiostatic EIS and Galvanostatic EIS*
- *Internal resistance Determination*
- *Charge / Discharge cycling, Charge / discharge operating with voltage / current/ resistance/ power*

### **Conditions:**

Price: Net inclusive of all taxes

Supply: 4-6 week after receiving order.

Warranty: 3years

### **Rajiv Prakash**

#### **Professor**

School of Materials Science and Technology

Indian Institute of Technology,

Banaras Hindu University, Varanasi-221005

**UNDERTAKING**

***WE HEREBY UNDERTAKE THE FOLLOWING:***

- 1.** We will not sell the product (s) to other institutions, bodies and also in the market on the rates less than those quoted by us to the University.
- 2.** The goods on which Sales Tax has been charged are not exempted for payment of Sales Tax under C.S.T. Act or U.P.S.T. Act or the rules made there under and the amount mentioned on account of Sales Tax on goods is not more than what is payable under the provisions of the relevant Act or Rules made there under.
- 3.** The rate of Excise Duty mentioned in the quotation is in accordance with the provisions of the rules and the same is payable to the Excise Authorities in respect of the stores.
- 4.** The goods / Stores / articles offered shall be of the best quality and workmanship and their supply will be strictly in accordance with the technical specifications and particulars as detailed in the quotation.
- 5.** The information furnished by us in the quotation is true and correct to the best of our knowledge and belief.
- 6.** We have read and understood the rules, regulations, terms and conditions and agree to abide by them.

***Authorised Signatory***  
(Seal)

**SCHOOL OF MATERIALS SCIENCE AND TECHNOLOGY  
INDIAN INSTITUTE OF TECHNOLOGY  
BANARAS HINDU UNIVERSITY  
VARANASI – 221 005**

**TO BE RETURNED**

Following proforma should be filled in and duly signed by the firm and sent alongwith the quotation. (Please refer to the detailed instructions/notes before filling this proforma).

1. Validity of the offer : .....
2. Approximate Delivery Period : .....
3. (a) Whether rates have been quoted F.O.R. site and covers packing forwarding and insurance charges. : YES / NO  
(b) If not, please mention the same : .....
4. (a) Whether the prices are inclusive of Sales Tax and other taxes. : YES / NO  
(b) If not, kindly specify the amount / rate : .....
5. If the Sales Tax is charged extra, declaration for charging Sales Tax correctly attached. : YES / NO
6. (a) Whether supply will be made directly or through any Local / Regional / Authorized Dealer / Stockist : Directly / Stockist / Authorized Dealer  
(b) If through a Stockist / Dealer : -  
(i) Name and full address of the Party : .....  
.....  
(ii) Whether the order to be placed with the : Principal / Stockist / Dealer  
(iii) Who will raise the bill : Principal / Stockist / Dealer  
(iv) Cheques will be drawn in favour of : Principal / Stockist / Dealer  
(v) Whether any Delivery, Packing and Forwarding : YES / NO  
Charges will be payable to local Stockist/Dealer : (Please specify the amount/percentage etc, if any)
7. Our terms of payment (Please indicate your preference by a (✓) mark). Please note that no other payment terms are likely to be accepted.  
(a) **For Local Firms or if the bills are raised by the**

**Local Dealers.**

(i) 100% Payment on bill basis : .....

**OR**

(ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report.

**(Only under exceptional cases)**

**(b) If the bills are raised by outstation Firms**

(i) 100% Payment on bill basis : .....

**OR**

(ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation

and satisfactory report : .....

**OR**

(iii) D.G.S. & D. Terms of Payment for D.G.S. & D

Rate Contract items : .....

**OR**

(iv) 75% against Proforma Invoice (at site) or documents through Bank and 25% after receipt of materials in good condition, installation and satisfactory report.

: .....

**OR**

(v) 90% payment against Proforma Invoice (at site) or documents through bank and 10% after receipt of materials in good condition, installation and satisfactory report (Only under special Circumstances).

: .....

8. Whether any Excise Duty is payable on the items. : YES / NO  
If yes, indicate the amount / percentage. : .....%

9. Whether any installation charges are payable extra. : YES / NO  
 If yes, amount to be specified. : .....
10. Whether any discount for educational institution :  
 offered on the printed price list of the manufacturer. : YES / NO  
 Please mention the amount / percentage. : .....
11. Whether the product is on DGS &D/D.I. Rate contract. :  
 If yes, please enclose a photocopy of the same. : YES / NO
12. Whether the product bears I.S.I. Mark. YES / NO  
 If yes, please mention the I.S.I. License no. : .....
13. (a) Whether the firm is Sales Tax payer. : YES / NO  
 If yes, please mention the Sales Tax Numbers. : .....
- (b) Whether the Local Dealer(s) is / are Sales Tax  
 payer(s) : YES / NO  
 If yes, please mention the Sales Tax numbers of each : .....
14. Whether printed / authenticated price list of the Firm's  
 Products and Catalogue etc. enclosed. : YES / NO

Signature of the Authorised Official with Seal