



**INDIAN INSTITUTE OF SCIENCE EDUCATION AND
RESEARCH THIRUVANANTHAPURAM (IISERTVM)
(Govt. of India, Ministry of H.R.D)**

PH: 0471-2597454
FAX:0471-2597427
EMAIL: PURCHASESTORES@IISERTVM.AC.IN

CET CAMPUS, KULATHUR, ENGINEERING COLLEGE.P.O
THIRUVANANTHAPURAM 695016,
KERALA, INDIA.

Date: 06th January 2016

INVITATION TO TENDER
No: IISER/PUR/6877/15
Due Date: 27th January 2016 [4PM]
Date of Opening: 28th January 2016 [3PM]

Dear Sirs,

SUB: Supply of Gas Sensor Characterization System.

We invite Sealed Tenders for the following items:

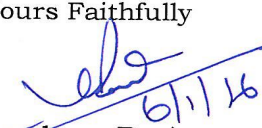
Sl #:	Item/ Description
1.	Gas Sensor Characterization System Specifications as per Annexure I, A & B

Please quote your lowest rate and shortest delivery period as per the following terms. Your offer in sealed cover **SUPERSCRIBING TENDER NUMBER AND DUE DATE** shall reach us on or before the due date and time. Please follow "Instruction to Tenderers" attached.

- EMD** : **Rs. 46,000/-in the form of DD or B.G. to be submitted along with the quote. Quote received without EMD will be summarily rejected.**
- Payment** : Within 30 days after supply and installation/Net 30 days /LC. **No advance payment will be made by IISERTVM.**
- Delivery** : To be delivered at our stores (Free delivery). If import, mention Ex-works/FCA/CIP terms with clear breakup charges.
- Taxes & Duties** : Indicate taxes and duties. We are exempted for customs duty under 51/96 notification and Excise duty under 10/97 notifications.
- Discount** : Indicate, if any.
- Delivery Schedule** : Required Immediately. Indicate your schedule
- Validity of quote** : 60 days

Thanking You,

Yours Faithfully


(K. Bhaskara Rao)
Deputy Registrar
[Purchase & Stores]

P.S: CATALOGUE/LEAFLET FEATURING ALL TECHNICAL SPECS/INFORMATION OF THE PRODUCT QUOTED SHALL ACCOMPANY THE OFFER.

Sr No	Item	Range	Units
1	Digital Mass flow controllers		
	Synthetic Air (N ₂ +O ₂)	1000 sccm	1
	N ₂	2000 sccm	1
	N ₂	50 sccm	1
	Multiple gas calibrated MFC (O ₂ , H ₂ , CO, NH ₃ , NO _x etc)	100 sccm	1
	Multiple gas calibrated MFC (O ₂ , H ₂ , CO, NH ₃ , NO _x etc)	20 sccm	1
	Multiple gas calibrated MFC (O ₂ , H ₂ , CO, NH ₃ , NO _x etc)	5 sccm	1
2	MFC readout, software for control	For 6 MFCs	
3	Sensor chamber	<ol style="list-style-type: none"> 1. Metal chamber (case) with vacuum tight lid with 'o'ring, having a Quartz viewing port and two inlets compatible with ¼" SS tubing joints. (Dimensions as shown in design above 100 X 50 mm) may have nut-bolt locking system. Leakproof upto 10⁻² mbar vacuum or better. 2. A heater installed inside capable of upto heating not less than 500 °C with an appropriate thermocouple and having a thin Alumina (~2 mm) plate fixed on top for sample mounting. 3. 6 pairs of equidistant electrically insulated sealed electrical connectors on either side of the sample mounting alumina plate, through the bottom or the wall of 	1

		<p>the chamber.</p> <p>4. The internal height from alumina plate surface to the lid-inner roof should be about 10-15 mm.</p> <p>5. Any suggestions for better machining or operational ease are welcomed along with these minimum requirements.</p> <p>6. The final design drawings should be submitted for approval before manufacturing the chamber. However, it is advised to be included in the Quotation for better comparison.</p>	
4	Electronic solenoid timer valves (SV) with control, readout and power supply	0 – 999 sec	2
5	Vacuum Pump (rotary)	Interfacing capability	1
6	Constant temperature bath	<p>1. -50 to 100 °C or more</p> <p>2. PID temp control</p> <p>3. Digital display and control</p> <p>4. ± 0.2°C accuracy or better</p> <p>5. Volume minimum 4 litres</p> <p>6. Power AC 230V & 50 Hz cycle.</p>	1
7	Vacuum Pirani Gauge		1
8	¼" SS tube and fittings	An adequate number for the complete connection as shown in the Annexure B	2
9	Electrical control, cables and necessary connectors		1
10	System integration, installation and testing		1

