

भारतीय प्रौद्योगिकी संस्थान धारवाड़

Indian Institute of Technology dhArwAD

Permanent Campus, ChikkamalligawAD dhArwAD 580 011, KarnATaka

FOR THE "Supply Installation and Commissioning of Electrochemical Workstation" AT INDIAN INSTITUTE OF TECHNOLOGY DHARWAD

NOTICE INVITING QUOTATIONS FOR LOCAL PURCHASE

1.	LPC No.		IITDH/P1B/MMD/LPC/MMAE/2025-26/ 591			
2.	Description		FOR THE "Supply Installation and Commissioning of Electrochemical Workstation" AT INDIAN INSTITUTE OF TECHNOLOGY DHARWAD.			
3.	Specifications		Annexure Attached			
4.	Quantity		One (1)			
5.	Procurement (Category	OH-35, Scientific Research Equipment			
6.	Procurement 7		Local Purchase			
7.	Submission of Quotation: by email to lpc@iitdh.ac.in					
			d as "Quotation for IITDH/P1B/MMD/LPC/MMAE/2025-26/591"			
	Cover No.	Cover Type	Description			
8.	1	Technical Document	Compliances of specification with detailed catalogue/ brochure, MAF, Warranty Declaration, Bidders Information, Delivery Period etc.			
	2	Financial Document	Separate financial quote with password protection to be submitted (Annexure III) (If participant is technically qualified an official email will be sent requesting the password)			
9.	Form of Contra	act	Buy/Supply			
10.	Quotation valid	dity (days):	30 Days			
11.	Period of Work/Delivery Period (Days)		Delivery period of materials 60 days from the date of PO			
12.	Payment Terms		Within 30 days (Ref Terms of Payment Section II of page no.3)			
13.	Delivery Location		Room Number 211 (2nd floor), Academic Block 1, IIT Dharwad Permanent Campus, ChikkamalligawAD, Dharwad-580011, Karnataka, India.			
14.	Pin Code		580011			
15.	Quotation Inviting Authority:		Assistant Registrar (MMD), IIT Dharwad Address: IIT Dharwad Permanent Campus, ChikkamalligawAD, Dharwad-580011, Karnataka, India			



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<u>Section – I: Instructions to participants</u>

- Indian Institute of Technology Dharwad invites Quotations for the item as mentioned in SI.
 No. 2 of page 1 of this document and as per the Technical Specifications given in Section III of this document.
- 2. The participant should note that the technical specifications mentioned in Section III form the core of the product. The offers must strictly be as per the specifications given. At the same time, it must be kept in mind that mere copying of our specifications in the Quotation shall not make the Quotation eligible for consideration. A Quotation has to be supported with the original catalogue of the quoted item(s), duly signed by the authorized person participating. Non-compliance with the above shall be treated as incomplete/ambiguous, and the quote may be ignored without giving an opportunity to the participant for further clarification/negotiation, etc.
- 3. The participant shall ensure that the quote submitted by him includes **all accessories (as per annexures)** for full execution of the contract. The participant shall not charge extra for additional items required to meet the **operational requirement** at the stage of **installation and commissioning**.
- 4. Quotations can be submitted through **Email/Speed post/Courier/by Hand**.
- 5. The participant must submit all documents required for evaluation of the technocommercial Quotation, duly signed and sealed by the competent authority of the firm. In the event of non-receipt of any of the required documents, the participant may be disqualified from the process. The Quotation or any paper related to the Quotation will not be accepted after the given deadline or the last date published on the webpage of Local Purchase listings. Further, any separate correspondence in this matter shall not be entertained.
- 6. During evaluation of the quote, the committee will scrutinize the documents mentioned above and may forward any or all the documents to the concerned authorities for verification and authentication. In case any document(s) as submitted by the participant is found/reported to be fake, the participant will be out of the evaluation process and suitable legal action may be initiated against the participant.
- Besides, scrutinizing the documents submitted with the quote, the participant may be interviewed by the Committee to assess the eligibility, capability, and suitability of the participant.
- 8. The above-mentioned basic eligibility conditions and additional clauses are broad guidelines for pre-qualification, and the Director, IIT Dharwad, hereby reserves the right to relax/alter/modify/add any or all the conditions.

