

Notice Inviting Global Tender for

**Supply, Installation, Commissioning & Training of a  
Ion Chromatography System**

**Tender No. CEaS/2024-25/SM/01**

**Last Date of submission 10<sup>th</sup> September 2024**



**Centre of Earth Science**

**Indian Institute of Science, Bangalore – 560012**

**Exempted from GTE as per Department of Expenditure, Ministry of  
Finance, GoI, issued OMs No. F.4/1/2023-PPD, Dated 28. 06. 2024**

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## SECTION 1 – BID SCHEDULE

1	Tender No	CEaS/2024-25/SM/01
2	Tender Date	20/08/2024
3	Item Description	Ion Chromatography System
4	Tender Type	Two Bid System <b>a)</b> Technical Bid (Part-A) <b>b)</b> Commercial Bid (Part-B)
5	Place of Submission and tender opening	To, Dr. Sambuddha Misra Centre for Earth Sciences, Indian Institute of Science, Indian Institute of Science Bangalore- 560012, India Email: <a href="mailto:sambuddha@iisc.ac.in">sambuddha@iisc.ac.in</a>
6	Last Date & Time for submission of tender	<b>10/09/2024, 17:00 hrs</b>
7	For further clarifications	Dr. Soumita Boral Interdisciplinary Centre for Water Research, Indian Institute of Science Bangalore- 560012, India Email: <a href="mailto:soumitab@iisc.ac.in">soumitab@iisc.ac.in</a>

## **SECTION 2 – ELIGIBILITY CRITERIA**

Prequalification criteria:

- 1.** The Bidder's firm should have existence for a minimum of 5 years. (Enclose Company Registration Certificate)
- 2.** The Bidder should have qualified technical service personnel for the instrument based in India.
- 3.** If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach an authorization certificate along with the bid from the original equipment manufacturer.
- 4.** The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4
- 5.** The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect must be given as per Annexure 3.

## SECTION 3 – TERMS AND CONDITIONS

### A) Submission of Tender:

1. All documentations in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid system).
  - a. Technical Bid (Part-A) –  
Technical bid consisting of all technical details, check list for conformance to specifications, format in which the price bid is quoted without the actual prices (suppliers who include any indication of prices in the technical bid will be automatically disqualified).
  - b. Commercial Bid (Part-B) –  
Indicating item wise price for the items mentioned in the technical bid, as per the format of quotation provided in tender, and other commercial terms and conditions.
3. The technical bid and price bid should each be placed in a sealed cover, superscripting on both the envelopes the tender no. and the due date and both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No & Due Date.
4. The SEALED COVER superscripting tender number, & due date should reach  
Dr. Sambuddha Misra  
Centre for Earth Sciences,  
Indian Institute of Science, Bangalore – 560012, India, on or before due date mentioned in the tender notice. In case the due date happens to be a holiday the tender will be accepted and opened on the next working day.

IF THE QUOTATION COVER IS NOT SEALED, IT WILL BE REJECTED.

5. All communications are to be addressed to- Dr. Sambuddha Misra, Centre for Earth Sciences, Indian Institute of Science, Bangalore – 560012, India.
6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
7. If price is not quoted in Commercial Bid as provided in tender document the bid is liable to be rejected.
8. The Institute reserves the right to accept or reject any bid and to annul the

bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.

9. Incomplete bids will be summarily rejected.

**B) Cancellation of Tender:**

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

**C) Validity of the Offer:**

The offer shall be valid 180 days from the date of opening of the commercial bid.

**D) Evaluation of Offer:**

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision regarding acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of the contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
  - a. Non-submission of complete offers.
  - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
  - c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER has accepted the clauses as of the tender and no further claim will be entertained.
7. No revision of the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories for installation, operation, pre-processing and post processing, optional items, recommended spares, warranty,

annual maintenance contract

**E) Pre-requisites:**

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

**F) Mode of Shipment:**

In case of foreign bidders, the consignment must be airlifted, insured and transported to the Indian Institute of Science. Necessary custom clearance from Bangalore International Airport will be facilitated by IISc, Bangalore.

**G) Customs clearance:**

The IISc, Bangalore will furnish the necessary papers for the import of items into India, necessary custom duty exemption certificate and other supporting documents to facilitate the import of the items will be provided.

