

	<p style="text-align: center;">INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036</p> <p style="text-align: center;">Telephone: [044] 2257 9723/9798 E-mail: tender@iimail.iitm.ac.in</p>	
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The Senior Manager (Project Purchase)

Ref: SAI/1617/027/GC-MS

Dated: 30.01.2020

Special Limited Tender No: SAI/1617/027/GC-MS

Due Date: 19.02.2020, 5:00pm

Pre-Bid meeting: - Not required.

Technical Bid opening meeting on Due Date: 20.02.2020, 3:00pm

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of “Gas Chromatograph- Mass Spectrometer (GC-MS)” conforming to the specifications given in (Annexure-I).

Terms and Conditions of Limited Tender

1. **Preparation of Bids:** - The Special Limited tenders should be submitted under **Two bid system** (i.e.) Technical- and -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:

**The Senior Manager,
Project Purchase,
IC & SR Building, 2nd floor,
I.I.T. 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.
 - 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 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 60 days from the due date of tender
12. **Technical Bid Opening:** The technical bid will be opened on **20.02.2020, 3:00pm** at the Department of SAIF, IIT Madras and the **financial bids** of those tenders who are technically qualified will be opened at a **later date under intimation to them.**
13. **EMD:** - The **EMD (Should be in INR) in the form of Account Payee Demand Draft / Banker's Cheque for 2% of the quoted value of the item; drawn in favor of The Registrar-IIT Madras, payable at Chennai should be enclosed in the cover containing financial bid.** Any offer not accompanied with the EMD shall be rejected summarily as non-responsive.

The EMD of the unsuccessful bidders shall be returned within 30 days of the end of the bid validity period. The same shall be forfeited, if the tenderers withdraw their offer after the opening during the bid validity period. The Institute shall not be liable for payment of any interest on EMD. EMD is exempted for Micro and Small Enterprises (MSE) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME).

When a foreign vendor does not have a local agent in India, he can submit a demand draft equal to 2% or wire transfer the amount to our account as detailed in the attachment (Annexure II) and enclose the proof with the financial bid

14. **Performance Security:** -The successful bidder should submit Performance Security for an amount of 5% of the value of the contract/supply within 21 days from the issue of work/purchase order. The Performance Security should be furnished in the form of an Account Payee DD / FD Receipt from the commercial bank (or) Bank Guarantee from any nationalized bank in India.
15. **Accept /Reject:** IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.
16. **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.
17. **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.

18. 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,

The Senior Manager (Project Purchase)
IC&SR Building, I.I.T. Madras,
Chennai - 600 036.

Technical Specifications for the state- of- the- art "Gas Chromatograph- Mass Spectrometer (GC-MS)"

General Description:

GC-MS (Single Quadrupole) System with EI and CI ionization modes and with inlet having automatic pneumatic controls for all the gases and should have data system based on latest Microsoft Windows operating system for instrument control, data acquisition, chromatographic deconvolution and library search.

Technical Specifications	
GC configuration	With SSL injector; must be able to install up to 8 APC/EPC modules, providing control of up to 18 channels of APC/EPC or more
Column Oven	<ul style="list-style-type: none"> • Should have provision to accommodate two or more capillary columns • Operating temperature range should be from near ambient to 450°C • Temperature ramp rate of oven should be up to a maximum of 110°C • Temperature ramps (steps) should be 20 or better • Oven cool down time from 450 to 50 °C should be in 5.0 min or less • Temperature set point resolution must be 0.1 °C or better
Chromatographic Performance	<ul style="list-style-type: none"> • Area repeatability should be < 0.5 % or better • Retention time repeatability < 0.008 % or better
Inlets	<ul style="list-style-type: none"> • GC should have two SSL injection ports. • Inlet should have advanced electronic flow/pressure control modules with Pressure set points adjustable in increments of 0.001 psi and pressure range up to 100 psi or better • Inlet Split ratio should be 7500:1 or better and must be suitable for all capillary column from 50 µm to 530 µm. • Inlet maximum operating temperature should be 400 °C or more

Capillary Columns	Polar columns: 2 Nos (0.25mm id, 0.25µm film thickness and 30meter length) HP5 or equivalent columns: 3 Nos (0.25 mm id, 0.25µm film thickness and 30 meter length)
Auto sampler	Auto liquid sampler with 50 or more vial capacity
GC Diagnostics Tests	Must provide pre-programmed Diagnostics tests. These diagnostic tests should include - Autonomous Leak and Restriction Test - Pressure Decay Test - Split Vent Restriction Test - Gas Supply Pressure Check - Septum Purge Flow Test
Mass Spectrometer	<ul style="list-style-type: none"> • Configuration: Single Quadrupole • Ionization modes: Electron Impact (EI) and Chemical Ionization(CI) • Non-coated inert EI source and CI, with Dual filament for EI, single for CI, heatable up to 350 °C. • Ion source temperature: 150 -350 °C • Quadrupole should be made up of either metal quadrupole with pre-rod or equivalent hyperbolic configuration • Mass range (m/z) upto1,000 amu or better • Mass resolution: Unit mass • Mass axis stability should be 0.10 amu/48 hrs or better • Scan rate (electronic) of 20,000 u/sec or better. • Should have independently heated GC/MS interface • Sensitivity for EI should be:1500:1 with 1µl injection of a 1pg/µl OFN or better • Sensitivity for CI should be1200:1or better
MS Transfer line temperature	MS Transfer line/interface temperature should be up to 350 °C
High vacuum system	High efficiency vacuum system with suitable Turbomolecular pump should be supplied
Workstation & Software	Latest PC with Windows based Operating system, 24'' flat screen monitor, color laser printer User friendly software for instrument control (GC temperature, interface temperature, pressure and flow rates, split ratio etc), data acquisition and data processing. Fully automated quantitative and qualitative analyses with standard and optional custom reports.
Additional Workstation	Additional workstation for data processing should be provided

Library and Database	The system should be supplied with fully compatible GC/MS Library for Metabolomics and licensed NIST 2017 Library
Accessories	<ul style="list-style-type: none"> • Installation kit, Calibration and evaluation standards • Gas cylinders for Helium, Methane and Isobutane should be provided • Two stage Cylinder Regulator with Brass Chrome plated body with S.S. Diaphragm for Helium, Methane and Isobutane should be included • Suitable Gas Purification & Control Panel with pressure Regulator for Helium, Methane and Isobutane should be included
Warranty	Full Comprehensive warranty for service and all the spare parts for the first 3 years
Training & installation	Installation must be done at user site with no extra cost Onsite Application/maintenance training (5 days) 3 or 4 staff members
Optional Items	<ul style="list-style-type: none"> • 10 KVA UPS with 1 hr backups should be provided • Capillary columns for different applications (Organic compounds, Fatty acids, metabolomics and PAH) should be quoted separately • Additional warranty, CMC for next 2 years must be quoted separately
Spares	Additional spares and consumables required for continuous operation of the instrument for next 3 years should be quoted separately
Other requirements	<ul style="list-style-type: none"> • The Service visit should be made within 48 hours after report of the problem and the instrument should be up and running within reasonable time. Any additional delay will be added to the warranty. • The vendor should issue an undertaking for the availability of spare parts for at least 10 years from the date of successful installation. • The quoted system should be compatible with free software upgrade. • List of similar equipment supplied in India for the last 5 years should be provided. • The vendor should provide vibration free bench for the bench top mass spectrometer, if required.