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<u>Section - II: General Conditions of Contract</u>

Evaluation of Quotation:

- a) Techno-Commercial Quotation will be evaluated for suitability as per documentary validation, eligibility criteria, and technical specifications laid out in this document. The Quotations found suitable will be recommended by the Committee and, after approval of the competent authority, shall be deemed as technically suitable offers.
- b) In case any participant is silent on any clauses mentioned in this document, IIT Dharwad shall construe that the participant has accepted the clauses of this document, and no further claim will be entertained.
- c) No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of the Quotation.
- d) Any OEM (or their authorized resellers) from a country that shares a land border with India will be eligible to participate in this document only if the OEM is registered with the Competent Authority in compliance with the Dept. of Expenditure, Ministry of Finance OM No. F.No.6/18/2019-PPD dated 23/07/2020, as amended from time to time.

Corrupt & Fraudulent Practices:

IIT Dharwad requires that participants, suppliers, contractors, and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the terms set forth below are defined as follows:

- a) "Corrupt practice "means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of in kind/value to influence the action of a public official in the procurement process or in contract execution.
- b) "Fraudulent practice" means a misrepresentation or omission of facts to influence a procurement process or the execution of a contract.
- c) "Collusive practice" means a scheme or arrangement between two or more participants, designed to establish QUOTATION prices at artificial, non-competitive levels; and
- d) "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
- e) IIT Dharwad will reject a proposal for award if it determines that the participant recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract in question.

Training and pre-installation checks:

- The participant shall also submit training proposal for the operation and maintenance to the personnel of IIT Dharwad on the offered equipment/machinery.
- b) Wherever needed, our technical personnel should be trained by the supplier at the project site free of cost.
- c) The participant shall mention the pre-installation requirements for the equipment, like ambient temperature, humidity, civil work, weather specifications, power specifications, etc. When all items are provided, full performance satisfaction should be demonstrated to IIT Dharwad.



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Terms of Payment: (For Indigenous Supplies):

Payment within 30 days from the date of delivery, installation, commissioning, demonstration, training, testing and receipt of Acceptance Certificate of concerned Department/Section/Materials Management Division, IIT Dharwad. Payment shall be made by electronic fund transfer or such other mode offered by the Bank. IIT Dharwad does not pay any advance payment to the party. Any request for Advance payment will be summarily rejected.

Transfer and Subletting:

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IIT DHARWAD

The seller shall not sublet, transfer, assign, or otherwise part with the acceptance to the contract or any part thereof, either directly or indirectly, without the prior written permission of the Purchaser.

Delivery terms (only DDP, IIT DHARWAD mode of shipment acceptable):

Items should be delivered to the specified location in the permanent campus of IIT Dharwad, Karnataka, India – 580011, free of cost. The supplier should arrange for the entire process from the origin of equipment to the Stores at IIT Dharwad (including charges for safe packing, Marking & labelling, loading charges, road/air freight, insurance of goods, unloading charges, transport & unloading at buyer destination, installation, commissioning, demonstration and training; within the quoted price).

Freight & Insurance:

No freight and insurance charges will be provided, and the materials are to be delivered at IIT Dharwad Permanent Campus, IIT Dharwad at the cost and risk of the supplier within the quoted price as per the delivery terms mentioned in the above paragraphs.

Warranty Condition:

- a) The supplier must give a **comprehensive on-site support and maintenance** for a period specified as a part of the specifications in respect of the subject item (mentioned in Section III) from the date of commissioning and acceptance of the items.
- b) The warranty provided shall be comprehensive, meaning it must include the cost of the spares, materials, manpower, and any other incidental expenses thereto.
- c) Any deviation in the equipment and the specification from the accepted terms and conditions may lead to rejection and non-acceptance of stores. In such case, the participant/manufacturer is required to supply all the items in the specified form to the satisfaction/ specifications mentioned in the order and demonstrate at their own cost. The payments shall be made only after receiving the materials as per the required specification and quality to the satisfaction of the competent authority of IIT Dharwad.

