**BHARATHIAR UNIVERSITY : COIMBATORE – 641 046**

**TENDER NOTICE**

**Ref. No. BU/RUSA 2.0/2022/R3-R6/BCTRC/Chemistry/539-11 Date: 21.01.2021**

Sealed Tenders are invited by the Registrar, Bharathiar University, Coimbatore 641 046 **upto 3.00 P.M on 24.02.2022 (Separate Technical bid and Commercial bid)** from the reputed ISO Certified Firms for the supply of **1No. of DSSC fabrication and characterization system with accessories** to the **Dept. of Chemistry** underRUSA 2.0 BCTRC Project**.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TENDER COST:-** | **Rs.9,450/-** | **EMD COST:-** | | **Rs.40,000/-** |
| **LAST DATE FOR SUBMISSION OF TENDERS** | | | **24.02.2022 up to 3.00P.M.** | |
| **TECHNICAL BIDS OPENING DATE** | | | **24.02.2022 at 4.00 P.M.** | |

The Tender documents and details of terms & conditions can be downloaded from our website [www.b-u.ac.in](http://www.b-u.ac.in) **from 21.01.2022 to 24.02.2022.**

**REGISTRAR i/c**

**BHARATHIAR UNIVERSITY**

**BHARATHIAR UNIVERSITY – COIMBATORE 641 046.**

**TENDER TERMS AND CONDITIONS FOR THE SUPPLY AND INSTALLATION OF 1No. of DSSC fabrication and characterization system with accessories** to the **Dept. of Chemistry** under **RUSA 2.0 BCTRC Project**

1. Sealed Tenders will be received by the **Registrar, Bharathiar University from the ISO Certified Firms** up to **3.00 p.m. on 24.02.2022**  in two bids (Technical & Commercial) for the **supply and installation of 1No. of DSSC fabrication and characterization system with accessories** to the **Dept. of Chemistry** under **RUSA 2.0 BCTRC Project as specified in the schedule.**
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 shall be submitted in a sealed cover with **Ref. No. and superscribed** as “Tender for the supply and installation of the **1No. of DSSC fabrication and characterization system with accessories** for the **Dept. of Chemistry**, under **RUSA2.0 BCTRC Project**. **Due on 24.02.2022** with the **tenderers full address and contact number (MOBILE Number).** **Separate sealed covers should be used for technical and price bid and please be superscribed on the cover**. The covers received without such superscription will be rejected summarily.
4. **Technical Bids will be opened on 24.02.2022 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 through mail** [**rusabharathiar@gmail.com**](mailto:rusabharathiar@gmail.com)

1. **Price bids will be opened after technical evaluation of bids which will be informed later.**
2. **Faxed Bids are liable to be rejected**
3. The tender shall be accompanied with the requisite **Tender Cost of Rs.9,450/- and EMD of Rs.40,000/-** in the form of **DD drawn in one of the Nationalized Banks** in the name of **“Registrar, Bharathiar University”** payable at Coimbatore. **Bank Guarantees or Cheques will not be accepted.**
4. 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 & MSME) in respect of the item for which the registration certificate has been obtained. Copy of the Registration Certificate alongwith the terms and conditions including validity time period should be enclosed and highlighted to considered the exemption. Offers submitted without proper Registration Certificate shall be rejected summarily.
5. The tenderer should meet the eligibility criteria laid down in the tender documents and the tender document should be duly signed in each page.

The tender should be substantially responsive to the technical specifications and commercial conditions set out in the tender documents.

