भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

शिक्षा मंत्रालय, भारत सरकार द्वारा स्थापित

सैक्टर 81, नॉलेज सिटी, प° ओ° मनोली, एस° ए° एस° नगर, मोहाली, पंजाब - 140306

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI

(Established by Ministry of Education, Govt. of India)

Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab

PAN No. - AAAAI1781K GST No. 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 (1313-F) 20/21-Pur Dated: 01st October 2020

NOTICE INVITING E-TENDER

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** for the **Supply, installation, Testing and Commissioning of FPLC Integrated Filtration & Chromatography System with accessories** as per technical specification and details given below and BOQ list 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.**

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

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E-TENDER NOTICE

Tender Ref.- IISERM(1313-F)20/21-Pur	Dated :- 01st October 2020

Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	01st October 2020	6:00pm
2.	Tender Document download start Date & Time	01st October 2020	6:00pm
3.	Bid Submission start Date &Time	01st October 2020	6:00pm
4.	Bid Submission End date and Time	30th October 2020	Upto 11:00am
5.	Tender opening Date and Time	31st October 2020	At 11:30am

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. 95,000/- should be submitted by DD /Banker Cheque/FDR/ Bank Guarantee in favour of the Registrar, IISER Mohali payable at Mohali or through Online mode in Institute Account (Canara Bank Saving Account Number 4790101001912 and IFSC Code CNRB0004790). 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 (P&S)
Indian Institute of Science Education and Research Mohali
Sector-81, Knowledge City, SAS Nagar, Mohali, Punjab, India,
Pin: 140306

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

Sr.	Description	Qty. (in units)
1.	**Supply, installation, Testing and Commissioning of FPLC Integrated Filtration & Chromatography System with accessories** **Technical Specifications:** **a) Automated Integrated Protein Purification System** for minimizing the product loss due to degradation of proteins/biomolecules. Clarified feed stream from filtration system can be directly transferred to chromatography system. The fractionation from the chromatography system after completion can be directed back to filtration system for concentration/buffer exchange. After buffer exchange the sample can be taken for checking the quality attributes like batch to batch analysis using Size Exclusion method. System for fast purification of proteins from microgram to milligram level of target protein. Based on cold lamp technology, providing high signal to noise ratio without any heating of the UV flow cell, high intensity lamp in the detection system which does not require any start up time. **b) Installation Requirements:** Please specify the Pre-requisites for installation and commissioning of the system. **c) Warranty requirement** – One year on site from the date of installation **d) Training** - Training workshop will have to be conducted once in six months during warranty period on installed system at IISER Mohali for the users. **e) Capability:** Fully automated Inert biocompatible system for all purification and development work from microgram to milligram scale. The system should be capable of performing Integrated purification using Micro-Filtration followed by Capture step Chromatography. Followed by Ultra Filtration and at last Polishing Step Chromatography. **I. Filtration System (One Unit):** 1. The System should be capable of handling different types of cross flow filters like Hollow fibre and cassettes. 2. System should comprises of a built in computer controlled by a touch screen giving the first hand process information like different pressures, temperatures, flow, system warnings , alarms and system health 3. System should be complete for doing microfiltration using Hollow fibre cartridges and Ultrafiltration/Diafiltration using cassettes. 4. Feed pump flow rate: Maximum: 30 ml/min Minimum: 300ml/min 5. Pump type: Feed Pump – Peristaltic Type	**01 set**

6. Feed Tank capacity:400 – 600 ml, should be equipped with the magnetic stirrer and weight feedback relay for end point control.
7. The pump control on basis of rpm, litre/min, feed pressure/ DeltaP and share rate
8. System should be able to maintain constant retentate volume and have the facility to prevent fouling of hollow fibre.
9. Should have provision for unattended operation based on certain parameters like TMP and Feed tank level.
10. Hold up volume –20 ml
11. Minimum working volume – 25ml
12. Hollow fibre to be quoted: MOC–Polysulfone, macrovoid free , MWCO -10 kDa, 100 kDa , 0.2micron Surface area to be more than 100 cm2
13. Should have accessory tunings, Gasket and clamps.
14. Mixer should remain in active state even when the system is in alarm state for keeping samples in homogenous stage.
15. System should have an in-built touch screen HMI.

II. Chromatography System: Automated Protein Purification System Qty-01

1. Inert biocompatible system for all purification and development work from microgram to gram scale.

2. Flow rate of 0.001 ml/min to 20 ml/min or better without need for changing pump-heads for the entire flow range and pressure limit of 20 MPa.