**H) Warranty:**

The complete system is to be under warranty / comprehensive maintenance package for minimum 3 years / 36 calendar months (year wise breakup value should be shown in the commercial bid) including free supply of consumables, spare parts and data analysis software from the date of functional installation. If the instrument is found to be defective, it must be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

**I) Annual Maintenance Contract:**

An annual maintenance contract for a period of 5 years post warranty should be provided on completion of warranty period.

**J) Purchase Order:**

1. The order will be placed with the bidder whose bid is accepted by IISc - based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

**K) Delivery and Installation:**

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed and made functional within 90 days from the date of receipt of the purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by IISc,

Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed.

**L) Payment Terms:**

The payment will be through a Letter of Credit and the milestones of the payment will be determined after mutual discussions with the successful bidder.

**M) Statutory Variation:**

Any statutory increase in the taxes and duties subsequent to the bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

**N) Disputes and Jurisdiction:**

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 Bangalore, India.

**O) General Requirements:**

1. A breakdown of costings for all items should be included in the specifications.
2. Details of third-party components included within the specifications which the Institute could purchase directly from manufacturers (e.g. computer hardware, software and peripherals, vacuum system components) should be mentioned separately.
3. Details of warranty provisions.
4. Details and costings of spares kit.
5. Details of maintenance arrangements/agreements.
6. Details of service engineer's call out charges (per day).

**P) General:**

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension of the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.



5. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

## SECTION – 4 – TECHNICAL SPECIFICATIONS

### Ion Chromatography System - Quantity 1

This specification outlines the basic requirements for the ion chromatography system. The system must operate isocratically with the option to upgrade to ternary gradient capabilities, including an electrolytic eluent generation mechanism for analyzing a wide range of anions, such as chloride ( $\text{Cl}^-$ ), fluoride ( $\text{F}^-$ ), bromide ( $\text{Br}^-$ ), nitrite ( $\text{NO}_2^-$ ), nitrate ( $\text{NO}_3^-$ ), phosphate ( $\text{PO}_4^{2-}$ ), sulphate ( $\text{SO}_4^{2-}$ ), bromate ( $\text{BrO}_3^-$ ), perchlorate ( $\text{ClO}_4^-$ ), chlorate ( $\text{ClO}_3^-$ ), organic acids, selenium species, polyphosphate, and others, at both ppm and ppb levels. The system should be controlled via a PC-based software that manages data acquisition and system operations, with automatic detection of pumps, detectors, and autosampler. Additionally, the ion chromatographic system should be capable of upgrades, such as adding a column oven, gradient functionality, and other detectors like UV-Vis.

**The system must include components that adhere to the following technical specifications:**

#### **1) Solvent Delivery Pump:**

- i. The flow paths should be of PEEK material and inert withstanding the entire pH range 0-14. It should be 100% reverse phase HPLC solvent compatible. The pump should be isocratic, dual piston type (with inert check valves) and reciprocating microprocessor controlled. Pump specifications:

Flow range	0.01 ml /min to 5.00 ml/min or better.
Pressure pulsation	<1%
Resolution of flow rate	0.01 mL or more
Flow Accuracy	<0.2%
Operating pressure	0-4500 psi or more

- ii. Must have inert, non-metallic PEEK (polyetheretherketone) fluidic components throughout the system to ensure solvent compatibility and metal contamination free chromatography.
- iii. Pump must be capable of running 2 mm and 4 mm i.d. columns without modification of the pump heads.
- iv. Must allow for user-selectable high- and low-pressure limits to automatically stop the pump in the event of leaks, flow restrictions, flow blockages etc. Eluent monitoring facility must be available.

- v. Injector: 1 number, 6-Port injector valve with fast response time and controlled through software.

**2. Chemical Suppressor -**

- i. Suppression devices must be available for Anion with membrane base hardware membrane or packed bed type with high loading and high back-pressure tolerance (at least 350 psi) with continuous regeneration.
- ii. Suppressor regeneration must be carried out by external chemical regeneration with integrated regenerant pump. Suppressor device must be able to suppress hydroxide eluents as required for EPA, ASTM, ISO, or other standardized methods. The suppressor should be 100% solvent compatible. Must provide warranty for atleast 5 years with mentioned warranty on the manufacturers certificate.

**3. Conductivity detector:** One number of conductivity detector for analysis of anion, should be microprocessor digital signal processor based, with following specifications:

Full-Scale Output Ranges	0-15000 $\mu$ S/cm or more
Resolution	0.005 nS/cm or better
Temperature range	20 to 50 $^{\circ}$ C
Cell Volume	<1 $\mu$ L
Electronic noise	< 0.1nS/cm at 1uS/cm level

**4. Ion exchange columns** should be able to separate high and low concentration analytes in single injection. Anion column and its guard column to compatible for high strength eluent with capacity.

