**BHARATHIAR UNIVERSITY : COIMBATORE 641 046**

**TENDER NOTICE**

**Ref.No. C7 /Physics / TANSCHE -RGP / 328 / 2022 Date: 10.01.2022**

 Sealed Tenders are invited by the Registrar, Bharathiar University, Coimbatore 641 046 up to 3.00 P.M on **27.01.2022 in two bids (**Separate Technical and Commercial bid) from the reputed firms for the supply of **Cyclic Voltammetry with Impedance Analyzer for Nanoscale Level Monitoring of Electrochemical Process** **to the TANSCHE Project, Dept.of Physics**

|  |
| --- |
| **TENDER COST: Rs. 9,450/- EMD: Rs.35,000/-****LAST DATE FOR SUBMISSION OF TENDERS: 27.01.2022 up to 3.00 P.M.****TECHNICAL BIDS OPENING DATE : 27.01.2022 at 4.00 P.M.** |

 For tender documents can be downloaded from our website [www.b-u.ac.in](http://www.b-u.ac.in) from 11.01.2022 to 27.01.2022

 **REGISTRAR i/c**

 **BHARATHIAR UNIVERSITY**

 **BHARATHIAR UNIVERSITY –COIMBATORE 641 046**

**TENDER TERMS AND CONDITIONS**

* + 1. Sealed Tenders will be received by the **Registrar, Bharathiar University from the reputed firms** up to **3.00 p.m. on 27.01.2022**  in two bids (Technical & Commercial) for the **supply and installation of Cyclic Voltammetry with Impedance Analyzer for Nanoscale Level Monitoring of Electrochemical Process , TANSCHE-RGP , Dept.of Physics as specified in the schedule (Appendix ).**
		2. Tender should be addressed to the Registrar, Bharathiar University and should be only in sealed covers by Registered post/ or in person. Tenders received in ordinary covers without seal will not be considered.
		3. The tender cover with **Ref. No. should be superscribed as “Tender for the supply and installation of Cyclic Voltammetry with Impedance Analyzer for Nanoscale Level Monitoring of Electrochemical Process , TANSCHE-RGP , Dept.of Physics .Due on 27.01.2022. The** covers received without such superscription will be rejected summarily. All covers containing the tender should be sealed. Separate sealed covers should be used for technical and price bid and please be superscribed on the cover .
		4. **Technical Bids will be opened on 27.01.2022 at 4.00 p.m. by the Registrar or his/her nominee in the presence of the tenderers** or their representatives may be present at the time of opening. The representatives of the tendering firms who attends during opening of the tenders must produce their identification proof and authorization letter from the tendering firms

If the tenderers are unable to participate at the time of tender opening kindly be informed to the Registrar through mail **purchasesection4@gmail.com**

**Price bids will be opened after technical evaluation of bids which will be informed later.**

1. The tender shall be accompanied with the requisite Tender Cost of **Rs.9,450/- and EMD of Rs.35,000/-** in the form of DD drawn in one of the Nationalized Banks in the name of “Registrar, Bharathiar University” payable at Coimbatore. Bank Guarantees will not be accepted.
2. Tenders without EMD shall be summarily rejected. EMD will not carry any interest. If tenderers specifically exempted by the Government from the payment of earnest money deposit /tender cost necessary certificate (NSIC, SSI, NSIC) in respect of the item for which the registration certificate has been obtained .
3. **The University is not be responsible for any postal delay in receipt of tender. Delayed/Late bids will not be accepted at any circumstances. Any tender received after the due date will be returned to the tenderer**
4. The tender shall be valid for a **maximum period of 180 days** from the date of opening of the tender in acceptance. If the tender validity is less than **180 days** the tender will be rejected as non-responsive tender. Tenderer should not withdraw his tender after the tenders are opened. In case the tender is withdrawn after it opened, the EMD will be forfeited and black listed.
5. **Faxed bids will be rejected**.

**10) The initial examination shall consider the following factors, namely**:-

(a) Whether the tenderer meets the eligibility criteria laid down in the tender documents;

(b) Whether the tender documents each page have been duly signed;

 (c) Whether the requisite Earnest Money Deposit (EMD) with appropriate validity has been furnished;

(d) Whether the tender is substantially responsive to the technical specifications and commercial conditions set out in the tender documents.

e) Tenders which on initial examination are found not to be substantially responsive under any of the above clauses shall be rejected for further scrutiny.