Installation & Demonstration:

- a) The supplier is required to carry out the supply, installation, commissioning & demonstration of the subject item at the permanent campus of IIT Dharwad installation site within the delivery period; otherwise, the penalty clause will be the same as per the supply of material (refer to the liquidated damages below).
- b) In case of any mishandling/damage to items and supplies during carriage from the origin of items to the installation site, the supplier has to replace it with new items/supplies



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immediately at their own risk and cost. The supplier will settle his claim with the insurance company at their convenience. IIT Dharwad will not be liable for any type of losses in any form.

- c) Supplier shall be responsible for installation/demonstration wherever applicable and for after-sales service during the warranty period and thereafter as mentioned in the contract.
- d) Installation demonstration to be arranged by the supplier within the quoted price, and the same is to be done within 15 days of the arrival of the equipment at the site or whenever informed by IIT Dharwad.

Liquidated Damages:

The equipment should be delivered/dispatched to destination and ready for use not later than the delivery period specified. If the supplier fails to deliver any or all the stores or perform the service by the specified date, liquidated damages @0.5% per week or part thereof in respect of the value of the delayed stores will be deducted from the bill, subject to a maximum of 10% value. The same terms are applicable for the installation, training, and demonstration clause mentioned above.

Dispute and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to the whole process of this procurement shall be settled in the court of competent jurisdiction in the district of Dharwad, Karnataka.

Cancellation of Notice Inviting Quotation:

- a) Notwithstanding anything specified in this document, the **Purchaser/IIT Dharwad**, at its sole discretion, unconditionally and without assigning any reasons, reserves the rights:
 - 1. To accept or reject the lowest Quotation or any other Quotation or all the Quotations.
 - 2. To accept any Quotation in full or in part.
 - 3. To reject any Quotation or offer not confirming to the terms mentioned in this document
 - 4. To cancel the Notice Inviting Quotation at any stage during the evaluation and before the award of work.
- b) Offers which deviate from the **vital conditions** (as illustrated below) of the Quotation shall be rejected:
 - 1. Non-submission of complete offers as mentioned in this document.
 - 2. Receipt of offers after the due date and time and/or by email/fax (unless specified otherwise).
 - 3. Receipt of offers in open condition.
 - 4. Conditional Quotations and unsigned Quotations will also be rejected. The Supplier shall not be liable for imposition of liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of





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Force Majeure.

- a) For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- b) If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

Supervision of Commissioning:

The supplier shall depute concerned specialists for the supervision of the commissioning of the machine to be carried out. The Supplier shall make necessary arrangement at their own expenses for stay, transport and other expenses of their specialist during their stay in Dharwad which also includes imparting free of cost training to IIT Dharwad personnel.

The Institute Reserves the Right to:

- a) Increase or decrease the quantity of the item(s) as per requirement.
- b) Reject the QUOTATION in absence of not furnishing the documentary evidence in respect of GST and Income Tax clearance certificates together with the performance of supplies in various branches/institutions.
- c) Reject the QUOTATION in the event of non-furnishing the authentic documentary evidence in respect of Testing reports / Performance report of the concerned Govt. Organization / Institutions about the products being manufactured and marketed. The performance test of the product can be conducted at Institute level also for which charge will have to be borne by the suppliers.
- d) Reject the supplies already made, if not found up to the mark. Thorough checking may be adopted to test the correctness of the supply. In such an event further, action may call to conform or discard the supply.

Performance Guarantee (as per GFR 2017 Rule 171):

- a) Suppliers shall furnish 5% of the contract value as a performance security for a period of 02 months beyond the expiry of all warranty and maintenance contract related obligations within 15 days of acceptance of the Purchase Order.
- b) Performance Security may be furnished in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from a Commercial bank, Bank Guarantee from a Commercial bank or online payment in an acceptable form, safeguarding the purchaser's interest in all respects as per GFR 2017, Rule 171, and as amended from time to time

LOSS OR DAMAGE:

If goods supplied are found defective either in material or workmanship or do not conform to the specifications or unsuitable for the purpose for which they are meant for, the seller has to replace the required goods at free of cost. However, IIT Dharwad reserves right to reject the goods and repudiate.



