



**भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली**  
मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित  
सैक्टर 81, नॉलेजसिटी, पं०ओ० मनोली, एस० ए० एस० नगर, मोहाली, पंजाब 140306  
**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI**  
(Established by Ministry of Human Resource Development, Govt. of India)  
Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab  
PAN No. - AAAAI1781K TAN No. PTLI10692D

• Phone : +91-172-2240086 & 2240121 • Fax : +91-172-2240124, 2240266 • <http://www.iisermohali.ac.in> • Email: [stores@iisermohali.ac.in](mailto:stores@iisermohali.ac.in)

*CPPP/Institute Website*

IISERM (1017)18/19-Pur

Dated : 15.05.2018

## **NOTICE INVITING E-TENDER**

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** for **Supply of and installation of Compact-GC/ Gas Analyzer** from reputed companies/firms/ individuals/ societies etc. those are in the similar business at CPPP i.e.. Tender documents may please be downloaded from the E-procurement portal website <https://eprocure.gov.in/eprocure/app> & Institute website [www.iisermohali.ac.in](http://www.iisermohali.ac.in).

-sd-

(Mukesh Kumar)  
Assistant Registrar (S&P)



**भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली**  
मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित  
सैक्टर 81, नॉलेजसिटी, पं० ओ० मनोली, ए० ए० ए० नगर, मोहाली, पंजाब 140306  
**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI**  
(Established by Ministry of Human Resource Development, Govt. of India)  
Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab  
PAN No. - AAAAI1781K TAN No. PTLI10692D

• Phone : +91-172-2240086 & 2240121 • Fax : +91-172-2240124, 2240266 • <http://www.iisermohali.ac.in> • Email: [stores@iisermohali.ac.in](mailto:stores@iisermohali.ac.in)

[CPPP/Institute Website](http://www.iisermohali.ac.in)

## **E-TENDER NOTICE**

Tender Ref.- IISERM(1017)18/19-Pur	Dated :- 15 <sup>th</sup> May, 2018
------------------------------------	-------------------------------------

### **Critical Date Sections**

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	15 <sup>th</sup> May, 2018	6:00pm
2.	Tender Document download start Date & Time	15 <sup>th</sup> May, 2018	6:00pm
3.	Bid Submission start Date & Time	15 <sup>th</sup> May, 2018	6:00pm
4.	Bid Submission End date and Time	04 <sup>th</sup> June, 2018	Upto 11:00am
5.	Tender opening Date and Time	05 <sup>th</sup> June, 2018	At 11.30 am

Online tenders are invited on behalf of the Director, IISER Mohali in **TWO BID SYSTEM** for following item(s) from the original manufacturer/supplier at CPPP i.e. <https://eprocure.gov.in/eprocure/app>. Tender documents may please be downloaded from the E-procurement portal website <https://eprocure.gov.in/eprocure/app> & Institute website [www.iisermohali.ac.in](http://www.iisermohali.ac.in). Tender fee in shape of DD/Banker Cheque of Rs 500/- (Non-refundable) and EMD of Rs.25000/- should be submitted by DD /Banker Cheque/FDR/ Bank Guarantee in favour of the Registrar, IISER Mohali payable at Mohali. However, scanned copy of the both tender fee and EMD should be upload on website along with technical bid part. The hard copy of the same in original to be send to the address mentioned below duly superscribing the supply/work name and reference/ tender ID on the envelope and same must reach before opening the bid and if not received within due date the bid will be rejected summarily.

### **The Original EMD and Tender Fee should be sent to:**

Assistant Registrar (S&P)  
Indian Institute of Science Education and Research,  
Mohali Sector 81, SAS Nagar, Mohali, Punjab,  
India, Pin: 140306

**Non-receipt of original EMD and Tender Fee will lead to rejection of tender.**

**Item Details:**

Sr.	Detailed Specification of the Stores	Qty.																											
01.	<p data-bbox="268 230 1054 264"><b>Supply of and installation of Compact-GC/ Gas Analyzer</b></p> <p data-bbox="268 302 834 336"><b><u>Technical Specification for Gas Analyzer</u></b></p> <p data-bbox="268 374 826 407"><b><u>Applications to be performed on analyzer: -</u></b></p> <p data-bbox="268 407 1302 472"><b>At-line analysis:-</b> Manual injections with gas tight syringes to achieve below detection limits.</p> <table border="1" data-bbox="268 483 813 797"> <thead> <tr> <th>Sr. No.</th> <th>Gases</th> <th>Detection Limits</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>H<sub>2</sub></td> <td>20 ppm or better</td> </tr> <tr> <td>2</td> <td>CO<sub>2</sub></td> <td>20 ppm or better</td> </tr> <tr> <td>3</td> <td>CO</td> <td>20 ppm or better</td> </tr> <tr> <td>4</td> <td>N<sub>2</sub></td> <td>20 ppm or better</td> </tr> <tr> <td>5</td> <td>O<sub>2</sub></td> <td>20 ppm or better</td> </tr> <tr> <td>6</td> <td>CH<sub>4</sub></td> <td>20 ppm or better</td> </tr> <tr> <td>7</td> <td>H<sub>2</sub>S</td> <td>100 ppm or better</td> </tr> <tr> <td>8</td> <td>NH<sub>3</sub></td> <td>100 ppm or better</td> </tr> </tbody> </table> <p data-bbox="268 846 1337 911">Any accessory or component required extra (GSV, Methanizer etc.) to perform above said application should be quoted along with system.</p> <p data-bbox="300 911 639 945"><b>i. <u>Gas Chromatograph:</u></b></p> <ol data-bbox="363 949 1366 1361" style="list-style-type: none"> <li>Fully automated dual channel system.</li> <li><b>PPC/EPC/AFC for injector &amp; detector with all zones.</b></li> <li>Carrier Gas Pneumatic program rates 0-100.0 psi/min/ 0-100.0 mL/min/0-200.0 cm/sec or ballistic or suitable as per instrument requirement.</li> <li>System must have touch screen or PC based user interface for instrument operation.</li> <li>All modules asked in tender should be controlled with single software.</li> <li>System should be suitable for all capillary and packed columns.</li> <li>System with Retention time lock option or equivalent technology and Gas Saver mode will be preferred.</li> </ol> <p data-bbox="292 1417 497 1451"><b>ii. <u>GC Oven:</u></b></p> <ol data-bbox="363 1456 1366 1736" style="list-style-type: none"> <li>Temperature range 5°C above ambient to 400 °C</li> <li>Maximum oven heating rate: 120 °C/min or above</li> <li>Cool down time from 400 °C to 50 °C is less than 5 minutes or better.</li> <li>Temperature program 8 ramps &amp; 9 plateaus or better.</li> <li><b>PPC/EPC/AFC control for injectors and detectors with single point control via software.</b></li> <li>Temperature set point resolution: 1 deg °C.</li> </ol> <p data-bbox="284 1760 868 1794"><b>iii. <u>Split/Splitless Capillary injector: Qty- 1</u></b></p> <ol data-bbox="363 1798 1366 2022" style="list-style-type: none"> <li>Split ratio easily adjustable for a wide range of analytical conditions.</li> <li>Charcoal trap in split vent to prevent contamination of split valve and lab air.</li> <li>50 °C to 450 °C in 1 °C increments</li> <li>Split Ratio: 500:1 or better</li> <li>PPC/AFC/EPC pneumatics include automatic control of split vent by split flow or split ratio.</li> </ol>	Sr. No.	Gases	Detection Limits	1	H <sub>2</sub>	20 ppm or better	2	CO <sub>2</sub>	20 ppm or better	3	CO	20 ppm or better	4	N <sub>2</sub>	20 ppm or better	5	O <sub>2</sub>	20 ppm or better	6	CH <sub>4</sub>	20 ppm or better	7	H <sub>2</sub> S	100 ppm or better	8	NH <sub>3</sub>	100 ppm or better	01 No.
Sr. No.	Gases	Detection Limits																											
1	H <sub>2</sub>	20 ppm or better																											
2	CO <sub>2</sub>	20 ppm or better																											
3	CO	20 ppm or better																											
4	N <sub>2</sub>	20 ppm or better																											
5	O <sub>2</sub>	20 ppm or better																											
6	CH <sub>4</sub>	20 ppm or better																											
7	H <sub>2</sub> S	100 ppm or better																											
8	NH <sub>3</sub>	100 ppm or better																											