1. Tenders which are found not to be substantially responsive under any of the above clauses shall be rejected for further scrutiny.
2. **The University is not 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.**
3. 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.
4. Tenderer should not withdraw his tender after the tenders are opened. In case the tender is withdrawn after it is opened, the EMD will be forfeited and black listed.
5. The EMD of the unsuccessful tenders will be refunded after the tenders are disposed off by the competent authority.
6. **The technical bids should fulfill the following conditions:**
7. The brief description of the equipment with make and model should be mentioned.
8. A tenderer should be a manufacturer possessing a valid manufacturing license from the competent authority for manufacturing the items. (Documentary evidence to be furnished)
9. Manufacturer (OEM) / Authorized Dealer / Distributor / Supplier can also bid with authorization letter from the manufacturer.
10. Manufacturer should not authorize more than one dealer / distributor for participating in the tender.
11. ISO Certificate
12. Company Profile
13. Copy of the GST Registration Certificate and PAN
14. Average turnover in the last 3years & IT Return.
15. CE certification or any other relevant certification must be enclosed
16. 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)
17. Thebidders who fulfil the eligibility criteria will be considered for technical evaluation. The price bid of the technically qualified bidders will be opened for negotiation.
18. **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 all Currencies 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, Packaging and Transportation. No separate charges for warranty period will be considered.

1. The rate should be quoted for item with specification and model if applicable and should be indicated clearly both words and figures. 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.
2. The rate should include excise duty, surcharge, sales tax, freight, insurance, delivery, installation and commissioning of the above work and such other levies that may be applicable. The bidder should clearly mentioned the details of their tax, customs and other charges, etc.
3. If the equipment is imported, Customs Duty, Clearance, delivery, transportation, Insurance charges should be mentioned clearly. The firm has to arrange the authorised customs clearing agent on behalf of University for customs clearance.
4. University shall not pay any increase in duties, taxes and surcharges on account of any revision by the Government at the time of supply and installation.
5. Supply shall be as per the specifications mentioned in the Appendix and accordingly at the time of supply.
6. The tender form (Annexure I & II) should be completed in all respects. Wherever the information is not relevant to your bid, the space should be appropriately filled with ‘NA or NIL’. No space shall be left blank. All pages of the tender documents should be enclosed otherwise the tenderers are likely to be rejected.
7. The commissioning and installation should be getting 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.
8. Successful tenderer has to remit the **Security Deposit 6.5%** to the order value in the form of **Demand Draft drawn in favour of “The Registrar” Bharathiar University** payable at Coimbatore. The EMD of the Successful Bidder will be adjusted towards Security Deposit (SD). Security Deposit will be refunded at the end of warranty period as per the purchase order subject to the satisfaction of the University.
9. A**greement**:- Successful tenderer shall execute an agreement for the fulfilment of contract in Rs.100.00 Non judicial stamp paper of Tamil Nadu Government or any State 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.
10. The materials are to be guaranteed for the warranty period mentioned as per the given specifications from the date of installation and commissioning against manufacturing defect and bad workmanship. The period of warranty and the Annual Maintenance Contract (AMC) are as per the given specifications and the specified period shall commence from the date of installation.
11. **PAYMENT**

**Imported:** 100% payment will be made through Irrevocable Letter of Credit (LC) in favour of the Principal Supplier, Foreign Demand Draft (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.

1. **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.

**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).

1. If the equipment has Customs Duty as per Customs Tariff of India, the tenderer should mention HSN Code for the said equipment.
2. The customs clearance, transportation and delivery charges has to be borne by the supplier. Local supplier shall arrange an authorized customs clearing agent on behalf of the University. The University shall provide all the necessary documents under this notification to enable the supplier to clear the goods whenever required after receipt of invoice, airway bill /shipping notice and packing list from the principal supplier.
3. No demurrage will be paid by the University for Customs clearing delay.
4. Any dispute arising out of this contract shall be settled only at the court having jurisdiction of Coimbatore.
5. The authority competent to accept the tender reserves the right to reject or accept any tender without assigning any reasons thereof.
6. Regarding the acceptance of supply with reference to the specification and quality of materials supplied, the decision of Registrar shall be final.
7. **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.
8. **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.
9. **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.
10. **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.
11. **Penalty Clause**: The delivery should be guaranteed by the tenderer under the penalty clause mentioned hereunder:

“When delivery is 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”.