All kinds of spares for maintaining the system and personal computer based interfacing for operations should be quoted

Annexure A

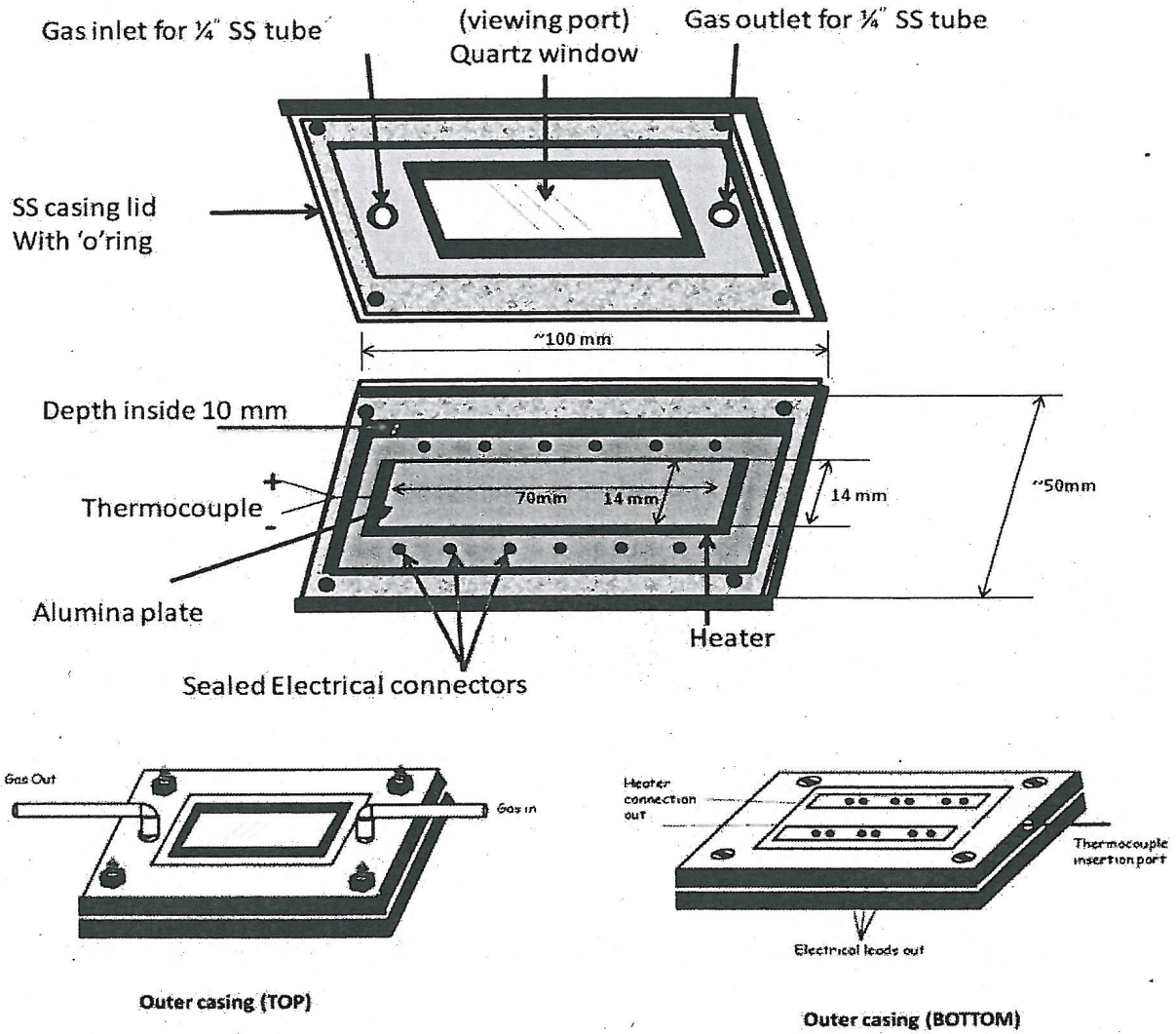
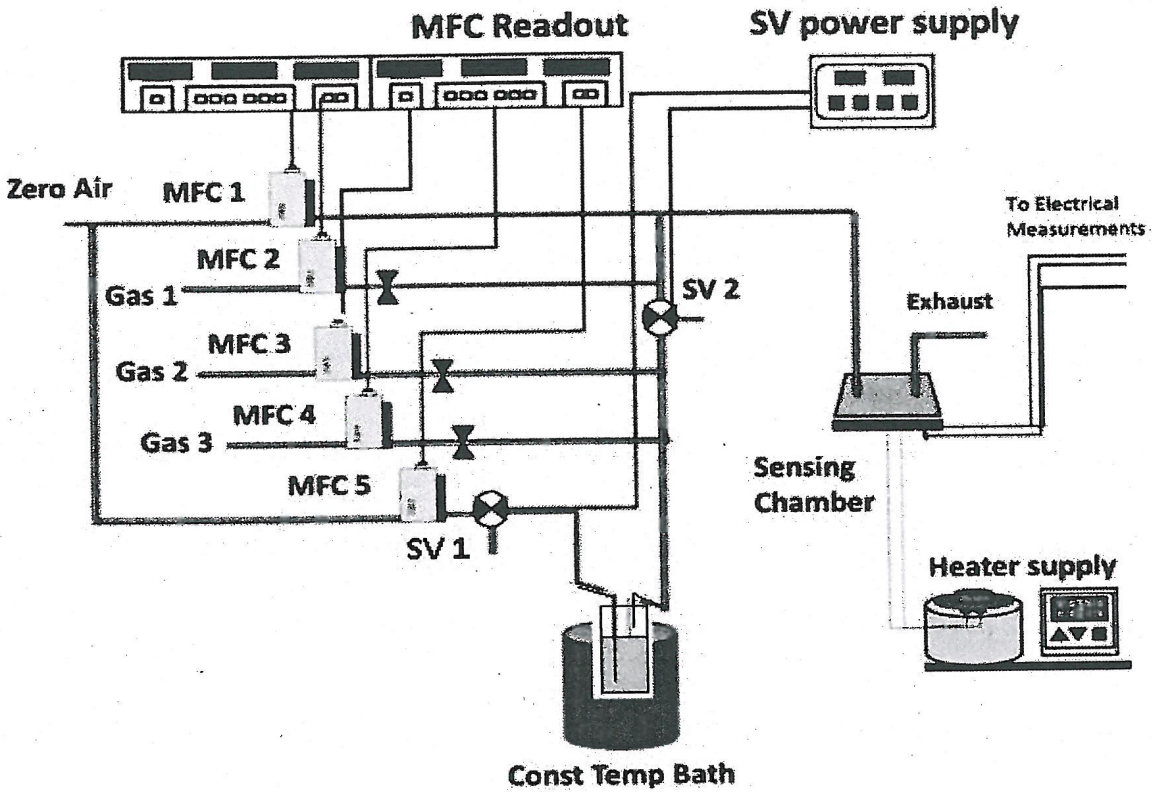


