

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

NIT No. : IACS/ CAM / NP / 2017-18 /13

Date: 19 / 05 / 2017

Sealed tender in two bids system (technical bid and price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for a **Two-Channel Electrochemical Workstation**.

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelop, that should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Completed tender bids should reach the office of the **Registrar, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** on or before the scheduled date and time specified below:

Tender Notice No.	NIT No. IACS/ CAM / NP/ 2017-18 /13	Date:19-5-17
Last date and time of submitting tender	22/06/17, 12 noon	
Pre-bid meeting(date, time & place) to discuss technical specification	12/06/17, 4:00 PM (Room no 123A, IACS)	
Date and time of opening tender	22/06/17 3:00 PM	
Place of opening tender	Room no 123A, IACS	
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.	
Contact	Email: camnp@iacs.res.in Tel.+91 33 2473 4971 [Ext 1733]	

The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly super scribed as 'TECHNICAL BID' on the outer cover of the envelop as already detailed above. It should be clearly mentioned on the envelope as "Technical Specification for Two-channel Electrochemical Work Station".

Technical Specification for Two-channel Electrochemical Work Station

- Two independent channels and ability to use the channels independently and simultaneously and also in bi-potential static mode of operation.
- Working current limit 2 channels should be ± 1 nA to ± 500 mA.
- Compliance voltage should be ± 12 V (or better)
- Applied voltage resolution: 10 micro volt
- One channel should have impedance capability in the frequency range of 10 μ Hz- 5 MHz or more, with AC amplitude of 0.5 mV to 2 V, acquisition speed of 7,00,000 samples/second or more, bandwidth of electrometer: 7 MHz or better.
- All channels should support floating facility and usable in 2,3,4 and 5 electrode configurations.
- Recording of additional 1 analog voltage input from external sensors with necessary cables

Software provided should be capable of the following :-

- Voltammetry software including Cyclic voltammetry , chronoamperometry , Chronopotentiometry, AC voltammetry
- Complete battery /Super capacitor testing software with analysis for Charge / discharge cycle controlled with voltage / current / time / power / resistance.
- EIS measurement with GITT, PITT techniques and analysis
- Recording of additional analogue voltage input from external sensors.
- External devices like thermal chambers / controlled atmosphere chambers controlled / synchronised software.
- Pulse software including DPV, NPV, RNPV, SWV etc.
- Corrosion application such as Linear Polarization , Generalized Corrosion , Tafel, Critical Pitting Temperature
- Energy device testing and analysis tool to calculate efficiency and fill factor
- Impedance Spectroscopy software including PEIS, GEIS, mottschottsky with single sine and Multisine techniques are required. Equivalent fitting circuit software with licensed version.
- Facility to test stack and cell parameters simultaneously

PC with appropriate specification would be supplied locally. This should not be included in the tender.

RRDE Specifications:

- Cell vial volume should 100 mL or more
- Spin coating adapter
- Nipple for purge valve
- Rotational range: 100-5,000 rpm
- Setting resolution: 1 rpm
- Accuracy: 0.1% or better

Accessories

- RDE Glassy carbon disc electrode
- RRDE platinum ring electrode
- Gold working electrode
- Glassy carbon working electrode
- Platinum working electrode
- Ag/AgCl reference electrode
- Platinum wire counter electrode
- Electrode Polishing kit

- Hg/HgO reference electrode
 - Calomel reference electrode
- For above items, kindly quote for unit price.

Warranty: Minimum 1 year; but 3 years extendable is preferred.

Servicing facility within India is a must while service engineer stationed at Kolkata will be preferred.

A list of other places where the instrument has been installed should also be provided.

A compliance table (see below) must be prepared and submitted along with the technical bid.

A compliance table (see below) must be prepared and submitted along with the technical bid.

Sr. No	Tender specification	Your offered instrument specification	Extent of compliance

2. PRICE BID

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as 'PRICE BID' on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

PRICE: Price to be quoted on CIF Kolkata and also FOB basis.

3. BID SECURITY:

a. An Account payee Demand Draft/Pay Order of Nationalized Bank for Rs. 50,000 (Rupees Fifty Thousand only) drawn in favour of "Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)" is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). Alternatively, the Bidder shall have the option to furnish the EMD in the format of Bank Guarantee (BG).

b. The Demand Draft for the Bid-Security should have at least about 90 (ninety) days validity period of opening of the bids.

c. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

4. PERFORMANCE SECURITY:

An Account Payee Demand Draft on any nationalized bank of India of 10% of the order value in the name of "Indian Association for the Cultivation of Science" is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

5. TERMS OF PAYMENT:

Payment will be made through irrevocable Letter of Credit in two installments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

6. GENERAL INSTRUCTIONS :

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.
2. The tender should accompany a compliance chart.
3. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
4. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally visit the website (www.iacs.res.in/tender) for any amendment.
5. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
6. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers who are responsible for after sales support. Response time should be within 24 hrs.
7. The model number, make and a printed literature of the product should be submitted positively.
8. Proposed delivery schedule should be mentioned clearly.
9. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
11. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
12. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
13. In case of any dispute, the decision of IACS authority shall be final and bidding on the bidders.
14. For any clarification regarding technical specifications, information etc., please send your queries to Narayan Pradhan (camnp@iacs.res.in).
15. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar