



तेजपुर विश्वविद्यालय / TEZPUR UNIVERSITY  
(संसद के अधिनियम द्वारा स्थापित केंद्रीय विश्वविद्यालय)  
(A Central University established by an Act of Parliament)  
कुल सचिव का कार्यालय/ OFFICE OF THE REGISTRAR  
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**SHORT QUOTATION NOTICE**

TU/11-24/Pur/Qtn/2017-18/2341-A. dated: 29.08.2017.

Sealed quotations are invited from reputed manufacturers/authorized dealers/vendors for supply, installation & commissioning etc. of following items required for the DBT Sponsored Research Project of Dr. Sanjay Pratihar, Department of Chemical Sciences, Tezpur University.

**Item with Specifications:**

Sl. No	Item	Specifications
1.	Electrochemical Impedance Spectrometer Potentiostat/Galvanostat with EIS	<p>The specifications for instrument are as follows:</p> <ul style="list-style-type: none"><li>• Current ranges : <math>\pm 10\text{nA}</math> to <math>\pm 500\text{mA}</math>, or better</li><li>• Compliance voltage: <math>\pm 12\text{V}</math>, or better</li><li>• Applied Potential range: <math>\pm 10\text{V}</math>, or better</li><li>• Voltage Resolution: <math>1\mu\text{V}</math>, or better</li><li>• Current Resolution: <math>760\text{fA}</math>, or better</li><li>• Potentiostat Rise time: <math>&lt;500\text{ns}</math>, or better</li><li>• Impedance Frequency range: <math>10\mu\text{Hz}</math>- <math>7\text{MHz}</math>, or better</li><li>• AC Amplitude: <math>0.5\text{mV}</math> to <math>2.5\text{V}</math>, or better</li><li>• Acquisition speed: <math>1,000,000</math> samples/second, or better</li><li>• Bandwidth of electrometer: <math>6\text{MHz}</math>, or better</li><li>• Electrode configurations: 2, 3, 4 &amp; 5 electrode configurations.</li><li>• Interface: USB/Ethernet for fast data Acquisition.</li><li>• Floating facility is required.</li><li>• Auxiliary input and output should be available to connect external devices like RDE/RRDE, QCM, pHmeter etc.</li></ul> <p><u>The Software requirements are as follows:</u></p> <ul style="list-style-type: none"><li>• Battery/Super capacitor testing software</li><li>• Solar &amp; Photovoltaic software</li><li>• Impedance measurement facility, constant load discharge, constant current constant power etc..</li><li>• Pulse Measurement software</li><li>• Voltammetry software</li><li>• Fuel cell/photovoltaic testing software</li><li>• Pulse software including DPV, NPV, RNPV, SWV etc</li><li>• Corrosion software including LPR, Tafel etc.</li><li>• Equivalent fitting circuit software</li></ul> <p>The instrument should be supplied with following Accessories:</p> <ul style="list-style-type: none"><li>• VC-4 Voltammetry cell (Qty. 1No)</li><li>• PTE Platinum Counter Electrode (Qty. 1No)</li><li>• GCE Glassy carbon electrode (OD: 6 mm – ID: 3.0 mm) (Qty. 2No.)</li><li>• RE-1B Reference Electrode (Ag/AgCl – length: 70 mm – OD: 6 mm) (Qty. 1No.)</li><li>• Calomel Reference Electrode (Qty. 1No.)</li><li>• Non Aqueous Reference Electrode (Qty. 1No.)</li></ul> <p>Desktop Computer &amp; Printer:</p>



