



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 GSTIN – 03AAAAI1781K2ZS

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CPPP/Institute Website

IISERM (1495)21/22-Pur

Dated: 23rd August 2021

NOTICE INVITING E-TENDER

Online tenders are invited on behalf of the Director, IISER Mohali in **TWO BID SYSTEM** for the **Supply and Installation of Single-Molecule Microscope Spectrometer** 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-

Assistant Registrar (P&S)

NOTE: This is a domestic Tender according to the DPIIT Order dated 15/07/2017 and subsequent amendments to the order for Public Procurement Preference & PROVISION FOR LOCAL SUPPLIERS TOWARDS PREFERENCE TO MAKE IN INDIA. The bidder required to declare on the letter head the percentage of Local content for the quoted instrument and submit with the Technical Bid. Bidder should also give details of the location(s) at which the local value addition is made.



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E-TENDER NOTICE

Tender Ref.- IISERM(1495)21/22-Pur	Dated : 23 rd August 2021
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Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	23 rd August 2021	6:00pm
2.	Tender Document download start Date & Time	23 rd August 2021	6:00pm
3.	Bid Submission start Date & Time	23 rd August 2021	6:00pm
4.	Pre Bid Meeting Date	07th September 2021	4:00 IST
5.	Bid Submission End date and Time	23 rd September 2021	Upto 11:00am
6.	Tender opening Date and Time	24 th September 2021	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 Demand Draft of Rs 590/- (Non-refundable) should be submitted by bidder 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 Tender fee should be uploaded on website along with technical bid. The hard copy of the same in original to be sent to the address mentioned below duly superscribing the supply/work name and reference/tender ID on the envelope and same must reach before opening of the bid and if not received before due date the bid will be summarily rejected. **Micro & MSME/NSIC and Firms registered and the firms registered with concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee/EMD as per GOI notifications/GFR (2017) and Ministry of Finance OM No. F.9/4/2020-PPD dated 12 November 2020.**

Bidders will also be required to execute bond/undertaking Bid Security Declaration Form attached as ANNEXURE-I for availing exemption to submit EMD.

The Original 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 Tender Fee will lead to rejection of tender.

ITEM WISE DETAILS

Sr. No.	Description	Qty. (in units)
1.	SUPPLY AND INSTALLATION OF SINGLE-MOLECULE MICROSCOPE SPECTROMETER <u>TECHNICAL SPECIFICATIONS OF INSTRUMENT – AS PER ANNEXURE III</u>	01

A) IMPORTANT NOTES:-

- I. **This is a domestic Tender according to the DPIIT Order dated 15/07/2017 and subsequent amendments to the order for Public Procurement Preference & PROVISION FOR LOCAL SUPPLIERS TOWARDS PREFERENCE TO MAKE IN INDIA. Bidders should also give details of Localtions(s); at which the local value addition is made. Bidders are requested to furnish the declaration regarding local content/locations in Annexure II.**
- II. **The online updated Price BOO is in INR format. Bids are invited in INR only against domestic tender.**
- III. **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.**
- IV. **All MSME/NSIC/Startup Units shall be considered as per provisions/rules prescribed by Govt of India.**
- V. **Auto-extension of last date for E-Tenders has been activated by CPP Portal which has participation 2 bids or less.**

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 Delhi/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. 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 & literature of the article quoted and also should enclosed **Technical Compliance Sheet**. 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. Tenders not accompanied by detailed information as required, are liable to be rejected.
11. If any information furnished by the bidder is, at any stage found to be incorrect, false or fabricated, the Institute/purchaser shall have the absolute right to forfeit E.M.D. and security deposits, in addition to cancellation of contract, forfeiting the warranty/performance Guarantees and other action in accordance with law, such as black-listing, risk & cost etc.
12. **Validity of offer: Period for which the offer will remain open: Bidders should keep their offers valid for acceptance for a period of 6 months.**