Figure A1: SS Heating chamber schematic diagram

[Handwritten Signature]
 Deputy Registrar
 Purchase & Stores

Annexure B



The setup configuration schematic diagram

MFC : Mass Flow controller

SV: Solenoid timer Valve

Deputy Registrar
Purchase & Stores

IISER-TVM

INSTRUCTION TO TENDERERS [IMPORTS]:

1. **PRICE:** The price quoted shall be firm. The terms of FOB/EXW/FCA/CIF/CIP etc shall be clearly mentioned. Please mention the breakup of Ex-works, FCA and CIP. Also mention the total weight of the shipment after packing.
2. **AGENT & AGENCY COMMISSION:** In case Tenderer is represented by any agent in India, their name and address shall be furnished. The amount of commission included in the price shall be clearly shown in the offer; which will be paid directly to the Indian Agents by purchaser in equivalent Indian Rupees. In case Indian agents existing and their agency commission is not shown in the Tender, reasons for the same shall be clearly mentioned in Tender. Details of Indian agent's statutory registration shall be stated. If Agency Commission is paid by Principals in foreign currency, the reasons for the same and exemption from Enforcement Directorate in India shall also be provided.
3. **LEAFLET/CATALOGUE:** Tenderer should furnish all necessary leaflet/catalogue etc., of the stores offered by him to enable the Purchaser to evaluate his offer correctly.
4. **MODE OF DESPATCH:** Tenderer shall indicate the mode of dispatch (*i.e.*, Sea/Air-freight/Parcel Post, etc.) depending upon the normal mode of dispatch adopted by him for the type of stores offered for consideration of the Purchaser.
5. **COUNTRY OF ORIGIN:** Tenderer shall indicate in his offer the country of origin of goods offered and the name and address of the manufacture.
6. **INSURANCE:** If insurance of the goods is felt necessary, the same shall be advised by the Tenderer in the offer.
7. **DELIVERY/SHIPMENT:** The time for and date of delivery quoted shall be reasonable/realistic and shall strictly be adhered to in case of placing order on the Tenderer.
8. **MODE AND TERMS OF PAYMENT:** Preferred payment terms of Institute is Sight raft/Net 30 days. If LC is preferred by vendor, payment will be 90% against shipping documents and 10% after installation and commissioning. In both cases APBG for 10% of the P.O. value should be furnished before final payment which should be valid during warranty period. **OURS BEING A GOVT OF INDIA EDUCATIONAL INSTITUTE WE ARE UNABLE TO MAKE ANY ADVANCE PAYMENT**
9. **WARRANTY:** Period of warranty and conditions shall be clearly mentioned in the Tender.
10. **GENERAL:** The Tenderer shall also be complied with the following:
 - a. Mention your Banker's name and address.
 - b. Show approximate net and gross weight and dimensions of packages/cases.
 - c. Furnish list of recommended spares for satisfactory operation for a minimum period of one year if the quote is for Plant & Machinery, Equipments etc.
 - d. Details of any technical service, if required for erection assembly, commissioning and demonstration.
 - e. Conform that the prices quoted are inclusive of all taxes, levies, duties arising in the tenderer's country.
 - f. The offer is valid for a minimum period of 90 days from the due date of opening of the tender.
 - g. Samples, if called for, will be sent free of all charges.
 - h. Late tenders and Delayed will not be considered.
 - i. Offers made by Indian Agents on behalf of their Principals, should be supported by the Proforma Invoice of their Principals.
 - j. The authority of person signing the tender, if called for, shall be produced.
 - k. The purchaser reserves the right to accept or reject the lowest or any other offer in whole or in part without assessing any reason.
11. **Tender Opening:** All tenders will be opened at GEM Building. Authorized representatives [**with authorization letters**] of the bidders may attend the Tender Opening.


DEPUTY REGISTRAR
[PURCHASE & STORES]

IISERTVM
INSTRUCTIONSTOTENDERERS[INDIGENOUS].

1. Tenders should be sent in sealed envelopes superscribing the relevant tender no. and the due date of opening. Only one tender should be sent in each envelope.
2. Late tender and Delayed Tenders will not be considered under any circumstances.
3. Sales Tax and /or other duties/levies where legally levies and intended to be claimed should be distinctly shown separately in the tender.
4. (a). Your quotation should be valid for a minimum period of 60 days from the date of opening of the Tender. Quotation with firm prices will be preferred.
(b). Prices are required to be quoted according to the units indicated in the Invitation to Tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. **(a) Preference will be given to those tenders offering supplies from ready stocks. The basis of delivery is at IISER site free of cost.**
(b) Our payment terms are within 30 days of receipt and acceptance of the item at our site.
6. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
(b) Samples, if called for, should be submitted free of all charges by the tenderer and the IISER shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to take back the samples at his own expense.
(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
(d) **Specifications:** Stores offered should strictly conform to our specifications. Deviations, if any should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary along with the quotations. Test Certificates wherever necessary should be forwarded along with supplies. Whenever specifically mentioned by us the tenderer could suggest changes to specifications with appropriate reasons for the same.
7. IISER shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted.
8. Corrections, if any, in the Quotation must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail. Quotation must have price for each line item and totaling of the price including taxes and duties should be clearly mentioned.
9. The tenderer should mention the name of his bankers, Sales Tax Registration, PAN number etc in the tender.
10. The authority of the person signing the tender, if called for, should be produced.
11. The purchaser reserve the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.
12. IISER being a Govt of India Educational and Research Institute, is exempted from payment of Excise Duty under Notification No. 10/97 and Customs Duty under Notification No. 51/96- Customs dated 23rd July 2009. Also, we can issue Form16 as per VAT Rules.
13. The stores supplied should be covered with minimum of 1 year warranty from the date of supply, installation and commissioning.
14. Earnest Money Deposit/ Bid Security should be submitted alongwith your quote as mentioned in Invitation for Tender. EMD should be in favour of Indian Institute of Science Education and Research Thiruvananthapuram valid for 90 days
15. Tender Opening: All tenders will be opened at GEM Building. Authorized representatives **[with authorization letters]** of the bidders may attend the Tender Opening.


DEPUTY REGISTRAR
[PURCHASE & STORES]