**5. Data Processor:**

- i. A PC based data acquisition & processing system along with complete system control should be offered. The necessary software should be fully Windows based. The software should be able to control the system. PC hardware should be of latest generation.
- ii. The software must be able to provide fully automatic control of the process of analyzing samples. This must include acquiring data, quantitation, producing a report, and the option to upgrade to an incorporated excel like spreadsheet for report flexibility.
- iii. The software must be able to automate integration updates without time consuming batch reprocessing of changes to integration in a data set. The software must have the ability to customize the report format and content. It should have virtual IC column library for future method development purpose.
- iv. Future hyphenation for speciation's with ICP, ICP- MS should be available with same IC software.

**6. Autosampler:** Automated sample for loading of samples having a capacity of minimum 30 vials. A minimum of 250 numbers of vial should be quoted with the system.

- i. Must utilize non-metallic fluid path components to reduce potential sources of contamination, eliminate corrosion, and be acid and base resistant.
- ii. All autosamplers vials should be in closed cover of sampler to avoid environmental and light, dust effect.

**7. Other details:**

- i. The IC system must meet the requirements of EPA Method 300.1 Part A and Part B.
- ii. Require accessories tubing, ferrule certified calibrated standard to perform system installation qualification must provide along with instrument.

## **SECTION –4B: ACCESSORIES AND SPARES**

The offer should include all the required accessories/ spares/ consumables for seamless performance of the system and its peripherals. A list of spares and consumables should be provided and quoted in Indian rupees.

## **SECTION 4C: ADDITIONAL GENERAL REQUIREMENTS**

- a List of all installations in India with contact details of scientist / individual in-charge.
- b The technical specifications listed above are a minimum indicative. The ease of operation and maintenance, the ability to integrate latest technology, and after sales service facilities are some of the key factors in the evaluation process.
- c The details, credentials, and experience of individuals who are factory trained service engineers of the quoted model of ion chromatography system and is currently on roll in India or at the nearest service hub should be submitted with the offered quotation.
- d Quotation should include all cost including logistics required to complete the installation at IISc.
- e The Vendor should certify and confirm availability of spares, service support and, both hardware and software upgradation for at least 10 years from the year of installation.
- f Any equipment of component procured locally and supplied with the instrument should be quoted in Indian Rupees.
- g List of select user laboratories of an instrument of similar configuration and scientific application must be provided with the contact details (e-mail) of the person-in-charge of the instrument, model and date of installation.
- h IISc may opt for demonstration of any technical specifications and performance of the quoted model, at any available user site in India or at the factory / preferred demonstration site for the company, as a part of technical evaluation.

## **SECTION 4D: TRAINING**

After the successful installation of the ion chromatography system and its peripherals, selected personnel from IISc should be provided with hands-on and in-depth training on the operation, maintenance and application of the instrument by factory engineer atleast for five days.

## **SECTION 4E: WARRANTY (TO BE QUOTED AS A SEPARATE ITEM)**

Supplier should provide comprehensive onsite warranty (including parts and labour) for a minimum of 3 years (36 months), including all locally supplied items after successful installation of the system. The supplier should also quote for annual service maintenance contract (breakdown visits and two preventative service visits) for the next five years after the warranty period.

#### **SECTION 4F: PRE-INSTALLATION AND INSTALLATION GUIDELINE**

A comprehensive guideline/list of requirements for site preparation, and pre- installation infrastructure with their specifications is to be provided by the manufacturer. The complete installation of the supplied instrument system should be carried out by the factory engineer. All the expenses including travel, accommodation etc. towards this should be included in the quote.

It is the responsibility of the vendor to ensure that all the required accessories and ancillary items are included in the quotation for carrying out the installation, standardization, optimization and calibration of the instrument. The supplied system should be complete in all respect to take up the sample analysis at the IISc premises.