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Table-1

SI. No.	Terms and Conditions	IIT Dharwad Procurement requirements	Response by vender M/s
1.	Unconditional acceptance to all the Terms and conditions set out herein	Declaration to be provided	
2.	Price QUOTATION Format	As per Annexure-III (on the Firm's Letterhead)	
3.	Price QUOTATION Currency	INR	
4.	Delivery terms	Ref Delivery terms Section II of page no.4	
5.	GST Rate (If Local supply in India)	@ Applicable rates	
6.	Warranty	Submit a declaration in this regard (as per Annexure-I)	
7.	Blacklisting status	Submit a declaration in this regard (as per Annexure-II)	



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Section - III Complete Schedule of Requirements and Compliance

This section has following compliance requirements:			
i	Compliance for technical specifications of the equipment to be supplied		

<u>Table of compliance for technical specifications of the equipment to be supplied (to be filled by participant).</u>

Electrochemical workstation- Qty 1

		Annexure
	Technical specifications of Electrochemical worksta	
Specification Category	Parameters & Detailed Specifications	Specifications of the quoted product
Main System	PC Communication: USB 2.0 High Speed	
	• Line Voltage: 100–240 VAC, 50/60 Hz, 1A	
	Power Adapter: 24V, 2A (60W)	
	Maximum Output Power: 15 W	
System	Cell Cable: 1-meter shielded (Working, Reference,	
Features	Counter, Working Sense, AuxV)	
	Control: DSP with FPGA	
	Calibration: Automatic	
	Data Acquisition:	
	 2 × 16-bit ADC (500 kHz) for voltage & 	
	current	
	○ 1 × 16-bit ADC (250 kHz) for auxiliary voltage	
	& temperature	
	• DAC:	
	○ 2 × 16-bit DAC (50 MHz) for bias & scan	
	○ 1 × 16-bit DAC (1 MHz) for analog output	
	• Filters: 5 Hz, 1 kHz, 200 kHz, 5 MHz	
	Scan Rate:	
	o Standard: 0–200 V/s	
	∘ Fast Scan: 0–5000 V/s	
	Internal Memory: 542,000 data points	
	LCD Display: Automatic selection for DC & EIS modes	
Power	• Power: 12 W (12V, 1A)	
Amplifier (CE)	Compliance Voltage: ±12 V	
	Maximum Current: ±1 A	
	Control Speed: 4 options	
	Bandwidth: 2 MHz	
	• Slew Rate: 10 V/μs	
Potentiostat	Voltage Control	
Mode	Control Voltage Ranges: ±10V, ±1V, ±100 mV	
(Voltage	Resolution: 16 bit	
Control)	Accuracy: ±0.02% F.S (gain ×1)	
	Maximum Scan Range: ±10 V vs reference	



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	Current Measurement	
	Current Ranges: 9 auto/manual ranges (10 nA to 1 A)	
	Resolution:	
	o 10 nA (with gain)	
	o Down to 3 pA (300 fA with gain)	
	Accuracy: ±0.05% F.S (gain ×1)	
Galvanostat	Current Control	
Mode	• Range: ±1A	
(Current	• Resolution: 16 bit	
Control)	Current Ranges: same as potentiostatic (down to pA	
	levels)	
	• Accuracy: ±0.05% F.S	
	Voltage Measurement	
	Voltage Ranges: ±10V, ±1V, ±100 mV	
	• Resolution: 0.3 mV, 30 μV, 3 μV	
	Accuracy: ±0.02% F.S	
Electrometer	Maximum Input Voltage: ±10 V	
	• Input Impedance: 2×10 ¹³ Ω 4.5 pF	
	Bandwidth: > 22 MHz	
-10 (1)	• CMRR: > 114 dB	
EIS (Internal	• Frequency Range: 10 µHz to 1 MHz	
FRA)	• Frequency Accuracy: 0.01%	
for system	Frequency Resolution: 5000/decade	
	AC Amplitude:	
	o Potentiostatic: 0.1 mV to 5 V rms	
	Galvanostatic: 0.1% to 70% full scale	
	Available Modes:	
	Static EIS: Potentiostatic, Galvanostatic, Pseudo-	
	galvanostatic, OCP	
	Dynamic EIS: Potentiodynamic, Galvanodynamic	
	Fixed frequency impedance: Potentiostatic,	
	Galvanostatic, Potentiodynamic, Galvanodynamic	
1.1.5.	Multisine EIS : Potentiodynamic, Galvanodynamic	
Interfaces for	Auxiliary Voltage Input: ±10 V analog input	
system	Zero Resistance Ammeter: 100 nA – 1 A	
0.5	Peripheral Communication: I ² C	
Software	Max Steps per Experiment: 1000 Control Object Control Obj	
	Safety Shutdown Limits: Voltage, Current, Power,	
	AuxV	
	• Max Sampling Rate: 2–3 μs	
	Sampling Conditions: Time, dV/dt, dI/dt	
	PC Requirement	
	Windows 7 or higher	
	Dummy Cell	
	One external dummy cell included	





