

**DELHI TECHNOLOGICAL UNIVERSITY**

(FORMERLY DELHI COLLEGE OF ENGINEERING)

GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI  
SHAHBAD DAULATPUR: BAWANA ROAD: DELHI-110 042

Ph. 27296326

No. F. 211/17-03/11-12/p

Dated:

E-Tenders along with illustrated literature/leaflets for the supply/execution of item(s)/stores/work detailed below are invited in two-bids system through 'e' procurement solution only as per the guidelines and terms & conditions given in tender document - details of the NIT along with terms & conditions, specifications etc. can be seen/downloaded at/from the website.

The interested tenderers should upload duly signed tender form and their bids along with scanned copies of all the relevant certificates, documents etc. in support of their technical bids and price bids – all duly signed - on the: <https://govtprocurement.delhi.gov.in>. latest by **20/02/12. up to 2.00P.M .** An index prepared after pagination of all tender document and enclosures I document may also be uploaded. The technical bids will be opened online on **20/02/11 at 2.30 P.M** for only those bidders whose DDR/FDR for EMD amount is dropped in Tender Box placed in the office of Asst. Registrar (S&P) in the presence of the bidders who wish to be present and also displayed on the website and the financial bids of eligible firms shall be opened on **28/02/12**. For participation in the tender through e-procurement solution, the enterers are required to have digital certificate and get registered with application Service Provider NIC.

Tender document is also available for viewing on the website of Delhi Technological University, Delhi at [www.dce.edu](http://www.dce.edu) . and [www.dce.ac.in](http://www.dce.ac.in)

Yours faithfully,

A.R (S&P),

**EMD: Rs. 60,000/-**

| S. No    | Particulars /Description        | Reqd.Qty     |
|----------|---------------------------------|--------------|
| <b>1</b> | <b>Electrochemical Analyzer</b> | <b>01 No</b> |