1. 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.
2. The installation and training charges if any are to be borne by the firm.
3. Incomplete Tenders: Tenders without the complete particulars will not be considered.
4. 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.
5. **Amendment:**

Tender Inviting Authority may amend the tender wherever it is felt that such an amendment is absolutely necessary.

1. 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
2. The tender shall be submitted along with the downloaded tender documents subject to and agreeing the above conditions duly attested and certified.

**Place:-** **SIGNATURE OF THE TENDERER WITH SEAL**

**Date:-** **Name & Designation:-**

**Mobile No:-**

**SCHEDULE**

**Purchase of 1No. of Dye Sensitized Solar Cell (DSSC) Fabrication and Characterization System with Accessories**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name** | **Description** | **Quantity** |
| **I** | **GLASS CUTTER** |  | **1No** |
|  | Type | Glass Cutter |  |
|  | Glass Thickness | 1 – 4 mm |  |
|  | Maximum cutting size | 300 x 300 mm |  |
|  | Minimum cutting size | 25 x 25 mm |  |
|  | Accuracy | <± 0.1mm |  |
|  | Dimensions Approx. | (510 x 360 x 250)mm |  |
|  | Machine weight | 14 Kgs |  |
|  | Cutting wheel | 1 No. |  |
|  | Cutting mat | 1 No. |  |
|  | Polyurethane tube | 6 mm 3 meters |  |
|  | 2mm acrylic sheet | 1 No. |  |
| **II** | **SCREEN PRINTING SYSTEM** |  | **1 No.** |
|  | Maximum cell size | 50 x 50 mm |  |
|  | Swipe & Apply distance | Variable |  |
|  | Substrate holder | Vacuum based holder |  |
|  | Screen pattern | Customised |  |
|  | Substrate jigs | 25 x 25 mm & 50 x 50 mm |  |
|  | Power supply | 240 V AC 50/60 Hz |  |
| **III** | **FURNACE** |  | **1 No.** |
|  | Maximum substrate size | Maximum 50 x 50 mm |  |
|  | Maximum Temperature | 600o C |  |
|  | Interface | Digital touch screen |  |
|  | User control parameter | Temperature, Ramp andSoak |  |
|  | Maximum ramp & soaksteps | Six each step from ambienttemperature |  |
|  | External Dimensions | Approx. (700 x 470 x 300)mm |  |
|  | External Dimensions | Approx. (750 x 600 x 450)mm |  |
|  | Weight | Approximately 60 Kgs |  |
|  | Power Supply | 240 V AC 50/60 Hz |  |
| **IV** | **MULTI-PURPOSE ROBOT** |  | **1 No.** |
|  | User interface | 7-inch touch screen |  |
|  | Power supply | 220 V AC Single Phase |  |
|  | Substrate size Maximum | 50 x 50 mm |  |
|  | Maximum moving range | 50(X,Y) 50(Z) |  |
|  | Position accuracy | 50 μm |  |
|  | **Silver & UV Dispensing Head** |  |  |
|  | Dispensing method | Syringe with compressed Air |  |
|  | Cartridge size | 50 ml |  |
|  | **Hole Drilling Robot** |  |  |
|  | Hole making method bit / Tungsten Carbide | Diamond coated drill |  |
|  | Hole size | 1mm diameter |  |
|  | Moving axis | X,Z (FLIP TECHNOLOGY) |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Dye Coating Bath** |  |  |
|  | Liquid pumping | Nitrogen pumping to avoid contamination |  |
|  | Control parameters | Temperature control |  |
|  | **UV Curing Equipment** |  |  |
|  | Discharge lamps | LED Based |  |
|  | **Pick & Place System** |  |  |
|  | Positioning method | Automatic / Manual |  |
|  | Pickup method | Metal vacuum pads |  |
| **V** | **SOLAR SIMULATOR** |  | **1 No.** |
|  | Substrate size | Maximum 100 x 100 mm |  |
|  | LED control | 0 -100% |  |
|  | Lamp cooling | Forced air cooling |  |
|  | Output power | 100 mW/ cm2 |  |
|  | Interface | Digital touch screen |  |
|  | Humidity | Non condensing ≤ 85% |  |
|  | Power supply | 230 V AC Single Phase |  |
|  | Compliance voltage | ± 1.46 V |  |
|  | Maximum current | 15 mA |  |
|  | Voltage programming resolution | 50 μV |  |
|  | Voltage measurement resolution | 200 nV |  |
|  | Current resolution) | 2 fA (at max gain) |  |
|  | Current noise level | 200 fA |  |
|  | Input bias current | ± 3 fA |  |
|  | ADC measurement resolution | 24 bit |  |
|  | Sampling rate | Up to 30 kHz |  |
| **VI** | **Standard reference solar cell** |  | **1 No.** |
| The following materials should be provided along with the instrument   1. FTO Glass 300 x 300 mm x 3.2 mm10 ohm/Square – 10 Nos. 2. TiO2 Paste – 100 Grams 3. N719 Dye – 2 Grams 4. MPN Based Iodide/triiodide-100 ml 5. Ag Paste- 100 ml 6. UV Sealant -100 ml 7. Metal & Plastic Tips – 2 Pack. 8. Pt Paste – 50 grams 9. Syringe for electrolyte filling – 2 No. 10. Required furniture for the complete setup 11. For data handling (Computer) – 1 Nos. | | | |
| **Standard Warranty should be provided for 3 year. In addition, a comprehensive warranty for 3 year should be provided.** | | | |