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		<ul style="list-style-type: none"><li>• One Suitable Desktop/Laptop Computer with printer will be supplied with the system at free of cost.</li><li>• One UPS for running the instrument/ accessories for 2 hours should be quoted</li></ul> Warranty: 02 year
2.	UV-Visible Spectrophotometer	<p>Technical Specification:</p> <ul style="list-style-type: none"><li>• Wavelength range: 190 to 900/1,100 nm or, better</li><li>• Band pass: 1 nm or, better</li><li>• Scan speed: 10, 40, 100, 200, 400, 800, 1200, 2400, 4800, 6000 nm/min</li><li>• Wavelength accuracy: <math>\pm 0.3</math> nm (Xe: 260.6, 484.3, 881.9 nm; Hg: 253.7, 435.8, 546.1 nm) or, better</li><li>• Baseline stability: 0.0005 Abs/h (260 nm, 2 hrs. after power-on) or, better</li><li>• Noise level: 0.0001 Abs or less (RMS, 260 nm, 0 Abs) or, better</li><li>• Baseline flatness: <math>\pm 0.0009</math> Abs (200 to 950 nm) or, better</li><li>• Light source: Xenon (Xe) flash lamp or, better</li><li>• Detector: Silicon photodiode/PMT</li><li>• Photometric range: Abs: -3.3 to 3.3 Abs 0 to 300%T</li><li>• Photometric accuracy: <math>\pm 0.002</math> Abs (0 to 0.5 Abs) or better <math>\pm 0.004</math> Abs (0.5 to 1.0 Abs) (certified for NIST SRM 930)</li><li>• Dimensions: 510 mm (W) x 490 mm (D) x 280 mm (H) or better</li><li>• Power requirements: 100, 115, 220, 230 or 240 V, 50/60 Hz, 150 VA</li><li>• POWER CONSUMPTION: 70 W or less</li><li>• Light source should be guaranteed for 7(seven) years</li><li>• Should have inbuilt automatic 6-cell turret as standard equipment</li></ul> <p>Software Should be able to measure the following:</p> <ul style="list-style-type: none"><li>• Concentration measurement</li><li>• Absorbance/Transmittance measurement</li><li>• Nucleic Acid measurement</li><li>• Wavelength scan measurement</li><li>• Time change measurement</li><li>• Monitor measurement</li></ul> <p>The instrument should be supplied with following Accessories: Water Circulated Cell Holder/Peltier Thermostating with stirrer: A magnetic stirrer agitates the sample solution. Allowing measurement with high temperature accuracy. Using Starna's magnetic stirred micro cells allows for measuring a small amount of sample. &lt;Water circulated cell holder with stirrers&gt;</p> <p>Item Specifications: Operating temperature range: 5 to 60°C or better Room temperature : 25 °C, Sample : Distilled water The achieving temperature of sample is dependent on a circulating</p>



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		<p>constant temperature bath setting. Temperature stability in cell: <math>\pm 0.3</math> °C Room temperature : 25 °C Sample : Distilled water Measurement time : 60 s Time to constant temperature Within 15 min. Room temperature : 25 °C Sample : Distilled water Achieving temperature : 15 °C or 50 °C Holder base for Solid Samples like glass filter Glass filter holder: Used to measure the transmittance or absorbance of a plate-like solid sample such as a glass filter.</p> <ul style="list-style-type: none"><li>➤ Sample thickness: 0.5 to 5 mm</li><li>➤ Sample size: 12 × 25 mm to 55 × 100 mm</li></ul> <ul style="list-style-type: none"><li>• Desktop Computer &amp; Printer: One Suitable Desktop Computer with printer will be supplied with the system at free of cost.</li><li>• One UPS for running the instrument and accessories for 2 hours should be quoted</li><li>• Attachment for plate like solid sample preparation</li><li>• Six number of standard Quartz Cuvettes should be quoted</li></ul> <p>Warranty: 02 year</p>
3.	Rotary Vacuum Evaporator system with Diaphragm pump	<p>Technical specification of rotary Vacuum Evaporator system with Diaphragm pump</p> <ol style="list-style-type: none"><li>1. Rotary Evaporator with manual or Motor lift including diagonal condenser, 1 liter Evaporating flask and 1 liter Receiving flask</li><li>2. The detachable operating panel can be attached at eye level for our convenience outside of closed fume hood allows for highest operational feature.</li><li>3. Sample flask can be accommodate 50ml to 5000ml with different sizes.</li><li>4. Heating bath temp can be controlled 20°C to <math>\geq 200</math>°C with digitally.</li><li>5. Should have provision for automatic distillation process by pre-programme.</li><li>6. Provision for automatic pressure control for unknown solvent separation of different boiling points.</li><li>6. Integrated vacuum controller through suitable valve for automatic vacuum control and it display in large digital control pane.</li><li>7. Large Digital Display with Microprocessor control of Heating bath temperature, Rotation Speed and vacuum.</li><li>8. Heating bath capacity should be <math>\geq 4.3</math> liter.</li><li>9. Heating bath with safety handles and drain spout available</li><li>10. Heating bath over temperature cut-off 5 Deg C for overheat protection.</li><li>11. Display should be minimum 4" LCD/ Graphic display</li><li>12. Rotation Speed up to <math>\geq 270</math> RPM controlled by digitally</li><li>13. Stand with clamp to support condenser as a standard supply.</li><li>14. All parts which are in contact with the media consist of Long Life graphite filled PTFE seal that will be No corrosion or rusting and</li></ol>