3. There should not be any siphoning effect due to gravity before the gradient formation.

4. At least 2 or more buffer inlets for every pump, altogether at least 4 inlets one each dedicated for equilibration buffer, sample loading, wash buffer and elution buffer.

5. Single source lamp with fiber optic for high sensitivity and no warm up time capable to generate full spectrum of 190 -700 nm . The lamp should have the lamp life of minimum 4000 hrs

6. Multiple wavelength detection up to 3 wavelengths from 190-700 nm with absorbance reading capability -1 to +3.5 Au.

7. System should have capability of giving double the flow rate for column packing up to 50 ml/min or more.

8. Should have manual provision to individually purge each of the four pump heads.

9. System should have the capability of running with automatic pressure control option enabling to modulate the flow rate upon reaching the set pressure and continue the run without pausing the system without dropping the flow rate less than 20 % of applied flow rate

10. It should be compatible with variable volume size mixer chamber with in-built filter to ensure homogeneous buffer composition during gradient runs.

11. The system should be equipped with a column control valve. The flow in column could be changed to up and down directions through software without changing the orientation of the column. During system washing, it should be possible to bypass the column using software.

12. The system should have the capability to direct the flow to the fraction collector, waste and other outlet ports.

13. The system should be capable of online pH monitoring with the attached flow restrictor for a better resolution. Should also have the option for bypassing either or both.

14. Cross-linked agarose and dextran resin having average bead size of less than 9 μm with Fractionation range of 10kDa to 600kDa (globular proteins) and 100 to 10000 (dextrans). The column should be a per-packed column of volume 23-24 ml capable to take pressure up-to 4 Mpa having theoretical plate height more than 45000

15. The system should have the ability to monitor conductivity in the range of 0.01 mS/cm - 999 mS/cm or better within built temperature sensor to correct variation due to temperature.

16. The system should have the capability to be integrated with third party Detectors like Fluorescence detectors, RI and Auto samplers simultaneously for increased application flexibility at the time of purchase or post-purchase.

17. Fraction collector should be equipped with drop Synchronization function for reducing sample spill during fractionation. Fraction Tubes with the following diameters should be used with Fraction collector: 12 mm, 18 mm and 30 mm, capable of taking up to 175 fractions per fraction collector.

18. System should come along with a 2and 10 MM flow cell (or the software should have the provision of normalizing the absorbance of 10 MM flow cell).

19. System Control Software:

a) License base software with 21 CFR COMPLIED
b) Should have intuitive user interface with an interactive process picture and simplified evaluation modules.
c) Built in templates for all the existing columns with option to develop method for third party.
d) Sharing of methods and results along with remote access capabilities to systems to save valuable time and resources.
e) Scouting of up to 99 runs with individual parameters in single method.
f) Method Queues for combining of different purification techniques.
g) Software should perform real time control, data evaluation, watch commands, Scouting parameters, method queue, method wizard for easy programming, column library, with report generation option.
h) Automatic data recovery after run is over should be possible.
i) The system should be capable of being installed with Design of Experiment (DOE) software integrated with the System control software as a tool for experimental design for generating precise data in fewer experiments for time and cost-efficient method development.

	20. All the accessories including PEEK Tubing, ferules and unions/connectors required to run the above should be supplied 21. **One-year Comprehensive Warranty should be provided on system and 4000 hrs. on the lamp** 22. **One year AMC to be provided for the second year** 23. **AMC charges after the second year to be provided**	

A) IMORTANT NOTES:-

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.**

III. **If quoted in foreign currency, kindly clearly specify the terms of delivery/country of origin/bank details with swift code/weight/size/dimension of shipment.**

IV. **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.**

V. **Kindly specify the weight of the product including weight of packing for assessment of Freight charges, if quoted in foreign currency. Also mention in Technical Bid/Compliance sheet the currency in which quoted.**

VI. **Kindly do not quote end of life model. Spares should be available minimum period of 5 years for quoted models.**

VII. **All MSME/NSIC/Startup Units shall be considered as per provisions/rules prescribed by Govt of India.**

B) 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. **Also bidders applying against 'MSME/NSIC Certificate" issued by appropriate Authority, should ensure that the certificate attached is relevant to the area of service/supply. For example, If the tender is for "supply & installation of Desktop"** ***the certificate should be issued for activity/area of "Computer supply and services activities etc" otherwise bid will be REJECTED without notice.***

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.

C) 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 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 for itemized L-1 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 (P&S)