6. System should be suitable for all capillary columns.

**iv. Packed Inlet: Qty – 1**

1. Maximum Operating Temperature: 350°C or better.
2. System should be suitable for all packed columns.
3. PPC/AFC/EPC pneumatics include control.

**v. FID: Qty-1**

1. MDL: < 3 pg c/s or better.
2. Dynamic range: > 10<sup>6</sup> or better.
3. Data acquisition rate: up to 200 Hz or better.
4. All gases flow should be adjustable/controlled by software with no manual control.

**vi. TCD: Qty – 1**

1. MDL: < 1 ppm or better.
2. Dynamic range: > 10<sup>5</sup> or better.
3. Maximum Operating Temperature: 400 Degree C or better.

**vii. Software: Software: System should be quoted with original licensed software needed to control the system along with original CDs.** No migration kit or Copy to right software is acceptable

**viii. Columns:** - Packed Column: HAYESEP 1/8 inc x 2 meter or equivalent and Capillary wax column with dimension 30m X 0.25mm X 0.25um. if any column required extra to perform above said application should be quoted along with system.

**ix. Essential Accessories:**

**1. Gas Cylinders & Gas Purification Panel:**

Helium Gas cylinders (2 Qty),

Hydrogen Gas Cylinder (1 Qty),

Zero Air Gas Cylinder (1 Qty.),

Nitrogen Gas Cylinders (1 Qty),

**Double stage SS regulators for each gas**

Purification panel Qty. 1

SS Tubing 100 Feet & PVC 50 Feet.

Fitting kit including Ferrules, Nuts, unions & clamps as per installation requirements - Qty 1

**2. Online UPS :** Suitable On-line UPS with 30 mins back up.

**3. Computer:** OEM or Processor Intel Core i5-4670 Processor (3.4GHz, 6M Cache), HDD 1TB 7200RPM, Graphics: Intel HD Integrated Graphics, Memory 4GB X 2 DIMM 1600MHZ, Optical DVD Recordable, Wireless WiFi Operating System Window 7 or above, cordless mouse and Keyboard.

**4. Printer:** LaserJet monochrome printer with a print capacity of 14 A-4 pages per minute and a resolution of 600 x 600 dpi.

**5. Calibration gas cylinder** with regulator for installation (Filling gas Helium or Argon)

Sr.no.	Gases	Limits
1	H2	20 ppm

2	CO2	20 ppm
3	CO	20 ppm
4	N2	20 ppm
5	O2	20 ppm
6	CH4	20 ppm
7	H2S	100 ppm
8	NH3	100 ppm

- x. **Warranty:** 3 years warranty on complete system including Gas Chromatograph, Computer, Printer, Gas Purification Panel, Tubings, Gas Regulators & UPS.
- xi. **Training:-** Installation, Familiarization & Training should be given at our lab with no additional charge.
- xii. **Future Upgradation: - On-line analysis:-** Automatic Software triggered Periodic Injections by connecting Gas Chromatograph directly to a gas line coming from reaction chamber or reactor.