13. 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 @ 3% of the value of supply order, in terms of *Ministry of Finance, DoE, GOI, OM. No. F.9/42020-PPD dated 12-11-2020* and as per norms may be sought from the firms.
14. Integrity pact: The technically qualified and L-1 bidder required to submit the integrity pact, immediately after acknowledgement of the Purchase order.
15. The Director, IISER Mohali reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the bidders shall be required to supply the same at the rate quoted. Director, IISER Mohali also reserves the right to accept or reject any or all the tenders without assigning any reason thereof.
16. 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>
17. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

–Sd–
Assistant Registrar (P&S)

ANNEXURE-I

Bid Securing Declaration Form

Date:_____ E-Tender No. _____ E-Tender ID _____

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or

b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders. I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)
in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration)
Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)
Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

PS: Furnish the above in original stationary/letter head with signed and sealed.

ANNEXURE-II

SELF DECLARATION [For Local Content of Products, Services or Works]

To,

The Director
Indian Institute of Science Education and Research
(Established by Ministry of Education, Govt. of India)
Sector-81, Knowledge city, PO-Manauli,
SAS Nagar Mohali-140306, Punjab

1. With reference to Order no P.-45021/2/2017 PP (BE-II) dated 04.06.2020 and No. P-45021/2/2017-PP(BE-II) dated 16-09-2020 of DPIIT, Ministry of Commerce and Industry, Govt. of India, we fall under the following category of supplier (please tick the correct category) for the items for which this tender has been floated and being bided.

- ☐ Class I local supplier – has local content equal to more than 50%. Local contents added at _____ (name of location).
- ☐ Class II local supplier – has local content more than 20% but less than 50%. Local contents added at _____ (name of location).
- ☐ Non-local supplier – has local content less than or equal to 20%. Local contents added at _____ (name of location).

2. We are solely responsible for the abovementioned declaration in respect of category of supplier. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which we may can be debarred for up to 2 years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Signature & seal of the company

Name and address of the organization

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.....
.....

Note: In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier' / 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

ANNEXURE – III

SUPPLY AND INSTALLATION OF SINGLE-MOLECULE MICROSCOPE SPECTROMETER

EQUIPMENT: Confocal Fluorescence Microscopy-based Single-Molecule Spectrometer Setup

(1) The system should be able to do the following experiments:

- a. Single-molecule FRET (smFRET) spectroscopy
- b. Pulsed-Interleaved Excitation (PIE) FRET
- c. Time-resolved FRET
- d. Fluorescence Lifetime Imaging (FLIM)
- e. Fluorescence correlation spectroscopy (FCS), Fluorescence cross-correlation spectroscopy (FCCS); FLCS, FLCCS
- f. Scanning FCS
- g. Antibunching experiments
- h. Fluorescence anisotropy, time-resolved anisotropy and anisotropy imaging
- i. Fluorescence time trace and single-molecule burst measurements and analysis

(2) Detailed Specifications:

Excitation system: Lasers and Laser Driver

- a. *Two diode lasers of wavelengths:*
 - 485 nm, both pulsed and cw operation, Power > 5 mW in pulsed mode at maximum repetition rate
 - 595 nm, both pulsed and cw operation, Power > 0.5 mW in pulsed mode at maximum repetition rate
- b. *One Laser Driver Module:*
 - computer-controlled, freely adjustable (picosecond) pulsed-interleaved excitation (PIE), essential for our single molecule FRET and FLCCS measurements
 - freely adjustable repetition rates (from single shot to 80 MHz)
 - pulsed, burst and continuous wave operation of up to 8 laser heads
 - external trigger input
 - synchronization output
- c. *Housing of the Lasers:*
 - lasers housed in a compact housing, with up to 5 excitation lasers from one polarization-maintaining optical fiber, ensuring perfect overlap of multiple colors, essential for FLCCS and smFRET applications
- d. *Filters and mirrors:*
 - Each excitation laser accompanied by a suitable fluorescence detection filter and main dichroic mirror
 - PIE filterset allowing to operate two lasers simultaneously
- e. *Tools allowing to optimize for best point measurement performance (=optimized PSF for FCS and single molecule studies): beam diagnostic tools*
 - Calibrated photo diode allowing to calculate the laser power at the objective positioning