**SPECIFICATION :-**-----

| S.No    | Description of items  | Actual Quantity Reqd                    |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|---------|---|---|-------------|---|--------------------|---------------|---|---------|---------------|---|---------------|----------|---|------------------------|---------------|---|---------------------------|---------|---|-----------------|-----------------|---|--------------------|--------|---|----------------|------------------------------|---|---------------------------|-------|----|------------------|---------|----|----------------|---|----|-------------------------------|-------|----|-----------------|----------------|----|-------------------|---------------------------------|----|-------------|----------|----|-----------|-------------------------------------|----|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|----|---|--|--|---|--|-----|--------------------|--|-----|--------------------------------|--|-----|------------|--|-----|-------------------|--|-----|--|--|--|---|--|-----|-----------------|--|-----|-------------------------|--|-----|------------------|--|----|---|--|-----|--|--|-----|--|--|-----|--|--|-----|---|--|-----|---|--|-----|---------------------------------|--|-----|--|--|--------|
|         | <p>Complete Specification for Potentiostat/Galvanostat<br/>(Electrochemical Analyzer for Biotechnology Department)</p> <table border="0"> <thead> <tr> <th data-bbox="289 447 313 468">Item(s)</th> <th data-bbox="833 447 938 468">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="289 474 305 495">1</td> <td data-bbox="402 474 578 495">Compliance voltage</td> <td data-bbox="833 474 946 495">± 28 V at 2 A</td> </tr> <tr> <td data-bbox="289 501 305 522">2</td> <td data-bbox="402 501 475 522">Current</td> <td data-bbox="833 501 946 522">± 2 A at 30 V</td> </tr> <tr> <td data-bbox="289 529 305 550">3</td> <td data-bbox="402 529 524 550">Voltage range</td> <td data-bbox="833 529 914 550">± 10.0 V</td> </tr> <tr> <td data-bbox="289 556 305 577">4</td> <td data-bbox="402 556 621 577">PGSTAT Gain Band width</td> <td data-bbox="833 556 963 577">1 MHz or more</td> </tr> <tr> <td data-bbox="289 583 305 604">5</td> <td data-bbox="402 583 638 604">Bandwidth of electrometer</td> <td data-bbox="833 583 914 604">&gt; 4 MHz</td> </tr> <tr> <td data-bbox="289 611 305 632">6</td> <td data-bbox="402 611 557 632">Input impedance</td> <td data-bbox="833 611 979 632">&gt;1 T Ohm // 8pF</td> </tr> <tr> <td data-bbox="289 638 305 659">7</td> <td data-bbox="402 638 557 659">Input Bias Current</td> <td data-bbox="833 638 898 659">&lt; 1 pA</td> </tr> <tr> <td data-bbox="289 665 305 686">8</td> <td data-bbox="402 665 540 686">Current Ranges</td> <td data-bbox="833 665 1076 686">10nA to 1A in several ranges</td> </tr> <tr> <td data-bbox="289 693 305 714">9</td> <td data-bbox="402 693 621 714">Resolution at 10 nA range</td> <td data-bbox="833 693 881 714">30 fA</td> </tr> <tr> <td data-bbox="289 720 305 741">10</td> <td data-bbox="402 720 540 741">System rise time</td> <td data-bbox="833 720 914 741">&lt; 250ns</td> </tr> <tr> <td data-bbox="289 747 305 768">11</td> <td data-bbox="402 747 524 768">Noise &amp; Ripple</td> <td data-bbox="833 747 1157 768">&lt; 25 µV rms referred to external signal</td> </tr> <tr> <td data-bbox="289 774 305 795">12</td> <td data-bbox="402 774 670 795">Measured Potential resolution</td> <td data-bbox="833 774 898 795">0.3µV</td> </tr> <tr> <td data-bbox="289 802 305 823">13</td> <td data-bbox="402 802 557 823">Frequency Range</td> <td data-bbox="833 802 979 823">10µHz to 1 MHz</td> </tr> <tr> <td data-bbox="289 829 305 850">14</td> <td data-bbox="402 829 573 850">Applied Amplitude</td> <td data-bbox="833 829 1125 850">0.5 mV to 1000 mV in two ranges</td> </tr> <tr> <td data-bbox="289 856 305 877">15</td> <td data-bbox="402 856 508 877">Input Range</td> <td data-bbox="833 856 930 877">± 5000mV</td> </tr> <tr> <td data-bbox="289 884 305 905">16</td> <td data-bbox="402 884 475 905">Interface</td> <td data-bbox="833 884 1141 905">USB/RS232 or other interface for PC</td> </tr> <tr> <td data-bbox="289 911 305 932">17</td> <td data-bbox="402 911 557 932">System Software:</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 938 963 980">DATA PRESENTATION: It should be possible to display the recorded data points in a dedicated interface of the software.</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 987 865 1008">It should have an advanced 2D and 3D graphics engine</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1014 930 1035">It should have facility to display up to 4 plots simultaneously.</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1041 833 1083">Comparison with previous experiments should be possible while experiments are in progress.</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1089 898 1131">Plotting tools like individual axis scaling, multiple Y-axes, plot additions, zooming and overlays to help the user</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1138 751 1159">display the relevant information in clear,</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1165 735 1186">publication-ready graphs. It should be</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1192 719 1213">possible to directly paste the data or</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1220 751 1241">image file into a paper or a presentation.</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1247 800 1268">ADVANCED DATA ANALYSIS: Software should</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1274 784 1295">have a dedicated data analysis environment,</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1302 784 1323">large number of data analysis tools and an</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1329 833 1350">electrochemical spreadsheet to analyze the data,</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1356 751 1377">perform calculation and create new plots</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1383 898 1404">without having to export the files to third-party software.