**Important Notes:-**

1. Vendor should have ISO 9001 and CE or equivalent Certification.
2. All the requirements laid down under the above specifications must carefully read and understood before claiming your instrument as “complied”.
3. Please provide compliance statement sheet with technical bid and if there is any deviation in above mentioned specifications should be clearly highlighted in remarks.
4. User list should be attached along with literature. Vendor should have supplied and installed at least 100 systems in India.
5. The vendor should have office or agents in India. Qualified technical and service personnel should be available in India (preferably in Chandigarh or Delhi).

**NB :-**

- I. The online updated Price BOQ is in INR format. If bidder want to quote other than INR please specify the quoted currency in the technical bid/part and fill the amount in same updated BOQ.
- II. Please bifurcate the price on shipping terms i, e, Ex-works -> FCA/FOB -> CIP/CIF in price BOQ and specify the same in technical bid without price.

**SUBMISSION OF TENDER**

- I. All bid/ tender documents are to be uploaded online at Central Public Procurement portal i.e. <https://eprocure.gov.in/eprocure/app> only and in the designated cover/ part on the website against tender ID. Tenders/ bids shall be accepted only through online mode and no manual submission of the same shall be entertained except tender fee and EMD. Late tenders will not be accepted.
- II. The online bids shall be opened at the office of the Assistant Registrar (P&S), IISER Mohali, on above given date and time. If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be attended on the next working day at same time and place. IISER Mohali will not be responsible for any error like missing of schedule data while downloading by the Bidder.
- III. The bidder shall upload the tender documents duly filled in and stamped by the authorized

- signatory on each and every page. Tender not submitted/uploaded in the prescribed form and as per the tender terms and conditions shall be liable for rejection.
- IV. The bidder shall upload scanned copy of the PAN Card, GST number, Service tax registration number duly signed and stamped.
- V. E-procurement system ensures locking on the scheduled date and time. The system will not accept any bid after the scheduled date and time of submission of bid.

## **INSTRUCTIONS**

1. The Online bids should be submitted directly by the original manufacturer/supplier, If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company for quoting the price otherwise such quotation will be rejected.
2. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute. Before the deadline for submission of the online bid, IISER Mohali reserves the right to modify the tender document terms and conditions. Such amendment/modification will be notified on website against said tender ID.
3. The rates offered should be FOR Chandigarh/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Supplier from outside India should mention the Ex-works/FOB/FCA/CIF/CIP price clearly. Conditional tenders will be summarily rejected.
4. In case of Ex-godown terms the amount of packaging forwarding freight etc. should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payments towards any purchase, Letter of credit can be opened if required.
5. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY under notification no- 51/96 –CUSTOM DATED 23/7/1996 AND DSIR REGISTRATION NO TU/V/RG/-CDE(1062)/2011 DT. 02/09/2011 / EXCISE NOTIFICATION NO. 10/97- CENTRAL EXCISE DT. 01.03.1997.
6. Tax: This Institute is not exempted from the payment of GST. The current rate (i.e. percentage of GST should be clearly indicated included or excluded) wherever chargeable. Please also provide/upload the copy of PAN card, GST number duly self-attested.
7. Concessional GST is applicable for all the items purchased for Research labs vide Ministry notification no. 45/22017 dated 14.11.2017 and 47/2017 dated 14.11.2017.
8. Bidder/s quoting in currency other than **Indian Rupee (INR)** should explicitly mention the currency in which tender quoted wherever applicable in Technical Bid along the tender documents.
9. The delivery period should be specifically stated. Earlier delivery will be preferred.
10. The firms are requested to provide/upload detailed description and specifications together with the detailed drawings, printed leaflets and literature of the article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
11. Validity of offer: 90 days. The warranty period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance Guarantee @ 10 % of the value of supply order as per norms may be sought from the firms.

12. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved by the IISER Mohali. For any corrigendum and addendum please be checked the website <https://eprocure.gov.in/eprocure/app> and <http://www.iisermohali.ac.in>
13. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

-sd/-  
(Mukesh Kumar)  
Assistant Registrar (S&P)