**11). TECHNICAL BID –Evaluation - Eligibility Criteria**

 **The bidders must fulfil the following eligibility conditions and also submit the documentary evidence in support of fulfilling these conditions while submitting the technical bid**

1. The brief description of the equipment with make and model
2. A tenderer should be a manufacturer possessing a valid manufacturing license from the competent authority for manufacturing the items. (Documentary evidence to be furnished)
3. The manufacturer ‘s certificate .
4. Documentary evidence should be enclosed.
5. Authorized Dealer can also bid with authorization letter from the Principal Manufacturer of OEM for the proposed equipment who has supplied in India over the past three years. (Documentary evidence to be furnished).
6. **A manufacturer shall not authorize more than one dealer / distributor** for participating in this tender.
7. In case a tenderer is participating as an authorized Dealer/Distributor the

manufacturer of the item should satisfy the conditions mentioned at (b) and (c) above

1. The Copy of the GST Registration Certificate and Copy of PAN
2. The annual turnover of the bidder for the last three financial years
3. The tenderer submitting their offer must have supplied and installed of similar nature of the item most preferably orders received for previous two/three years from Govt department/ Institutions/ University/Govt undertaking/ organizations (documentary evidence to been closed)
4. The tenderer should not have been blacklisted or debarred from participating in tenders by any Central/State Government agencies or autonomous bodies or universities/ institutions. (An undertaking to this effect should be furnished)

**12) The** bidders who fulfil the eligibility criteria laid down will be considered for technical valuation. The price bid of the technically qualified bidders will be opened for negotiation

**13) PRICE BID :** Price shall be quoted as per the format given in Appendix-.

The tenderer shall not carry out any alteration in the format prescribed for Price Bid. The tenderer

shall not enclose any other document or statement that will influence the price. In such an event,

the tender inviting authority shall summarily reject the tender.

**Imported** :The tenderer shall quote the price in currency for CIP Chennai / **FOR Coimbatore** up to the destination and should be indicated clearly both in words and figures.

I**ndigenous**: the tenderer shall quote the basic price plus GST.. No separate charges for warranty period will be considered

Any scoring or overwriting in the price bid should be attested by the bidder with full signature. The rate quoted should be firm and should not be subject to any variation clauses.

University shall not pay any increase in duties, taxes and surcharges on account of any revision by the Govt after allotment /issue of work order / at the time of supply.

 **14) Price bid evaluation will be done for imported inclusive of the customs duty. For**

 **indigenous inclusive of GST.**

**15) THE EMD IS LIABLE TO BE FORFEITED :**

i) If the Tenderer withdraws his tender after the tenders are opened., the EMD will be forfeited and black listed.

ii) If the successful tenderer fails to furnish the required security deposit or the agreement, within the stipulated time limit

iii) The EMD of the unsuccessful tenders will be refunded immediately after the tenders are

disposed of by the competent authority.

**16) PERFORMANCE SECURITY :**

i. Successful tenderer has to furnish Security Deposit equivalent to **6.5%** of the ordered value in form of Demand Draft drawn in favour of “The Registrar” Bharathiar University payable at Coimbatore

ii. The EMD of the Successful Bidder will be adjusted towards Security Deposit (SD). (Security Deposit will be released only after the expiry of the warranty period .

**17)PAYMENT**

**Imported:** 100% payment will be made through irrevocable letter of credit in favour of the Principal Supplier (OR) Currency wire transfer after supply in favour of the Principal supplier. Advance payment is not applicable

**Indigenous**: The payment will be made only after supply and installation of the equipment either by Cheque or RTGs

 The commissioning and installation should be completed within the stipulated period mentioned in the supply order. If the supply is not made within the period, the supply order will be cancelled and the EMD & Security deposit will be forfeited.

**18) CUSTOMS DUTY & TAXES :**

 **Imported :**

 The equipment purchased is for Research and Development activities. University is registered with DSIR and exempted from customs duty for all research equipments as per the Government Notification No: 51/ 96 Customs Dt.23.7.1996.and Government Notification No.10/97 Central Excise Dt: 1.3.1997. If the equipment has Customs Duty as per Customs Tariff of India, the tenderer should mention HS Code for the said equipment.