- Camera-based monitoring of backscattered excitation light for adjustment of laser focus position to the coverslip surface and for detection of laser focus aberrations
- Simultaneous determination of focus position and excitation power without help of autofocus module (via beam diagnostic tools)

(3) Microscope System and Objectives:

- a. *Research grade motorized inverted microscope:*
 - Transmission illumination with condenser and power supply
 - Binocular with two eyepieces with crosshair
- b. *Objectives:*
 - Normal 20x and 40x objectives
 - One high NA 60x water objective
- c. *2D Image Scanning:*
 - ❖ Highly flexible scan speed galvo beam scanning in xy and piezo scanning in z for 3D imaging:
 - Imaging Speed: at least 5 fps (frames per second) in the 512 x 512 pixel mode
 - Pixel dwell times from 0.5 μ s to 1 s
 - 3 axes galvo scanning technology optimized for FCS (minimal vignetting and constant focal volume over a wide scan range)
 - Fast line scans (2 kHz or more) available for scanning FCS data acquisition
 - Upgrade available for z scanning via piezo z stage

(4) Detection System:

- a. *Detection path optimized for maximum sensitivity, enabling best performance for single molecule studies*
 - All detectors are operated in free space configuration
- b. *Two Single Photon Counting Modules (SPAD):*
 - Spectral detection range between 400 nm and 1000 nm
 - Detection efficiency of 70% at 700 nm
- c. *Detection system with a single confocal pinhole shared for all detectors*

(5) Electronics and System Software:

- a. *Electronics for both high precision and high throughput Time-Related Single Photon Counting (TCSPC):*
 - Capable of counting 4 independent detector channels simultaneously with < 1 ns dead time per TCSPC channel
 - Sustained count rates up to 80 M events/s in a single TCSPC channel
 - Time resolution of < 80 ps
 - Future upgrade should be available to improve time resolution to < 10 ps
- b. *An integrated data acquisition and analysis software capable of doing the following:*
 - Time-resolved point measurements and 3D imaging
 - Global fitting of TCSPC decays
 - Data acquisition and analyses (64 bit)
 - Confocal FLIM
 - Confocal FCS and FLCS
 - smFRET

- Anisotropy imaging
- Total correlation measurements/antibunching
- Decay diversity map + pattern matching for fit free FLIM and FLCS lifetime analysis

(6) General System Features:

- a. Modular and open system allowing a large degree of customization
- b. Possibility of addons, customizations and future upgrades, with record of success in the field (at least 3 systems)
 - Attachment for future AFM upgrade
 - Future STED upgrade, using the lasers, detectors and TCSPC from the main system
 - Future dual focus FCS
- c. *Optionally available input and output ports:*
 - Up to 2 fiber coupled input ports + 1 free beam input port for up to 3 different excitation sources
 - Up to 2 output ports for analyzing fluorescence signal with external devices

(7) Accessories:

- a. 50/50 beamsplitter (polarization insensitive)
- b. Polarization beamsplitter cube for anisotropy
- c. Optical Table for the system
- d. Computer and monitor for data acquisition and analysis.
- e. UPS with backup of at least half an hour.

(8) Warranty: Two years from the date of installation

(9) Additional requirements:

- a. Bidders should have a global installed base worldwide, with at least 5 installations of similar configuration in India (5 fully operational research systems for single-molecules spectroscopy studies).
- b. **Installation reports for 5 Indian organizations where similar systems are installed. The vendors may be requested to make a presentation at a Pre-Bid Meeting.**
 - ❖ **For attending Pre-Bid Meeting, bidders are requested to provide their contact details (Email/Contact Numbers) within 10 days from issue of domestic tender enquiry by Mail ID: stores@iisermohali.ac.in.**
- c. Bidders should clearly specify the after-sales service capabilities during the warranty period without any additional cost.