भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित

सैक्टर 81,नॉलेजसिटी,प॰ओ॰ मनोली, एस॰ ए॰ एस॰ 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 GST: 03AAAAI1781K2ZS

• **Phone : +91-172-2240086 & 2240121** • **Fax : +91-172-2240124, 2240266** • **http://www.iisermohali.ac.in** • **Email:** stores@iisermohali.ac.in

CPPP/Institute Website

IISERM (1088)18/19-Pur Dated : 30.11.2018

NOTICE INVITING E-TENDER

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** for **Supply and installation of Plant Growth Chambers** from reputed companies/firms/ individuals/ societies etc. those are in the similar business 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.**

-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,प॰ओ॰ मनोली, एस॰ ए॰ एस॰ 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 GST: 03AAAAI1781K2ZS

• **Phone : +91-172-2240086 & 2240121** • **Fax : +91-172-2240124, 2240266** • **http://www.iisermohali.ac.in** • **Email:** stores@iisermohali.ac.in

CPPP/Institute Website

E-TENDER NOTICE

Tender Ref.- IISERM(1088)18/19-Pur	Dated :- 30th November, 2018

Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	30th November, 2018	6:00pm
2.	Tender Document download start Date & Time	30th November, 2018	6:00pm
3.	Bid Submission start Date &Time	30th November, 2018	6:00pm
4.	Bid Submission End date and Time	20th December, 2018	Upto 11:00am
5.	Tender opening Date and Time	21st December, 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.**Tender fee in shape of DD/Banker Cheque of Rs 590/- (Non-refundable) and EMD of Rs.130000/- 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:

S. N.	Details of Specifications of the Stores	Qty.
1.	**Supply and installation of Plant Growth Chamber,** **Technical Specifications**: as given below	01 No.

A	**Construction material and insulation** The interior construction should be rust free with finishing of 22-gauge smooth or galvanized steel/22-gauge electro-zinc plated steel. The exterior construction should be rust free with finishing of 18-gauge galvanized steel/18 gauge electro-zinc plated steel. With optional observation window.
B	**Growth racks and growing area**
1	The growth chamber should be provided with Three (3) tiers of (each light module should be shielded and removable) illuminated, shelves for growing plants as well as other applications
2	The material of shelving unit should be woodless, rust free and should not deteriorate by temperature and humidity changes.
3	Growing area of 22ft2 to 25ft2. Growth height minimum and adjustable 30-35cm.
C	**Illumination and lights**
1	The growing area should be illuminated with light sources using PAR florescent lamps with incandescent bulb
2	There should be provision of light intensity of from 50 to 350 micromoles/meter2/s in each shelf.
3	Dimmable light option is required
D	**Temperature and air flow**
1	The programmable temperature range should be 7°C to 42°C or better when lights are OFF. The programmable temperature range should be 10°C to 42°C± or better when lights are ON
2	The temperature uniformity within the growth chamber should be ±0.7°C or better.
3	The temperature programming should be controlled through microprocessor.
4	The condensing unit should be charged with CFC free refrigerant.
5	Air-cooled condenser with hot gas bypass system with solenoid valve, heating by hot gas bypass no heater use for temperature.
6	There should be uniform Horizontal air circulation within the growth area involving flow of conditioned air through rear wall plenums and evaporator fan.
E	**Humidity control** is must. Low energy ultrasonic humidity generator and advanced humidity sensors with an alarm are required to control moisture within the chamber.
1	The system should have humidity greater than 50-70% or better condition. Humidifier & dehumidification should be provided, PAN type.
F	**Control panel**
1	The control system should function in real time manner with option for user defined programs.
2	The control panel should be microprocessor based and have feature to program light, temperature, humidity within the growth chamber, Password protection.
3	Temperature, humidity and light requirements should be programmable as per the needs with settings for day and night timing. Arrangements for setting upper and lower temperature limits with alarm system. Auto restart, battery backup for Program memory, delay timer for power on, ambient temp monitor, dual experiment protection via integrated yet independent temp limit shutdown, auto-restart when temp inside is normal. Castor for easy movement.
4	There should be microprocessor-based control of photoperiods (Light and dark hours) with multi step programing and storage of at least 50 programs.
G	**Other specifications**
1	The growth chamber should be provided with clear opening door.
2	Door should have gasket with magnetic core.
3	The door should have lock system.
4	The system should include suitable voltage stabilizer
5	Within the growth chamber one or more power point should be provided.
6	User list with performance certificate of at least 5 or more similar user for plant tissue cultural and Arabidopsis application. On site demo may required in technical evaluation time
H	**Warranty and Maintenance: the growth chamber should come with minimum five years of warranty**.
I	**Compliance sheet with Yes/No is required for each tender specification**
J	**Optional quote separately**

2)	**Supply and installation of Plant Growth Chamber,** **Technical Specifications**: as given below	01 No.

1	**Plant growth area and height:** 55-60 ft2 in three (3) tiers It should give total shelving or floor area more than 55 (±5) ft^2 for growing plants with 20 (±2) inch growth height in each shelf for Arabidopsis. For crop plants multiple shelves should be removable to achieve the growth height approximately 60-inches.	
2	Light intensity: 50 to 300 micromoles/m2/s each tiers with three events, having horizontally placed lamps, Fluorescent and Incandescent lamps, have PAR spectrum in each tier including with dimmable option. Similarly, the light intensity should be programmable from 500 µmol/m2/s to 900 µmol/m2/s for Rice and other crop plants or better by dimmable option. The programming of light option should allow the user to change the day and night cycle length conveniently.	
3	Temperature range: 4°C to 42°C (in dark) and 10°C to 42°C ±1°C (with lights on) at control point	
4	RH : 50 to 80% humidification with dehumidification system through use of ultrasonic humidifier (optional: through use of spray nozzles with advance sensor with RO System)	
5	Growth height: minimum 20-25 inches in each tier	
6	Refrigeration should be provided of air-cooled condensing unit with hot gas bypass system for continuous compressor operation for heating and cooling	
7	Single board control for light, humidity and temperature and controlled thru single controller	
8	Dimmable light required	
9	Memory of minimum 50 or more programs storage with multistep feature. Programs should be configurable to run in real time or elapsed time. It should have continuous, diurnal and multi-step program feature.	
10	The number of output channels used for control of lighting events, convenience outlets etc., minimum 20 channels.	
11	Dual experiment protection via integrated yet independent temperature limit shutdown. Temperature low and high deviation alarm (audio and visual); ambient temperature monitoring.	
12	Auto restart in case of power failure with inbuilt battery to protect memory. Two calibration offsets per input channel. One for lights ON and another for lights OFF. Power failure event logging	
13	The cabinet should have two doors with magnetic gasket providing a tight seal.	
14	The cabinet should have two power sockets inside the chamber to connect any small equipment. Preferable to have on/off control of one power receptacle thru controller.	
15	The cabinet should have general features like door lock with keys, password protection for controller operation, statu LED in front to display mode of operation.	
16	Attach catalogue for the model quoted highlighting the important features and including records and performance statement of minimum three (3) such installations in India. We may visit for on site demo during technical evaluation time.	
17	Suitable Voltage Stabilizer	
18	**Warranty: Minimum five years** **After five years of warranty period price for five years of annual maintenance contract (AMC) must be quoted with terms and conditions clearly. Similarly, comprehensive maintenance contract rate should be supplied.**	
19	The system should be equipped with all accessories for proper & effective functioning (such as power supply cords, stabilizers etc.) Any up gradation of the system accessories and software within two year from the time of installation should be provided free of cost.	
20	Two extra sets of light bulbs should be included in the final price quote for both the chambers.	
21	A high-performance branded vacuum cleaner (2000-watt capacity) should be given by the supplier to clean the chambers.	
22	A branded Light meter to check the intensity of light should be provided.	
23	IISER Mohali reserves the right to change the final configuration of chamber including the warranty and AMC.	
24	Compliance sheet with Yes/No is required for tender specifications	
25	Optional quote separately	

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 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-TU/V/RG/-CDE(1062)/201 CUSTOM DT.30.08.2016.

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 of Finance, 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)