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Software Techniques

Basic Techniques

- Potentiostatic
- Galvanostatic
- Double Step Potentiostatic / Galvanostatic
- OCP Measurement
- Potential Sweep
- Current Sweep
- Cyclic Voltammetry
- Fast Potential Sweep
- Potentiostatic & Galvanostatic Ru Measurement

Electrochemical Analysis (EASe)

- CA, CC, CP
- LSV, SDV
- Fast CV, Fast LSV
- Pulsed Techniques: DPV, SWV, DPA, NPV, RNPV, DNPV

Energy Package (BATe)

- CC/CV tests for Li-ion
- CC/CC for NiCd/NiMH
- Discharge tests
- EVS
- Variable Scan Rate CV
- IV curves (potentiostatic/galvanostatic)
- Steady state CV
- GITT, PITT

EIS Package (EISe)

- PEIS, GEIS, Pseudo-GEIS
- OCP EIS
- Potentiodynamic & Galvanodynamic EIS
- HFR modes (pot/galv)
- Multisine modes
- Intermittent PEIS/GEIS

Note:

- a. All the accessories required for the measurement should be provided along with the instrument.
- b. Required data logging support through software to the instrument for analysis has to be included.
- c. Warranty and service: Minimum 1 year on complete system.
- d. Delivery 6 to 8 weeks working days from the date of receipt of confirmed purchase order.
- e. The manual shall clearly outline the following precautions, dos and don'ts and standard operating instructions to ensure safety.

In addition to above specification the vendor has to provide catalogue/ brochure/ manuals and necessary technical documents in respect to the line item.



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I/We M/s all the above specifications.	hereby declare and certify that we comply with
	Authorized Signatory with Seal



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Annexure I

DECLARATION OF COMPREHENSIVE WARRANTY AND MAINTENANCE VISITS

I/We M/s	hereby declare that items to be supplied
against this participant shall be covered as comprehensive	e warranty as given in the specifications
document with scheduled maintenance visit on call basis/re	gular basis/quarterly basis. This warranty
shall cover defects in materials, workmanship, and perfor	rmance for a period of (as
mentioned in specification Section III) from the date of accept	otance/installation.
Date: (Authorised sig	gnature & seal of the participant)



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Annexure-II

UNDERTAKING REGARDING BLACKLISTING / NON-DEBARMENT

Date:	(Authorised signature & seal of the participant)
Dharwad immediately.	
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Any change in the above status during the	e evaluation of the present quote shall be intimated to IIT
submission.	
active debarment from Ministry of Finance a	and/or Ministry of Education as on the date of QUOTATION
We hereby confirm and declare that we, M	M/s, is/are not under any



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(Annexure-III)

Price QUOTATION

SI. No	Description of Item & Specification	Qty	SAC Code	Total QUOTATION Price* (in INR & DDP Basis)
1.	Supply Installation and Commissioning of Electrochemical Workstation	01(One)		
2.	Discount offered (if any), on base price quoted			
3.	Sub-Total			
4	IGST / CGST / SGST@ applicable Rates			
5.	GRAND TOTAL QUOTATION PRICE			

Authorised Signatory and seal