**The instrument to be supplied at Bharathiar University, Coimbatoreand the transport charges andclearance to be borne by the supplier. The supplier has to carry out the installation in the universitypremises where the equipment has been placed.**

**ANNEXURE - I**

**BHARATHAIR UNIVERSITY : COIMBATORE – 46**

**TECHNICAL BID**

Tender reference No :-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Name and address of Bidder
2. TENDER Cost :- Rs. \_\_\_\_\_\_\_\_\_\_, DD No. \_\_\_\_\_\_\_\_\_\_, dt.

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 | | | | Qty  Required | Qty  Offered | Delivery | Unit  price  (Rs) | Total Cost  (Rs) |
|  |  | | | |  |  | At Bharathiar University  Coimbatore | To be filled in Annex:II | To be filled in Annex:II |
| (i) | GST |  | % |  | | - | - |  |  |
| (ii) | Warranty:- | **3 Years Comprehensive Warranty** | | | |  |  |  |  |
| (iii) | 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 :-

Tele No. Fax No. e mail:-

**ANNEXURE: II**

**BHARATHAIR UNIVERSITY : COIMBATORE – 46**

**PRICE BID**

Tender reference No :- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Name and address of Bidder
2. TENDER Cost :- Rs. \_\_\_\_\_\_\_\_\_\_, DD No. \_\_\_\_\_\_\_\_\_\_, dt.

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:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.  No | Brief description of stores | | | | Qty  Offered | Delivery | Unit  price  (Rs) | Total Cost  (Rs) |
|  |  | | | |  | At Bharathiar University  Coimbatore |  |  |
| (i) | GST |  | % |  | - | - |  |  |
| (ii) | Other charges, if any | | | | - | - |  |  |
| Grand total cost in Rs. | | | | | | |  | |
| Total cost (in words) Rupees. | | | | | | | | |

**Note:-**

1. **All columns must be filled up.**
2. **The base price of the product and the GST rate should be mentioned separately. DSIR will be provided for the concessional rate of 5% along with the purchase order, since our university is an educational institution.**
3. **Adhering to the format given above is a pre- requisite for considering your bid.**
4. **Please indicate applicability.**

Date:- Signature of Bidder :-

Office Stamp Signing as :-

Name in block letters :-

Tele No. Fax No. e mail:-

**BHARATHIAR UNIVERSITY : COIMBATORE – 46**

**LETTER OF ACCEPTANCE**

Tender No.

Date :

To

THE REGISTRAR

Bharathiar University

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 despatch 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 :-