



Central University of Punjab

Date: 10/10/2025

CORRIGENDUM 1

The following amendment are incorporated in GeM BID No.: GEM/2025/B/6674393 Dated 12/09/2025 for procurement of IRMS with Elemental Analyzer & Liquid Chromatography System.

1. Amended specifications of the equipment is attached as **Annexure -1**
2. The other specifications of the equipment are remain same
3. The bid and date has been extended to 20-10-2025
4. All other terms and conditions of the above referred to GeM bid remains unchanged.



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ANNEXURE-1

उपकरण का नाम / Name of Equipment : IRMS with Elemental Analyzer & Liquid Chromatography

S.N.	Revised Technical Specification	Read as
1	Isotope ratio mass spectrometer	
	1.1 The IRMS should feature an accelerating voltage of $\geq 5,000$ volts or above, must exhibit highly sensitive and excellent linearity.	
	1.2 Absolute sensitivity of CO₂ should be equal to or better than 1100 molecules/ion in continuous flow mode.	Absolute sensitivity of CO ₂ should be equal to or less than 1200 molecules/ion in continuous flow mode.
	1.3 The instrument should have a mass range of 2 to 96 AMU at the full range of accelerating voltage with an electromagnetic analyzer for the separation of masses.	
	1.4 Mass resolution of 110 or better at 10% valley definition.	
	1.5 Dynamic range (amplifier) 50 Volts or above	
	1.6 IRMS should have at least universal triple collector or higher array along with collector for Hydrogen measurement; the collector array should measure isotopic ratios of H, C, N, O and S.	
	1.7 Source Linearity must be better than 0.02 %/nA for CO ₂ .	
	1.8 For hydrogen measurements, H ³⁺ correction should be less than 8 ppm/nA.	
	1.9 The system should be capable of achieving vacuum levels of 5.0×10^{-7} mbar or better without the need of bakeout.	
	1.10 Below internal precision 1 σ (‰) in continuous flow mode should be guaranteed:	
	$\delta^{13}\text{C}$ (CO ₂): ≤ 0.06	
	$\delta^{18}\text{O}$ (CO ₂): ≤ 0.06	
	$\delta^{15}\text{N}$ (N ₂): ≤ 0.06	
	$\delta^{34}\text{S}$ (SO ₂): ≤ 0.10	
	$\delta^{18}\text{O}$ (CO): ≤ 0.10	
	δD (H ₂): ≤ 0.20	
	1.11 Below isotope ratio linearity in continuous flow mode should be guaranteed:	
	$\delta^{13}\text{C}$ (CO ₂): ≤ 0.02	
	$\delta^{18}\text{O}$ (CO ₂): ≤ 0.04	
	$\delta^{15}\text{N}$ (N ₂): ≤ 0.02	
	$\delta^{34}\text{S}$ (SO ₂): ≤ 0.04	



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	$\delta^{18}\text{O}(\text{CO}): \leq 0.04$	
	1.12 IRMS should, without any upgradation, be capable of accommodating EA, LC and a carbonate analysis device in continuous flow mode.	
	1.13 The IRMS, along with its data acquisition and peripheral devices, should be managed through a computer system with user-friendly software to ensure seamless and efficient user control.	
	1.14 Suitable PC for operation and data analysis of IRMS must be quoted with the configuration: Processor- 13th Generation Intel® Core™ i7-13700 (30 MB cache, 16 cores, 24 threads, 2.10 GHz to 5.10 GHz turbo, 65 W) Storage- 1 TB SSD, Suitable GFX Dedicated Graphic Card and Microsoft Office Operating System- Windows 11 Pro for business, 16 GB DDR4 RAM, USB Key board and Optical Mouse. At least 24" LED Monitor with three years onsite warranty and antivirus for 3 years Printer- Multifunctional Printer for office with A4 & A3 page.	
2.	Continuous flow interface	
	2.1 The continuous flow interface should be capable of delivering at least 5 or more reference gases without any hardware modifications.	
	2.2 The interface should have provision for Software programmed dilution of analyte gases (both sample and reference).	
	2.3 Interface must have "gas saver mode" for all reference gases, in which there is zero consumption of reference gas when it is not required in the analytical program.	
3.	Elemental Analyzer	
	3.1 The system must have dual furnace one for combustion and another for reduction with temperature control mechanism.	The system must have not more than two furnaces for combustion and reduction with appropriate temperature controlled mechanism.
	3.2 The furnaces should be able to achieve a temperature of 1100 °C or higher in case of combustion (CNS mode) and 1400°C or higher in case of pyrolysis (OH mode).	
	3.3 The system should be offered with a zero blank auto sampler for continuous analysis of 100 samples or more.	
	3.4 It should be possible to analyze Sulphur at a higher column temperature than Carbon and Nitrogen within the same run. The temperatures of the column should be acquired by the	