</td> <td></td> </tr> <tr> <td data-bbox="289 1411 305 1432">18</td> <td data-bbox="402 1411 881 1432">The system and the software should be capable</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1438 881 1459">of performing following electrochemical measurements:</td> <td></td> </tr> <tr> <td data-bbox="289 1465 305 1486">(a)</td> <td data-bbox="402 1465 573 1486">Cyclic Voltammetry</td> <td></td> </tr> <tr> <td data-bbox="289 1493 305 1514">(b)</td> <td data-bbox="402 1493 686 1514">Linear sweep Voltammetry( LSV)</td> <td></td> </tr> <tr> <td data-bbox="289 1520 305 1541">(c)</td> <td data-bbox="402 1520 492 1541">TAFEL plot</td> <td></td> </tr> <tr> <td data-bbox="289 1547 305 1568">(d)</td> <td data-bbox="402 1547 573 1568">Chrono techniques</td> <td></td> </tr> <tr> <td data-bbox="289 1575 305 1596">(e)</td> <td data-bbox="402 1575 865 1596">Voltammetry Techniques: Sampled DC Voltammetry ,</td> <td></td> </tr> <tr> <td></td> <td data-bbox="402 1602 833 1623">Differential pulse and normal pulse Voltammetry</td> <td></td> </tr> <tr> <td data-bbox="289 1629 305 1650">(f)</td> <td data-bbox="402 1629 557 1650">IR Compensation</td> <td></td> </tr> <tr> <td data-bbox="289 1656 305 1677">(g)</td> <td data-bbox="402 1656 638 1677">Square Wave Voltammetry</td> <td></td> </tr> <tr> <td data-bbox="289 1684 305 1705">(h)</td> <td data-bbox="402 1684 557 1705">Steps and Sweeps</td> <td></td> </tr> <tr> <td data-bbox="289 1711 305 1732">19</td> <td data-bbox="402 1711 833 1732">Electro-Chemical Software data analysis features:</td> <td></td> </tr> <tr> <td data-bbox="289 1738 305 1759">(a)</td> <td data-bbox="402 1738 800 1759">Kinetic and wave log analysis, IR compensation</td> <td></td> </tr> <tr> <td data-bbox="289 1766 305 1787">(b)</td> <td data-bbox="402 1766 865 1787">CV fit and simulation, convolution and de-convolution,</td> <td></td> </tr> <tr> <td data-bbox="289 1793 305 1814">(c)</td> <td data-bbox="402 1793 735 1814">Automatic and interactive peak search,</td> <td></td> </tr> <tr> <td data-bbox="289 1820 305 1841">(d)</td> <td data-bbox="402 1820 898 1841">Linear , exponential and polynomial base line correction,</td> <td></td> </tr> <tr> <td data-bbox="289 1848 305 1869">(e)</td> <td data-bbox="402 1848 930 1869">Linear regression, integration and differentiation, smoothing</td> <td></td> </tr> <tr> <td data-bbox="289 1875 305 1896">(f)</td> <td data-bbox="402 1875 703 1896">FFT and Weighted moving average</td> <td></td> </tr> <tr> <td data-bbox="289 1902 305 1923">(g)</td> <td data-bbox="402 1902 963 1923">Automatic polarization resistance determination using Tafel Plot</td> <td></td> </tr> </tbody> </table> | Item(s)                                 | Description | 1 | Compliance voltage | ± 28 V at 2 A | 2 | Current | ± 2 A at 30 V | 3 | Voltage range | ± 10.0 V | 4 | PGSTAT Gain Band width | 1 MHz or more | 5 | Bandwidth of electrometer | > 4 MHz | 6 | Input impedance | >1 T Ohm // 8pF | 7 | Input Bias Current | < 1 pA | 8 | Current Ranges | 10nA to 1A in several ranges | 9 | Resolution at 10 nA range | 30 fA | 10 | System rise time | < 250ns | 11 | Noise & Ripple | < 25 µV rms referred to external signal | 12 | Measured Potential resolution | 0.3µV | 13 | Frequency Range | 10µHz to 1 MHz | 14 | Applied Amplitude | 0.5 mV to 1000 mV in two ranges | 15 | Input Range | ± 5000mV | 16 | Interface | USB/RS232 or other interface for PC | 17 | System Software: |  |  | DATA PRESENTATION: It should be possible to display the recorded data points in a dedicated interface of the software. |  |  | It should have an advanced 2D and 3D graphics engine |  |  | It should have facility to display up to 4 plots simultaneously. |  |  | Comparison with previous experiments should be possible while experiments are in progress. |  |  | Plotting tools like individual axis scaling, multiple Y-axes, plot additions, zooming and overlays to help the user |  |  | display the relevant information in clear, |  |  | publication-ready graphs. It should be |  |  | possible to directly paste the data or |  |  | image file into a paper or a presentation. |  |  | ADVANCED DATA ANALYSIS: Software should |  |  | have a dedicated data analysis environment, |  |  | large number of data analysis tools and an |  |  | electrochemical spreadsheet to analyze the data, |  |  | perform calculation and create new plots |  |  | without having to export the files to third-party software. |  | 18 | The system and the software should be capable |  |  | of performing following electrochemical measurements: |  | (a) | Cyclic Voltammetry |  | (b) | Linear sweep Voltammetry( LSV) |  | (c) | TAFEL plot |  | (d) | Chrono techniques |  | (e) | Voltammetry Techniques: Sampled DC Voltammetry , |  |  | Differential pulse and normal pulse Voltammetry |  | (f) | IR Compensation |  | (g) | Square Wave Voltammetry |  | (h) | Steps and Sweeps |  | 19 | Electro-Chemical Software data analysis features: |  | (a) | Kinetic and wave log analysis, IR compensation |  | (b) | CV fit and simulation, convolution and de-convolution, |  | (c) | Automatic and interactive peak search, |  | (d) | Linear , exponential and polynomial base line correction, |  | (e) | Linear regression, integration and differentiation, smoothing |  | (f) | FFT and Weighted moving average |  | (g) | Automatic polarization resistance determination using Tafel Plot |  | 01 No. |