 The University shall provide all the documents under this notification to enable the supplier to clear the goods whenever required after receipt of invoice, airway bill /shipping notice from the principal supplier .

 The customs clearance, transportation and delivery charges has to be borne by the supplier

 **Indigenous :**

 The GST and IGST will be paid as per Govt Notification No.45/2017 –Central Tax (Rate) & 47/2017-Integrated Tax(Rate) dated 14.11.2017 : NO. 9/2018-Central Tax(Rate), No.09/2018- Union Territory Tax (Rate) & No.10/2018 – Integrated Tax(Rate) dated 25.01.2018: and State Tax(Rate).

19) Any dispute arising out of this contract shall be settled only at the court having jurisdiction of

 Coimbatore.

20) The authority competent to accept the tender reserves the right to reject or accept any tender without assigning any reasons thereof.

21). Regarding the acceptance of supply with reference to the specification and quality of materials supplied, the decision of Registrar shall be final.

22 ) A**greement** :

 For the fulfilment of the order, Successful tenderer shall execute an agreement for the fulfilment of contract in Rs.100.00 Non judicial stamp paper of Tamil Nadu Government . If failed to execute the agreement, the EMD will be forfeited. The conditions stipulated in the form should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to be right of the University and to recover any consequential loss from the successful tenderer.

23). **Loss or Damage**: External damages or shortages that are prima facie the results of rough handling in transit or due to defective packing will be intimated within a fortnight from the date of receipt of the material, Internal defects, damages of any internal parts that cannot ordinary be exhibited on superficial inspection though due to bad handling in transit or defective packing will be intimated within two months from the date of receipt of the stores. In either case the damaged or defective stores will have to be taken back at supplier’s cost and risk.

24) **Guarantee**: The Supplier shall undertake to repair free of charge or replace any defective part of the equipment supplied due to defective or faulty design or bad workmanship during the warranty period from the date of installation of the equipment.

25) **Leaflets and Descriptive Literature**: Full descriptive particulars and manuals of the equipment offered should accompany the tender. Information regarding the country of manufacturer or origin of materials in the manufacture of articles should be furnished.

26) **Tests:** Manufacturer’s certificate for the routine tests specified in the BSS of the test issue or as per manufacturer’s standard practice should be forwarded in duplicate. The materials will be rejected, if the test results are not satisfactory.

27) **Penalty Clause**: The delivery should be guaranteed by you under the penalty clause mentioned hereunder:

 “Should delivery be delayed by strike, lockouts, fire accidents or any cause whatsoever, beyond the reasonable control of the contractor and whether such delay or impediment occurs before or after the time or extended time for dispatch or completion, a reasonable extension time shall be granted.

 If the contractor fails in due performance of this contract, within the time fixed by the contractor the extension thereof , the contractor is liable at discretion of the purchaser to a penalty of 4% per month of the contract value of such portion only of materials as cannot, in consequence of the delay, be used during each month between the appointed or extended time as the case may be and the actual time of acceptance, and such penalty shall be in full satisfaction of the contractor’s liability for the delay but shall no in any case exceed 25 % of the contract value of such portion of the materials.

28). If the successful tenderer failed to act up to the tender or backs out when his tender

 accepted, Security deposit will also be forfeited .

29) The material should be supplied strictly in accordance with the specifications given in the Appendix and should fulfil the successful tests carried out by the Competent Authority of the University. The supply and installation should be made as per the delivery schedule The guarantee period shall take effect from the date of installation. Successful tenderer shall be liable to change any defective part during the warranty period. In either case the damaged or defective items will have to be taken back at supplier’s cost and risk.

30) Training at University Campus at free of charge.

31) No communications from any tenderer adding to/adhering or explaining any terms of the tender will be considered prior to the submission or after opening of the tenders by the competent authority

32) **Amendment**

Tender Inviting Authority may amend the tender wherever it is felt that such an

amendment is absolutely necessary.

In case of any modifications in specifications/terms and conditions/ any clarifications to the bid document it will be uploaded in the website only and bidders are requested to verify the amendments before the submission of the tender provided no such change could be effected 48 hours prior to the time fixed for opening of the tender

 The tender shall be submitted subject to and agreeing the above terms and conditions duly

 attested and certified.