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	software during sample analysis for monitoring and diagnosis purposes.	
	3.5 CNS precision should be guaranteed for all three isotopes in a single run. The external precision (1σ) should be:	
	$\delta^{13}\text{C}$ (CO_2): ≤ 0.10 ‰ or less	
	$\delta^{15}\text{N}$ (N_2): ≤ 0.15 ‰ or less	
	$\delta^{34}\text{S}$ (SO_2): ≤ 0.20 ‰ or less	
	3.6 Below external precision for OH (1σ) should be guaranteed:	
	$\delta^{18}\text{O}$ (CO): ≤ 0.3 ‰	
	δD (H_2): ≤ 2 ‰	
	3.7 EA should be capable of operating as a standalone unit for CNS elemental analysis.	
	3.8 Minimum 2 primary standards (for bulk CNSOH) required to calibrate the IRMS should be quoted.	
4.	Liquid chromatography and Interface	
	4.1 Automated HPLC-IRMS system for isotopic analysis of $^{13}\text{C}/^{12}\text{C}$ in compounds that are Chromatographically resolved in HPLC column.	
	4.2 Hardware options must include isocratic pump, 80 position or more place auto sampler/column oven/columns for IRMS sample analysis. It must have all necessary interfaces for the sample to convert into gaseous form/dilution of samples with minimum maintenance and highly reliable/reproducible oxidation technique to convert sample into CO_2 .	
	4.3 Suitable interface to convert the sugars eluted from LC into CO_2 . The interface should ensure moisture free delivery of CO_2 to the IRMS.	
	4.4 The interface should be free from crystallization due to usage of aggressive chemicals.	
	4.5 Acquisition of samples on LC-IRMS should strictly through one software only.	
	4.6 The external precision should be: $\delta^{13}\text{C}$ (CO_2): 0.30 ‰ or better	
	4.7 Minimum 2 primary standards (of sugar) required to calibrate the IRMS should be quoted separately	
5.	Consumables and spares	
	5.1 Maintenance kits for IRMS: 5 no. must be quoted	
	5.2 Maintenance kits for EA: 2 no. must be quoted	
	5.3 Consumables for 1000 CNS and 4000 CN analysis (EA) must be quoted.	
	5.4 Consumables for 4500 OH analysis (EA) must be quoted.	
	5.5 Consumables for 1000 LC analysis must be quoted.	
	5.6 Two high-purity Helium gas cylinders (99.999% purity) should be supplied.	



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	5.7 Two high-purity Oxygen gas cylinders (99.995% purity) should be supplied.	
	5.8 Two high-purity Nitrogen gas cylinders (99.999% purity) should be supplied.	
	5.9 Two high-purity Carbon Dioxide gas cylinders (99.995% purity) should be supplied.	
	5.10 Two high-purity Sulphur Dioxide gas cylinders- small (99.5% purity) should be supplied.	
	5.11 Two high-purity Hydrogen gas cylinders- small (99.999% purity) should be supplied.	
	5.12 Two high-purity Carbon Mono-oxide gas cylinders- small (99.99% purity) should be supplied.	
	5.13 Seven double stage SS diaphragm gas regulators should be supplied (1 for each gas species).	
	5.14 Scope includes SITC of all required accessories and associated parts for the above-mentioned gas cylinders/system (gas purifiers / control panel, gas line fittings, plumbing and installation etc.)	
	5.15 15 KVA UPS with minimum 1 hour backup must be quoted.	
	5.16 Three tables for installation of a complete instrument must be quoted.	
6.	Other conditions	
	6.1 The technical compliance should be supported by certificates, published brochures, manuals, datasheets, and other supporting documents all of which are to be supplied along with the quote.	
	6.2 Complete users list in India who are using similar instruments along with their contact details including email id should be submitted along with the tender.	
	6.3 The bidder/OEM should have mandatorily successfully executed one contract for supply of similar category equipment during the last 3 financial years (i.e. 2022-23, 2023-24 & 2024-25) before the bid opening date to any Central/ State Govt. Organization /PSU. Purchase order with contract value & invoice copies of relevant contracts (proving supply of required quantity any one financial year) and performance certificate from concerned user to be submitted along with bid in support of quantity supplied in the relevant financial year along with the technical bid.	
	6.4 The mentioned precisions of IRMS and associated devices must be demonstrated at the time of installation	
	6.5 The Technical Committee reserves the right to conduct site visits to verify the quoted specifications on an existing installation of the instrument nearby locations at any point during the tendering process or prior to the placement of the purchase order. The vendor must arrange such a demonstration within 15 days of receiving the communication. Failure to comply within the stipulated time will be construed as non-compliance by the	