| Item(s) | Description   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 1       | Compliance voltage  | ± 28 V at 2 A                           |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 2       | Current   | ± 2 A at 30 V                           |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 3       | Voltage range   | ± 10.0 V                                |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 4       | PGSTAT Gain Band width  | 1 MHz or more                           |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 5       | Bandwidth of electrometer   | > 4 MHz                                 |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 6       | Input impedance   | >1 T Ohm // 8pF                         |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 7       | Input Bias Current  | < 1 pA                                  |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 8       | Current Ranges  | 10nA to 1A in several ranges            |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 9       | Resolution at 10 nA range   | 30 fA                                   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 10      | System rise time  | < 250ns                                 |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 11      | Noise & Ripple  | < 25 µV rms referred to external signal |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 12      | Measured Potential resolution   | 0.3µV                                   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 13      | Frequency Range   | 10µHz to 1 MHz                          |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 14      | Applied Amplitude   | 0.5 mV to 1000 mV in two ranges         |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 15      | Input Range   | ± 5000mV                                |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 16      | Interface   | USB/RS232 or other interface for PC     |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 17      | System Software:  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | DATA PRESENTATION: It should be possible to display the recorded data points in a dedicated interface of the software.  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | It should have an advanced 2D and 3D graphics engine  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | It should have facility to display up to 4 plots simultaneously.  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | Comparison with previous experiments should be possible while experiments are in progress.  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | Plotting tools like individual axis scaling, multiple Y-axes, plot additions, zooming and overlays to help the user   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | display the relevant information in clear,  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | publication-ready graphs. It should be  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | possible to directly paste the data or  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | image file into a paper or a presentation.  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | ADVANCED DATA ANALYSIS: Software should   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | have a dedicated data analysis environment,   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | large number of data analysis tools and an  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | electrochemical spreadsheet to analyze the data,  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | perform calculation and create new plots  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | without having to export the files to third-party software.   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 18      | The system and the software should be capable   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | of performing following electrochemical measurements:   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (a)     | Cyclic Voltammetry  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (b)     | Linear sweep Voltammetry( LSV)  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (c)     | TAFEL plot  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (d)     | Chrono techniques   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (e)     | Voltammetry Techniques: Sampled DC Voltammetry ,  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
|         | Differential pulse and normal pulse Voltammetry   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (f)     | IR Compensation   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (g)     | Square Wave Voltammetry   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (h)     | Steps and Sweeps  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| 19      | Electro-Chemical Software data analysis features:   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (a)     | Kinetic and wave log analysis, IR compensation  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (b)     | CV fit and simulation, convolution and de-convolution,  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (c)     | Automatic and interactive peak search,  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (d)     | Linear , exponential and polynomial base line correction,   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (e)     | Linear regression, integration and differentiation, smoothing   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (f)     | FFT and Weighted moving average   |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |
| (g)     | Automatic polarization resistance determination using Tafel Plot  |   |             |   |                    |               |   |         |               |   |               |          |   |                        |               |   |                           |         |   |                 |                 |   |                    |        |   |                |                              |   |                           |       |    |                  |         |    |                |   |    |                               |       |    |                 |                |    |                   |                                 |    |             |          |    |           |                                     |    |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |   |  |    |   |  |  |   |  |     |                    |  |     |                                |  |     |            |  |     |                   |  |     |  |  |  |   |  |     |                 |  |     |                         |  |     |                  |  |    |   |  |     |  |  |     |  |  |     |  |  |     |   |  |     |   |  |     |                                 |  |     |  |  |        |