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		<p>chemically resistant.</p> <p>15. All Specification must be reflected to your supporting brochure</p> <p>16. Solvent directory of minimum 30 no. can be saved/ deleted or insert as our require work.</p> <p>17. Standard warranty should be minimum 3 years.</p> <p>18. Supply Voltage ( V / Hz ): 220-240V /50</p> <p>The specifications of Diaphragm Vacuum Pump are as follows:</p> <p>1. Oil free Double stage diaphragm vacuum pump.</p> <p>2. Suction Capacity minimum <math>\geq 0.70</math> m<sup>3</sup> / hour</p> <p>3. Ultimate Vacuum in mbar: <math>\leq 12</math></p> <p>4. Long Life graphite filled PTFE vacuum seal that will be No corrosion or rusting and chemically resistant.</p> <p>5. This unit can be combined with a condensate cooler for good environment.</p> <p>6. Supply Voltage ( V / Hz ):230-240 V /50</p> <p>7. Standard warranty should be minimum 3 years.</p> <p>The specifications of Chiller are as follows:</p> <ul style="list-style-type: none"><li>• Optimized for high performance at low temperatures</li><li>• Cooling at ambient temperatures as high as 35°C</li><li>• Low flow shutoff and alarm, high and low temperature alarms</li><li>• Working temp. range: -100C to 300C</li><li>• Temp. stability: <math>\pm 0.10C</math></li><li>• Cooling capacity: 140W @ -100C                      250W @ 00C 390W @ +100C 520W @ +200C                      600W @ +300C</li><li>• Max. pressure: 4.4psi (0.3bar)</li><li>• Max. flow: 1.8gpm (6.8L/min)</li><li>• Reservoir capacity: 0.7gallons / 2.65lietrs</li></ul> <p>One suitable Voltage stabilizer should be quoted Warranty: Minimum 03 years</p>
4.	Deep Freeze: (-20) Horizontal	<p>Technical specification Size:1240 x740x 855 mm Capacity:385 Ltr Spec: DuelTemperature (cooling and Freezing) With Fast freezing area of ice making and interior Light Temp Range: 0-10/ &lt; -18 One suitable Voltage stabilizer should be quoted Warranty: Minimum 03 years</p>

**GENERAL TERMS & CONDITIONS:**

1. No separate tender paper will be issued from the office; one should only download the specifications/List from the website.
2. **The rates should be preferably quoted in Indian Rupee and FOR Tezpur University, Napaam basis. Charges for clearing and transportation should be incurred by the supplier.**
3. *Quotations should be accompanied by i) An EMD (in the form of Demand Draft/Call Deposit/TDR) of ₹. 5000/- (Rupees Five Thousand) only drawn/pledged in favor of Registrar, Tezpur University, payable at Tezpur. **No request for consideration of earlier deposited EMD will be considered.** ii) A non-refundable application (quotation) fee of ₹.1000.00 (Rupees One Thousand) only must be paid only by Demand Draft drawn in favour of Registrar, Tezpur University payable at Tezpur.*



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4. The rates should be exclusive of GST and applicable GST in % should be clearly indicated.
5. Applicable levies, surcharge and discounts should be clearly indicated itemwise.
6. Quoted rates should be valid at least for a period of 01 year.
7. The rates should be quoted along with supporting documents of specifications and technical features and list of users.
8. The system must be installed at the laboratory, and after installation a basic training must also be provided by the supplier or their Indian counterpart without any additional costs.
9. All the quotations must be accompanied with supporting documents and / or literature.
10. Demonstration may be sought from the vendors for authentication of quoted specification.
11. Details of availability of after sales support will have to be furnished. After sales support, directly from manufacturer and from Assam (Guwahati / Tezpur) will be preferred.
12. The University is exempted from paying Custom and Excise duty.
13. Proprietary items should be quoted with sole Manufacturer/Distributorship certificate.
14. Warranty/Guarantee period should be specifically mentioned in the quotation.
15. No Advance payment will be made. However, for foreign supplier, advance payment will be made either by FDD/Wire Transfer/LC. In such cases 10% Performance Bank Guarantee should be submitted before issuing FDD/Wire Transfer/LC, covering the warranty period.
16. Performance Bank Guarantee also has to be submitted for Major equipments of Indian origin, covering the warranty period.
17. Items of Foreign origin should have Insurance up to installation on site.
18. The University reserves the right to accept or reject any or all the quotations without assigning any reason.
19. Quoted price should be inclusive of essential accessories and should be CIF Tezpur University, Tezpur
20. Applications for release of EMD should be submitted to the Registrar/ Joint Registrar.
21. Apart from the above terms and conditions the University has the right to include any other terms and conditions as and when felt necessary.
22. **Quotation should be submitted in the DROP BOX placed in the reception of the Administrative Building of the University within 21 days from the date of publication of this notice. If posted/couriered, should reach within 21 days addressed to "The Joint Registrar, Tezpur University". The Quotation Notice No. and date should be clearly superscribed in the envelope/packet containing the quotation.**

Sd/- Joint Registrar  
Tezpur University