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	manufacturer with the claimed specifications. Consequently, the committee may disqualify the product during the technical evaluation process.	
	6.6 The supplier must have a technical and application support team based in India.	
	6.7 The supplier must provide proper demonstration and training after successful installation. The supplier must provide onsite application training in every four months or as and when required till the warranty period.	
	6.8 Vendors must provide pre-installation requisites along with tender clearly citing the space requirement/dimension of the individual modules.	
	6.9 The delivery of the instruments should be completed within 5 months after the confirmation of the order. The installation should be completed within two months of delivery of instruments at site.	
	6.10 Vendor must have local isotope service organization in India – provide documentary proof.	
7.	Regulatory Standards: CE, IEC, EN and other international standards (as applicable)	
8.	Provision of on-site technical support for equipment operation for a duration of three years	
9.	L1 will be selected based on the cost of the system with all accessories with 3 years of comprehensive warranty including all the spares and software updates with a written undertaking on stamp paper of availability of spare parts for another 10 years . No charges of spare parts will be paid during the warranty period.	
10.	Manufacturer should mention the year of introducing the particular model in the market and confirm the availability of spare parts for another 10 years.	
11.	Vendor must submit the OEM for the instruments and the accessories and Manufacturer's Authorization Certification along with the quotation.	
12.	Vendor should allow 3 installations (only service and application part) in addition to the initial installation in case of relocation within the same premises or nearby buildings. IQ/ OQ/ PQ is required during every new installation.	
	Warranty-03 years	

Bid Corrigendum

GEM/2025/B/6674393-C3

Following terms and conditions supersede all existing "Buyer added Bid Specific Terms and conditions" given in the bid document or any previous corrigendum. Prospective bidders are advised to bid as per following Terms and Conditions:

Buyer Added Bid Specific Additional Terms and Conditions

1. **OPTION CLAUSE:** The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$, subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.
2. **Scope of supply (Bid price to include all cost components) :** Supply Installation Testing and Commissioning of Goods
3. **Proof for Past Experience and Project Experience clause:** For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria:a. Contract copy along with Invoice(s) with self-certification by the bidder that service/supplies against the invoices have been executed.b. Execution certificate by client with contract value.c. Any other document in support of contract execution like Third Party Inspection release note, etc.**Proof for Past Experience and Project Experience clause:** For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria:a. Contract copy along with Invoice(s) with self-certification by the bidder that service/supplies against the invoices have been executed.b. Execution certificate by client with contract value.c. Any other document in support of contract execution like Third Party Inspection release note, etc.
4. **Warranty period of the supplied products shall be 3 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply), at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service. Details of Service Centres near consignee destinations are to be uploaded along with the bid.**
5. **IMPORTED PRODUCTS:** In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted.
6. **Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.**
7. **Bidders can also submit the EMD with Account Payee Demand Draft in favour of Registrar, Central University of Punjab payable at Bathinda**
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Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.
8. **Successful Bidder can submit the Performance Security in the form of Account Payee Demand Draft also (besides PBG which is allowed as per GeM GTC). DD should be made in favour of**

Registrar, Central University of PUNjab
payable at
Bathinda

. After award of contract, Successful Bidder can upload scanned copy of the DD in place of PBG and has to ensure delivery of hard copy to the original DD to the Buyer within 15 days of award of contract.