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|  | <p>(h) Transient time analysis for Chrono potentiometry, Chrono Amperometry and Chrono coulometric plots</p> <p>20 Electrochemical Impedance Spectroscopy Software User-friendly Windows based software for EIS measurements. It should have following features;</p> <p>(a) Frequency scan with Linear, Log or Square root distribution.</p> <p>(b) Single scan with different amplitudes for different range of frequencies</p> <p>(c) Single Sine or Multi-sine measurements</p> <p>(d) Data representation in different plot formats such as Impedance Scan, Admittance Scan</p> <p>(e) Bode Plot, Epsilon Plot, Mott Schottky Plot etc</p> <p>(e) Potential Current or Time Scans</p> <p>(f) Variety of data analysis tools such as Find Circle in Nyquist Plot</p> <p>(g) Equivalent Circuit Fitting with graphical representation of circuit elements, there should not be any limit on number of elements in the circuit. Also it should be possible to program the value and weightage of each of the element.</p> <p>(h) Possibility to use different elements such as: Resistance, Capacitance, Inductance, Constant Phase Element, Warburg Element, Gerischer impedance element for equivalent circuit description, fitting and simulation etc</p> <p>(i) Kramer &amp; Kronig Test to check the validity of measured data.</p> <p>21 Electrochemical Cell with glass cell of 40 ml Volume, suitable lid, purge tube. Stand rod, base plate and ring. 2 mm diameter Pt Disc working electrode, Ag/AgCl Reference Electrode, Pt wire counter electrode and GC Electrode. All Electrode minimum 2 qty should be quoted</p> <p>22 A suitable desk top computer PIV with 1GB RAM, 52 X CDD Combo Drive, 80 GB HDD, 17" Color Monitor, Optical Mouse, Keyboard</p> <p>(i) Optionally EQCM module:Compatible with quoted model and following Specification should be quoted:<br/> Oscillation Frequency: 6Mhz<br/> Resolution :0.07Hz<br/> Relative Accuracy :1Hz<br/> Sampling rate :50S/s<br/> Frequency range : 80,000Hz</p> <p>23 Price should be quoted in FCA/CIP basis.</p> |  |
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(TO BE SUBMITTED ALONG WITH TECHNICAL BID)

