



INDIAN INSTITUTE OF TECHNOLOGY MADRAS
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Prof. Satyanarayanan Seshadri
Project Coordinator

Ref: APM1819152MUAYSATN/001
Dated: 14.01.2020

Limited Tender No: APM1819152MUAYSATN/001

Due Date: 04.02.2020, 3:30pm

Pre-Bid meeting: - Not required.

Bid opening meeting on Due Date: 04.02.2020, 4:30pm

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of “**Single Channel Electrochemical Workstation**” conforming to the specifications given in (Annexure-I).

Terms and Conditions of Limited Tender

- 1. Preparation of Bids:** - The Limited tenders should be submitted under **one bid system** (i.e.) Technical-cum-Financial bid.
- 2. Delivery of the tender:** - The tender shall be sent to the below-mentioned addresses either by post or by courier (duly sealed and super scribed on the envelope with the reference No and due date) so as to reach the following address before the due date and time specified in our Schedule:
Prof. Satyanarayanan Seshadri,
Department of Applied Mechanics
IIT Madras
Chennai - 600 036.
- 3. Price:** - The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges to **Department of Applied Mechanics**.
 - a. The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties should be clearly indicated separately. IIT Madras is eligible for concessional GST and relevant certificate will be issued.
 - b. In case of import supply, the price should be quoted without custom duty. IIT Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty (not exceeding 5%) and the price should be quoted on EX-WORKS and CIP (stating the Cost, Insurance, Freight separately) and indicating the mode of shipment.
- 4. Terms of Delivery:** - The item should be supplied to our Departments as per Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed as specified in our important conditions.
- 5. Catalogue:** Original catalogue (not any photocopy) of the quoted model duly signed must accompany the quotation in the Technical-cum-financial bid
- 6. Late offer:** - The offers received after the due date and time will not be considered

7. **Payment:** - No Advance payment will be made for Indigenous purchase. However, 90% Payment against Delivery and 10% after installation are agreed to wherever the installation is involved. In case of import supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done).
8. **Advance Payment:** - No advance payment is generally admissible. In case of specific percentage of advance payment is required, the Foreign Vendor has to submit a Bank Guarantee equal to the amount of advance payment and it should be routed through the Beneficiary Bank to the end user Bank. Otherwise, the Indian Agent of the foreign vendor has to submit a Bank Guarantee through a Nationalized Bank of India.
9. **On-site Installation:** - The equipment or machinery has to be installed or commissioned by the successful bidder within number of days (as prescribed by PI's) from the date of receipt of the item at site of IIT Madras.
10. **Warranty/Guarantee:** - The offer should clearly specify the warranty or guarantee period for the machinery/equipment.
11. **Validity:** Validity of Quotation not less than 90 days from the due date of tender
12. **Bid Opening:** The bid will be opened on **04.02.2020, 4:30pm** at the Department of Applied Mechanics, IIT Madras.
13. **Accept /Reject:** IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.
14. **Settlement of Disputes:** Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.
15. **Risk Purchase Clause:** - In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.
16. **Unsolicited offers:** "This notice is being published **for information only** and is not an open invitation to quote in this limited tender. Participation in this tender is by invitation only and is limited to the selected registered suppliers. Unsolicited offers are liable to be ignored. However, suppliers who desire to participate in such tenders in future may apply for registration as per procedure." The Website for Registration of vendors is <http://web.iitm.ac.in/supplier/> and the mail address for queries is "workflow@rt.iitm.ac.in".

Yours sincerely,

Prof. Satyanarayanan Seshadri,
Department of Applied Mechanics
IIT Madras
Chennai - 600 036.

TECHNICAL SPECIFICATION FOR SINGLE CHANNEL ELECTROCHEMICAL WORK STATION

Scope of supply:

The system should perform cyclic voltammetry (CV), linear sweep voltammetry (LSV), staircase voltammetry, stripping voltammetry, differential pulse voltammetry (DPV), square wave voltammetry (SWV), chronoamperometry, chronopotentiometry, impedance studies and charge/discharge experiments at constant potential, constant power and constant current.

General Specifications for SINLE CHANNEL ELECTROCHEMICAL WORKSTATION:

The system should have single channel connection with power supply and impedance analyser. It should also have all necessary wirings. The system should be able to supply and withdraw a maximum current of 5A at maximum voltage of +/- 20V. The system should be upgradable based on future requirements. It should have a warranty of atleast 5 years.

Quantity Required:

Single-channel electrochemical workstation. - **1 No**

Technical Specifications:

Specifications for Electrochemical Workstation

Compliance Voltage: +/- 20 V or more

Applied voltage: +/-15V or more

Maximum current: ±5A

Voltage & Current accuracy: 0.1% or better

Current range: minimum 5 ranges should be Scan rate: 100V/Sec or better

Impedance Frequency range: 10 µHz to 5 MHz or better

Amplitude: 10 micro V to 5 Volt or better

Software requirements:

- Corrosion: Potentiostatic/Gavanostatic –Gavano dynamic, Tafel, LPR
- Software package for automated corrosion analysis, Galvanic coupling / coupled corrosion technique, Pitting corrosion
- Voltammetry techniques- CV, LSV, Staircase Voltammetry
- Pulse: DPV, SWV, Stripping voltammetry, Chrono amperometry, Chronopotentiometry
- Energy: charge/discharge Constant potential, GITT, PITT, Constant current, constant power
- Impedance Spectroscopy software
- EIS circuit fitting facility and software

Life time up gradation of the software should be free.

Warranty - _Atleast 5 years