**TO BE FILLED IN BY THE TENDERER:**

|  |  |
| --- | --- |
| **Tender Cost** | **EMD** |
| **DD No /Date** | **Amount** | **DD No/Date** | **Amount** |
|  |  |  |  |

 **SIGNATURE OF THE TENDERER WITH SEAL**

 **APPENDIX**

**Cyclic Voltammetry with Impedance Analyzer for Nanoscale Level Monitoring of Electrochemical Process: Qty. req.1No.**

**Technical Specifications:**

Advanced Cyclic Voltammetry System with Electrochemical Scanning Probe Microscope for mapping the distribution of electro active species in the Electro Catalyst, Photo Catalyst, Corrosion and other material science research samples is required. The system should be supplied complete with tip drive system, electrochemistry measurement assembly, electrodes, software for three-dimension plots, approach curves, PC and cables. The instrument should have single expandable positioning platform capable of performing SECM. Importantly this should be upgradable to perform LEIS, SVET, SKP & SDC experiments.

**1. i. Stage Requirements:** The system should consist of CP controlled three motorized linear measuring stages. Travel distance of 100 mm x 100 mm x 100 mm (or better) along X, Y & Z axes with Piezo positioner and closed loop control X, Y, Z position must be provided

**ii. Resolution Requirements:** 50 nm or better with Piezo positioner with closed loop control must be provided. The system should include methods for constant distance, constant current mode and constant height mode SECM, Probe Approach Curves, TG-SC mode SG-TC mode

**iii. Modes of Operation:** The system should include AC-SECM mode for studies without electrochemical mediator. The software should include AC-scanning Electrochemical Microscopy Technique using AC-wave to measure the impedance, Phase, Current/Voltage response in a single experiment.

**iv. Potentiostat Requirements:** Apart from Bi-Pot Applications the Potentiostat’s should work independently & simultaneously for general Electrochemistry Applications. The necessary software package including Voltammetry, Corrosion Techniques should be included for both the Potentiostats.

**v. Software Requirements:** Single software platform for all scanning probe techniques with lifetime license should be provided. 3D software with Multiple User License for lifetime need to be provided. The software upgradation needs to be provided free of cost whenever available.

**vi. Table Mount Requirements:** Vibration-resistant optical base employing both a honey-comb internal design and stiff steel surfaces is needed.

**vii. Connectivity:** High speed USB or Ethernet connection between the positioning system and the computer is preferred.

**viii. Electrode:** Types of UME (Ultra Micro Electrode): Platinum UME’s 10µm and 25µm – 1Nos Each

**ix. Probes & Cell kits:** Compatible low volume cell system 5-10 mL, with necessary Reference & Counter Electrodes with standard test samples should be provided.

**2.** The following are the Bipotentiostat Specifications :

* Compliance Voltage: ±12V or higher
* Applied & Measured Potential range: ±10V or higher
* Applied & Measured Current Range: 5nA to ± 1A or Higher
* Applied Voltage Resolution: 350nV or better
* Current Resolution: 800fA or better
* Voltage & Current Accuracy ± 0.2% or better
* Potentiostat rise time: < 350ns
* Input impedance: ≥10 12 Ω or better
* Maximum scan rate: 2000V/s or better
* Electrometer bandwidth: ≥ 8 MHz or better

The system should be supplied with powerful fit and simulation software for the analysis of data.

**3. i. Potentiostat Software:**

The Software provided with the Potentiostat / Galvanostat should be comprehensive, fully windows based with three-dimensional view of graphics and analysis software. Software should record current, voltage and time for cyclic and linear sweep voltametric measurement. It should be possible to record current, voltage and time data in tabular format for each measuring point in the voltammogram. Software should be capable of supporting a wide variety of electrochemical techniques: Cyclic & Linear Sweep Voltammetry, Linear Polarization, Differential Pulse, Square Wave Voltammetry, Chrono amperometry, chrono potentiometry, chrono coulometry, Tafel, Potentiostatic/Potentiodynamic, Galvanostatic/galvanodynamic.

The Potentiostat/Galvanostat software should have facility to record additional signal viz, EQCM, Bipotentiostat etc. Import/export ASCII. It should have facility to display minimum 4 plots simultaneously. Comparison with previous experiments should be possible while experiments are in progress

**ii. Scanning Electrochemical Software:**

It should be possible to control the tip movement, scan speed, scan range. It should display the graphical representation of Approach curves, line scan and array scan.