**TENDER NOTIFICATION NO:** -----

College Phone No:- 27296326

TENDER FORM

The Registrar,  
Delhi Technological University,  
Bawana Road,  
Delhi-110042

We the undersigned (herein after called as Contractor/Vendors/Suppliers) hereby offer to execute supply of items as per specification against which we have quoted over rates and for which this tender may be accepted at the rates stated there in and subject to the terms & conditions set forth for such items as may be ordered by the Registrar, Delhi Technological University or officer acting on his behalf.

**Date this \_\_\_\_\_ Day of \_\_\_\_\_**

**Signature of Contractor \_\_\_\_\_**

**Address \_\_\_\_\_**

\_\_\_\_\_

\_\_\_\_\_

1. Guidelines/Procedure to be followed in introduction of 'e'-procurement solution:

**1.Payment of cost of Tender documents:** The collection of cost of Tender documents is dispensed away with, as there is no physical supply of tender documents and also to have absolute anonymity of bidder participating in e-procurement solution. The bidders can view/download the tender documents from the : <https://govtprocurement.delhi.gov.in> .

**2.Submission of bids:** The bidders who are desirous of participating in 'e'- procurement shall submit their price bids in the standard formats prescribed in the Tender documents, displayed at : <https://govtprocurement.delhi.gov.in>. The bidder should upload the scanned copies of all the relevant certificates, documents etc. in the: <https://govtprocurement.delhi.gov.in>. in support of their price bids. The bidder shall sign on all the pages of tender document ,statements and certificates uploaded by him, owning responsibility for their correctness/authenticity and copies thereof may also be submitted in the office of the Asst. Registrar(S&P), DTU along with original EMD. However documents of the bidders downloaded online or requisitioned subsequently only will form the basis for deciding the tender.

**3.Payment of Bid Security (Earnest Money Deposit):** The EMD shall be in the form of the Demand Draft/Pay order of scheduled bank/Fixed Deposit Receipt of a scheduled bank issued in favour of **Registrar, Delhi Technological University, Delhi**. Zerox copy of the DD/PO/FDR is to be scanned and uploaded along with the bid, and the original DD/PO/FDR shall be sent to DTU so as to reach before the date and time of closing of the bids. Failure to furnish the original DD/PO/FDR before the closing of the bid, will entail rejection of bid and blacklisting.

**4.Price Bid Opening:** The Price Bids will be opened online by the concerned officer/officers at the specified date & time and the result will be displayed on the: <https://govtprocurement.delhi.gov.in>. which can be seen by all the bidders who participated in the tenders.

**5.Processing of Tenders:**The concerned officer/officers will evaluate and process the tenders as done in the conventional tenders and will communicate the decision to the bidder online.

**6.Payment of Performance Guarantee:** The successful tenderer shall furnish a bank guarantee/FDR of the value starting from 05% of the cost of the item for a period of sixty days beyond one year from a nationalized bank to ensure the satisfactory performance of item supplied. The performance guarantee is to be submitted at the time of installation / demonstration of equipments. In case the performance of the item is not found satisfactory, the amount of bank guarantee will be forfeited & credited in university account.

**7. Participation of Bidders at the time of opening of bids:** Bidders have two options to participate in tendering process at the time of opening of Bids:

(i). Bidders can come at the place of opening of bids (electronically) as done in the conventional tender process.

(ii). Bidders can visualize the process online.

**8.Participation Financial Rules for e-procurement:** The e-procurement system would be applicable for purchase of goods, outsourcing of services and execution of work as prescribed in GFRs.

ASSTT. REGISTRAR (S&P)  
DELHI TECHNOLOGICAL UNIVERSITY,  
SHAHBAD DAULATPUR, BAWANA ROAD,  
DELHI – 110 042

## TERMS AND CONDITIONS

### TENDER FORMS ARE NOT TRANSFERABLE

Procedure for submission of bids: The bidders who are desirous of participating in 'e'- procurement shall submit their technical and price bids in the standard formats prescribed in the Tender documents, displayed at : <https://govtprocurement.delhi.gov.in>. The bidder should upload the scanned copies of all the relevant certificates, documents etc. after page number all documents and tender document and prepare an index there of in the: <https://govtprocurement.delhi.gov.in>. in support of their price bids. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity and copies thereof may also be submitted in the office of the Asstt. Registrar (S&P), DTU alongwith original EMD.