9. Bidders can also submit the EMD with Payment online through RTGS / internet banking in Beneficiary name
Central University of punjab
Account No.
50100058592507
IFSC Code
HDFC0000187
Bank Name
HDFC BANK
Branch address
3027-B, Guru Kashi Marg, Near Bus Stand, Bathinda-151001(PB)
- . Bidder to indicate bid number and name of bidding entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer along with bid.
10. Successful Bidder can submit the Performance Security in the form of Payment online through RTGS / internet banking also (besides PBG which is allowed as per GeM GTC). On-line payment shall be in Beneficiary name
CENTRAL UNIVERSITY OF PUNJAB
Account No.
50100058592507
IFSC Code
HDFC0000187
Bank Name
hdfc BANK
Branch address
3027-B, Guru Kashi Marg, Near Bus Stand, Bathinda-151001(PB)
- . Successful Bidder to indicate Contract number and name of Seller entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer in place of PBG within 15 days of award of contract.
11. Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. [Click here to view the file](#)
12. Buyer Added text based ATC clauses

Make-in-India (MII) Local supplier certificate (as per order No P-45021/2/2017-PP (BE-II) by DPIIT, Ministry of Commerce and Industry, Gol.)

Bid number: _____

Name of the item(s): _____

I/We certify that the item(s) offered meets the local content requirement for

§ Class I Local supplier (Minimum 50% of local content)

§ Class II Local supplier (Minimum 20%, but less than 50%, of local content)

(Select one of the above and strike off the other)

Percentage of local content in the all quoted product(s) is _____

Details of the location(s) at which local value addition made:

(Site/facility address where local value addition is made)

**Place:
Authorized Person**

Signature of Author

Date:

Designation

Seal

2. Rate Reasonability Certificate as follows should be submitted with the technical bid

RATE REASONABILITY CERTIFICATE

Certified that

"Rates quoted by us vide Tender/Bid No _____ are same and not higher than those quoted with other Govt./ Semi Govt./ Private/ Autonomous/Similar Institutions."

Place:

Signature of Authorized Person Date:

Designation Seal:

3. MSE applying for other OEMs are required to submit EMD and PBG as per the tender, else the bid is subject to rejection.

4. CMC prices (in %) not more than 5% of contract value (exclusive GST) for the next 4 years upon completion of warranty is mandatorily required to be submitted with the technical bid itself. The cost of CMC would not be the part of the financial evaluation. The CMC will have three PM (Preventive Maintenance) visits and all breakdown visits in an year.

5. During the warranty period, spares and consumables required for the functioning of the equipment would be supplied at no cost as warranty inclusive.

6. CMC would include in its scope all the ancillary equipment/ instrument supplied for against the tender purchase order. The runtime consumables and their tentative cost (OEM pricelist) for the financial year 2025-26 should be provided.

7. Undertaking as under for the supply of brand new equipment and should not be refurbished or rebranded should be provided with the technical bid.

Undertaking of New Equipment

We M/s _____ Original equipment manufacturer, hereby undertake to provide equipment new equipment and not refurbished or rebranded equipment, at Central University of Punjab, VPO Ghudda, Bathinda, Punjab, INDIA as per the tender terms of GeM Bid No. Date
d

Place: Signature of Authorized Person

Date: Designation

Seal:

8. Undertaking as under is required for availability of spares for the next 10 years from the date of installation.

Undertaking of Spares Availability

We M/s _____ Original equipment manufacturer, hereby undertake to provide the spares for the equipment for 10 years from the date of installation of the equipment at Central University of Punjab, VPO Ghudda, Bathinda, Punjab, INDIA as per the tender terms of GeM Bid No.
..... Dated

Place:

Signature of Authorized Person Date:

Designation Seal:

9. The list of consumables along with current OEM pricelist for the equipment/instrument (not to be covered under CMC) need to be declared and undertaking of the prices of these consumables if of proprietary nature should be declared in the technical bid. No other consumables would be admitted afterwards during the CMC period.

10. Confirmation for AMC & CMC services for next four years after expiry of warranty period of 03 years at rates not more than @3% & 5% respectively of contract value (exclusive of GST) to be provided along with technical bid

11. CMC & Warranty period should include NIST traceable calibration of the entire facility.

12. OEM Authorization certificate is mandatorily required to be Bid Specific.

13. Buyer added bid specific terms & Conditions will supersede GeM GTC in case of any conflicting provisions.

13. Buyer uploaded ATC document [Click here to view the file.](#)

Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.
15. Buyer added ATC Clauses which are in contravention of clauses defined by buyer in system generated bid template as indicated above in the Bid Details section, EMD Detail, ePBG Detail and MII and MSE Purchase Preference sections of the bid, unless otherwise allowed by GeM GTC.

16. In a category based bid, adding additional items, through buyer added additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogs or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

*This document shall overwrite all previous versions of Bid Specific Additional Terms and Conditions.

[This Bid is also governed by the General Terms and Conditions](#)