## Bidding Format:

Sr. No.	Technical Compliance Statement for Ion Chromatography System	Complied/ Not Complied	Extra Features
	<p><b><u>PLEASE QUOTE THE SPECIFICATIONS IN THE ORDER OUTLINED IN THIS DOCUMENT ABOVE.</u></b></p> <p><b><u>A COMPLIANCE STATEMENT MUST BE SUBMITTED IN AN ITEM-WISE FASHION AND DEMONSTRATING THE COMPLIANCE / DEVIATIONS IN CLEAR TERMS.</u></b></p> <p><b><u>Hard and soft copies of the quote MUST be inserted along the documents.</u></b></p>		

## **SECTION 5: TECHNICAL BID**

The technical bid should include all requirements of the tender along with all annexures, and should be submitted to:

To,

Dr. Sambuddha Misra

Centre for Earth Sciences, Indian Institute of Science,

Bangalore – 560012, India



### **Annexure-1: Details of the Bidder**

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

<b>SI No</b>	<b>Name of the Bidder</b>	
<b>1</b>	<b>Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)</b>	
<b>2</b>	<b>Registration No/ Trade License, (attach attested copy)</b>	
<b>3</b>	<b>Registered Office Address</b>	
<b>4</b>	<b>Address for communication</b>	
<b>5</b>	<b>Contact person- Name and Designation</b>	
<b>6</b>	<b>Telephone No</b>	
<b>7</b>	<b>Email ID</b>	
	<b>Website</b>	
<b>8</b>	<b>PAN No. (attach copy)</b>	
<b>9</b>	<b>GST No. (attach copy)</b>	

Signature of the Bidder

Name  
Designation, Seal

Date:

## **ANNEXURE-2: DECLARATION REGARDING EXPERIENCE**

To,

Dr. Sambuddha Misra

Centre for Earth Sciences, Indian Institute of Science,

Bangalore – 560012, India

Ref: Tender No:

**Dated:**

**Subject: Supply, installation, and training of Ion Chromatography System at CEaS, IISc**

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ---- years of experience in supplying and installing Ion Chromatography system.

(Signature of the Bidder)

Printed Name

Designation, Seal

Date:

### ANNEXURE-3: DECLARATION REGARDING TRACK RECORD

To,  
Dr. Sambuddha Misra  
Centre for Earth Sciences, Indian Institute of Science,  
Bangalore – 560012, India

Ref: Tender No:

Dated:

**Subject: Supply, installation, and training of Ion Chromatography System at CEaS, IISc**

Sir,

I've carefully gone through the Terms & Conditions contained in the above tender (Ref: Tender No. xxxx). I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following

Sl.No.	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long
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(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding the period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully

(Signature of the Bidder)

Name

Designation, Seal

Date:

## **ANNEXURE – 4: DECLARATION FOR ACCEPTANCE OF TERMS AND CONDITIONS**

To,

Dr. Sambuddha Misra

Centre for Earth Sciences, Indian Institute of Science,

Bangalore – 560012, India

Ref: Tender No:

Dated:

**Subject: Supply, installation, and training of Ion Chromatography System at CEaS, IISc**

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above-referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name

Designation, Seal

Date:

### ANNEXURE – 5: DETAILS OF ITEMS QUOTED

<b>Company Name</b>	
<b>Product Name</b>	
<b>Part / Catalogue number</b>	
<b>Product description / main features</b>	
<b>Detailed technical specifications</b>	
<b>Remarks</b>	

Instructions to bidders:

- 1.** Bidder should provide technical specifications of the quoted product(s) in detail.
- 2.** Bidder should attach product brochures along with technical bid.
- 3.** Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

## SECTION 6: COMMERCIAL BID

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

SI No	Description	Catalogue Number	Quantity	Unit Price	Sub Total
1	Instrument price				
2	Accessories for operation and installation				
3	All Consumables, spares and software to be supplied locally				
4	Warranty (min 5 years)				
5	Cost of Insurance and Airfreight				
6	CIP/CIF IISc, Bengaluru				

SI No	Description	Quantity	Unit Price	GS T	Total

Addressed to:

To,

Dr. Sambuddha Misra

Centre for Earth Sciences, Indian Institute of Science,

Bangalore – 560012, India

## SECTION 7 – CHECK LIST

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

### 1. Envelope “A”: Technical Bid

Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:

Annexure 1: Bidders details

Annexure 2: Declaration regarding experience

Annexure 3: Declaration regarding clean track record

Annexure 4: Declaration for acceptance of terms and conditions

Annexure 5: Details of items quoted

Copy of this tender document duly signed by the authorized signatory on every page and sealed.

### 2. Envelop “B”: Commercial Bid

Section 6: Commercial Bid

The quotations must be submitted in two separate sealed envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No. & Due Date.

Thanking you,

Dr. Soumita Boral  
Interdisciplinary Centre for Water Research  
Indian Institute of Science,  
Bangalore – 560012, India