1. The Competent Authority of the University does not bind himself to accept the lowest or any tender.
2. ALTERATION IN THE SPECIFICATION.
  - (i) The specifications mentioned/issued with this form of tender must not be altered by the Suppliers.
3. INCOMPLETE TENDERS

Tender will not be considered if complete information is not given at the time of tendering or if the particulars and data (if any) asked for are not given.
4. CANCELLATION OF TENDER/ CONTRACT/ IN PART OR IN FULL IN CASE OF DEFAULT IN CONTRACT/SUPPLY:

If the Supplier, in the opinion of the Institute fails or neglects to comply with any of the terms & conditions forming, part of the order issued, the head of institute shall without prejudice to any other right or remedies under the contract, has the right to cancel the contract /order by giving 15 days notice in writing to the Suppliers/firms without being liable to pay compensation for such cancellation.
5. Tender shall be uploaded as per guidelines indicated for e-procurement solution.
6. Demonstration/ sample of equipments has to be arranged by the suppliers, if desired by the institute. The technical committee may visit production facility of so desired.
7. **The quotation should be valid for a period of one year from the date of opening of the tender.**
8. Rates are to be quoted in INR (Rupee terms) only and any revision thereof is not allowed after the tenders have been opened.
9. The delivery period should be clearly mentioned against each item, incase, the items are not readily available, ex-stock offer will be preferred.
10. Rates should be quoted F.O.R Institution. Sales tax/VAT/Octroi, Custom duty and other taxes leviable, should be mentioned clearly indicating weather these are to be charged extra or included in the quoted price.
11. Consignment will not be insured at the Institute / University Cost.
12. Preference will be given to quotation pertaining to indigenous products, However, where suitable substitutes are not available and item need to be imported the following clarification / information should be given.
  - (i) Whether the item will be imported by the intended tenderers against its own import license or university will have to provide Custom Exemption Certificate (CDE).
  - (ii) Name and address of the foreign supplier.
  - (iii) Break up of CIF, and duty (if paid) should be given along with service charges if any.
  - (iv) Delivery period including information about mode of dispatch and possible duration (after dispatch) for receipt of item at the port.
  - (v) Whether the item required any special preparation for installation. In case yes, full details should be given regarding operation maintenance of the items.

- (vi) In case of costly/sophisticated items whether the tenderers will arrange any special training regarding operation / maintenance of the items.
  - (vii) Nature of assurance for the supply of spares after the warranty period.
13. The payment will be made within 30 days after the successful demonstration/installation of the equipment. Rejected items/goods should also be removed within 30 days after which no responsibility will be accepted by University.
  14. Conditional quotations and/or incomplete quotations in any respect will be rejected.
  15. In case you cannot quote for one or more of the items asked for in the tender the word "NOT QUOTED" (in the rate column) should be indicated.
  16. The specification of the item quoted by the firm should confirm to the University specification. Confirmation, in this respect should be specifically mentioned in the tender. Where the tenderer feels that the specification of the item not fully given or differ, from the specification of the item mentioned by the university, the exact specification of such item should be attached with the tender indicating the item quoted.
  17. The Firm is required to link the University specifications with catalogues & leaflets/literature for each item. Details features, for compliance of specification should be provided on specification sheet & appropriate reference i.e. page no. & para of literature, leaflet wherefrom the relevant information has been checked, should be indicated.
  20. **EARNEST MONEY:-** EMD should be attached with the technical bid. The EMD shall be in the form of the Demand Draft/Pay order of scheduled bank/Fixed Deposit Receipt of a scheduled bank issued in favour of **Registrar, Delhi Technological University, Delhi**. Zerox copy of the DD/PO/FDR is to be scanned and uploaded along with the bid, and the original DD/PO/FDR shall be sent to DTU so as to reach before the date of closing of the bids. Failure to furnish the original DD/PO/FDR before the closing of the bid, will entail rejection of bid and blacklisting. **If the tenderer after acceptance of the tender refused to take up the purchase order, his Earnest Money will be forfeited.** Any tender received without / less Earnest Money deposit shall be summarily rejected.
  21. The Competent Authority reserves the right to reject any or all the tenders without assigning any reason, at any stage, and his decision will be final.
  22. The supplies shall have to be made within the period specified in the purchase order failing which the order shall be cancelled and the Earnest Money will be forfeited. However, in exceptional circumstance and, on written request, from the supplier/tenderer, extension of date for supply of the material will be considered. Extension in supply period is at the sole discretion of the competent authority.
  23. Service manuals, wherever available/ required, should be provided along-with the Equipments.
  24. A WARRANTY certificate should invariably be supplied along with the item at the time of delivery. Non-Compliance of the same will result in non-acceptance of the item from the firm with whom the order was placed beside rejection of the tender.
  25. The Competent Authority reserves the right to levy liquidated damages up to 2% of the value of the order for delayed supply. If the supply is delayed beyond the extended period, the University reserves the right even to cancel the order and forfeit the EMD of the firm/ tenderer.
  26. **PERFORMANCE SECURITY DEPOSIT:-** The successful tenderer shall furnish a bank guarantee of the value starting from 05% of the cost of the item valid for a period of 60 days beyond one year from a nationalized bank to ensure the satisfactory performance of item supplied. The performance guarantee is to be submitted at the time of installation / demonstration of equipments. In case the performance of the item is not found satisfactory, the amount of bank guarantee will be credited in University account.
  27. **DEFAULT: -** In the event of default and unsatisfactory service of the contractor/Supplier firm, the DTU will be at liberty to repair/get the item serviced from other party at the cost of supplier/ contractor/ tenderer.
  28. In case of software items, the suppliers should ensure that:-
    - i. Legal software is supplied in original sealed pouches / P. K. T.