**iii. Accessories & Cables:** Potentiostat cell cables minimum 1.5m Long and necessary interface cables & connectors should be provided. All Standard accessories required to conduct SECM Measurements should be included in the package

Complete with operational manuals, cables, cell kit, and dummy cell should be included in the package

Dedicated Laptop with i5 (64 bit) processor and 4GB RAM with 18” LED Monitor, 1 TB HDD, Win 10 should be provided.

**4. Warranty:** 2 Years from the date of Installation.

**Optional**

**Video camera add-on:** Vendor must provide an option that provides a Color CCD camera with LED/TFT Screen, macro-objective, manual zoom, and a corresponding stand, to view the movement of SECM tip on the substrate.

 **SIGNATURE OF THE TENDERER WITH SEAL**

**ANNEXURE – I**

**TECHNICAL BID**

**Tender reference No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Name and address of Bidder**
2. **The details of EMD**

**Amount of EMD Rs.\_\_\_\_\_\_\_\_\_\_\_, DD No. \_\_\_\_\_\_\_\_\_\_\_\_ dt**

**Bank:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Due Date of bid :**
2. **The bid shall remain valid for acceptance for 180 days, from the date of tender opening.**
3. **Schedule of Requirements:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sl.No | Brief description of stores | QtyRequired | QtyOffered | Delivery | Unitprice(Rs) | Total Cost(Rs) |
|  |  |  |  | At Bharathiar UniversityCoimbatore | To be filled in Annex:II |  |
| (i) | GST |  | % |  | - | - |  |  |
| (ii) | Warranty 2 years- |  |  |  |  |  |  |  |
| (ii) | Other charges, if any  | - | - |  |  |
| **Grand total cost in Rs.** |  |
| Total cost (in words) Rupees. |

**Note: (1) All columns must be filled up.**

 **(2) Adhering to the format given above is a pre- requisite for considering your bid.**

 **(3) Please indicate applicability.**

**I/certify that I/We have completely read and understood and agree to all the terms & conditions given in Part II.**

**Date : Signature of Bidder :**

**Office Stamp Signing as :**

 **Name in block letters :**

**:Mobile No. Fax No. e mail**

 **ANNEXURE: II**

**PRICE BID**

**Tender reference No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Name and address of Bidder**
2. **The details of EMD**

**Amount of EMD Rs.\_\_\_\_\_\_\_\_\_\_\_, DD No. \_\_\_\_\_\_\_\_\_\_\_\_ dt**

**Bank:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Due Date of bid :**
2. **The bid shall remain valid for acceptance for 180 days, from the date of tender opening.**
3. **Rates for items given in Techno-commercial offer at Schedule of requirements are as follows:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SlNo | Brief description of stores | Qty. Offered | Delivery | Unitprice | Total Cost |
|  |  |  | At Bharathiar UniversityCoimbatore |  |  |
| (i) | GST  |  | % |  | - | - |  |  |
| (ii) | Other charges, if any  | - | - |  |  |
| **Grand total**  |  |
| Total cost (in words) Rupees. |

**NOTE :(1) All columns must be filled up.**

 **(2) Adhering to the format given above is a pre- requisite for considering your bid.**

 **(3) Please indicate applicability.**

**Date : Signature of Bidder :**

**Office Stamp Signing as :**

 **Name in block letters :**

**Tele No. Fax No. e mail**

**LETTER OF ACCEPTANCE**

**To**

**THE REGISTRAR**

**BharathiarUniversity**

**Coimbatore – 641 046**

 **I/We agree to furnish required supplies /services as detailed in the Tender schedule or such portions thereof as you may specify in the Acceptance of Tender in accordance with the General Terms and Conditions governing the contract / supply order enclosed hereto duly accepted on receipt of the order for the same.**

 **I /We agree to hold this offer open until and shall be bound to supply / omission /erect the equipment and dispatch the same within the specified period.**

 **I/ We agree to supply and commission /erect the equipment and complete the whole of the work and hand over to the purchaser within the period of weeks. From the date of receipt of intimation from you regarding acceptance of this tender / receipt of supply order.**

**Signature of the bidder**

**With office stamp**

**Name & Address**

**Station**

**Date:**