- ii. A license agreement is enclosed with it.
  - iii. A registration card is available for software.
29. **FAILURE AND TERMINATION:** - If the Contractor / Supplier fails to deliver the stores or any installment thereof within the period fixed for such delivery or at any time repudiates the contract before the expiry of such period, DTU may without prejudice to the right of the purchaser may recover damages for breach of the contract.
30. The technical & financial bids of only those bidders will be opened who fulfill the eligibility criteria and the required whose documents are found in order. If any of the date earmarked for opening of technical or financial bids happens to be holiday, the bids will be opened on the very next working day.
31. For any query/clarification in r/o technical aspect of the enquiry, HOD (Biotechnology), DTU may be contacted.
32. In case of dispute, Jurisdiction will be Delhi only.

ASST. REGISTRAR (S&P)  
DELHI TECHNOLOGICAL UNIVERSITY,  
SHAHBAD DAULATPUR, BAWANA ROAD,  
DELHI – 110 042

**Technical Bid and****CHECK LIST OF DOCUMENTS TO BE SENT WITH TECHNICAL BID.****(A) PROFILE**

|   |   |  |
|---|---|--|
| 1 | Name of the Tenderer<br>(In block letters)  |  |
| 2 | Status of the firm i.e Public Ltd/ Pvt. Ltd /Partnership firm or Proprietorship firm. |  |
| 3 | Name of the Director/Partner/Proprietor/ Authorized Signatory of the firm             |  |
| 4 | Complete address of the Firm with Phone No.   |  |

**(B) OTHER DETAILS**

| S No | Description   | Details  | PAGE NO. |
|------|---|--|----------|
| 1    | Tin/ VAT registration No.<br>(Issued by Trade & Tax Department, GNCTD.)   | Regn. No. _____<br>Copy of certificate attached<br>YES/NO                  |          |
| 2    | PAN number  | No. -----Yes/No  |          |
| 3    | Certificate having executed similar order/work of Govt. Offices/Public Sector Undertaking/ Edu. Institution                 | YES/NO   |          |
| 4    | EMD for Rs.-----  | DD/FDR No. _____<br>Date _____<br>Name of Bank & Branch<br>.....<br>YES/NO |          |
| 5    | Brochure/Leaflets/Technical Information of the item(s), if any  | Yes/No   |          |
| 6    | <b>All pages of Tender Document, duly signed.</b>   | Yes/No   |          |
| 7    | <b>Detailed Technical specifications, Terms &amp; Conditions and Delivery period to be submitted on firm's letter head.</b> | Yes/No   |          |

Attach copies of above documents duly signed by Tenderer.

All the facts as stated above are true to the best of my knowledge and belief. Further I have gone through the terms & conditions and agreed to abide by the same.

Signature of the tenderer or the  
Authorized Signatory with  
Seal of the firm/company.

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