



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
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CPPP/Institute Website

IISERM (1519-2)21/22-Pur-GTE

Dated: 30th March 2022

ई - निविदा आमंत्रण सूचना NOTICE INVITING E-TENDER

सहायक उपकरण के साथ स्पिनिंग डिस्क कन्फोकल माइक्रोस्कोप की आपूर्ति, स्थापना और की कमीशनिंग के लिए दो बोली प्रणाली में निदेशक, आईआईएसईआर मोहाली की ओर से ऑनलाइन निविदाएं आमंत्रित की जाती हैं। तकनीकी विनिर्देश और नीचे दिए गए विवरण के अनुसार और सीपीपीपी पर मूल निर्माता / आपूर्तिकर्ता से बीओक्यू सूची अर्थात् <https://eprocure.gov.in/eprocure/app> निविदा दस्तावेज ई-प्रोक्योरमेंट पोर्टल की वेबसाइट <https://eprocure.gov.in/eprocure/app> और संस्थान की वेबसाइट www.iisermohali.ac.in से डाउनलोड किए जा सकते हैं।

Online tenders are invited on behalf of the Director, IISER Mohali in **TWO BID SYSTEM** for the **Supply, Installation and commissioning of Spinning Disk Confocal Microscope 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-

सहायक कुलसचिव (क्रय तथा भंडार)
Assistant Registrar (Stores & Purchase)



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
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ई - निविदा आमंत्रण सूचना / E-TENDER NOTICE

Tender Ref.- IISERM(1519-2)21/22-Pur-GTE	Dated : 30 th March 2022
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Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	30 th March 2022	6:00pm
2.	Tender Document download start Date & Time	30 th March 2022	6:00pm
3.	Bid Submission start Date & Time	30 th March 2022	6:00pm
4.	Bid Submission End date and Time	28 th April 2022	Upto 11:00am
5.	Tender opening Date and Time	29 th April 2022	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. Online Tender fee of Rs 590/- (Non-refundable) should be submitted by bidder in favour of IISER Mohali through Online mode in Institute Account (Canara Bank Saving Account Number 4790101001912 and IFSC Code CNRB0004790). However, scanned copy of the Tender fee/UTR copy should be uploaded on website along with technical bid. **Micro & MSME/NSIC and Firms registered and the firms registered with concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee 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 Tender Fee.

ITEM WISE DETAILS

Sr. No.	Description	Qty. (in units)
1.	Supply, Installation and commissioning of Spinning Disk Confocal Microscope with accessories <u>Technical Specifications:</u> As per ANNEXURE – II	01

A) IMPORTANT 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 (OEM), the OEM should furnish certificate to this effect. If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company.**
- V. Restriction under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 under sub clause 3, in terms of DOE, MoF No. F.18/37/2020-PPD dated: 8th February, 2021:**
 - (i) A bidder is permitted to procure raw material, components, sub-assemblies etc. from the vendors from countries which shares a land border with India. Such vendors will not be required to be registered with the Competent Authority, as it is not regarded as "sub-contracting".
 - (ii) However, in case a bidder has proposed to supply finished goods procured directly/indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.
- VI. All MSME/NSIC/Startup Units shall be considered as per provisions/rules prescribed by Govt of India.**
- VII. 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 Annexure I (Bid Securing Declaration Form). Late tenders will not be accepted.

- II. The online bids shall be opened at the office of the Assistant Registrar (S&P), 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. 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)/2016 CUSTOM DT. 12.10.2018.
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 enclose **Technical Compliance Sheet**. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars and documents, 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: 180 days.
 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/Performance Bank 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 extension of vide circular no. F.9/4/2020-PPD dated: 30th December 2021* as per norms may be sought from the firms.
 14. 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>
 15. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

-Sd-

सहायक कुलसचिव (क्रय तथा भंडार)
Assistant Registrar (Stores & Purchase)

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 he 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

TECHNICAL SPECIFICATIONS FOR SPINNING DISK CONFOCAL MICROSCOPE

(I) Technical Specifications of Motorized Inverted Fluorescence Research Microscope:

S. No.	Specification	Essential/Desirable
1	Fully Motorized Inverted Fluorescence Microscope for BF/Fluorescence preferably with remote touch pad for controlling motorized components of the microscope.	Essential
2	Tiltable binocular / trinocular eyepiece.	Essential
3	Programmable linear encoded fast motorized X-Y scanning stage including sample holders for slides, 35/60 mm Petri dish, labtek chambers and multi-well dishes with multipoint, tile and mosaic imaging software (capable of fast 6D imaging).	Essential
4	Hardware & IR laser/LED Based Focus Drift compensation for long term live- cell imaging application is mandatory.	Essential
5	LED illumination for Fluorescence catering to the following fluorophores to be included. The imaging software should control the LED light source for fast sequential imaging of GFP/RFP with independent wavelength switching.	Essential
6	Band pass fluorescent filters for DAPI, GFP, Cy3, mCherry and Cy5.	Essential
7	Motorized 6-position nosepiece, Manual Condenser NA 0.5 or better, minimum 6-position fluorescence turret for accommodating fluorescent filters for sample visualization and camera based imaging.	Essential
8	High precision Z-focus drive with step size of 10 nm or better.	Essential
9	Plan super apochromat objectives - 40x/1.40 oil, 60/63x/1.42 oil immersion, 100X/1.45 oil, and confocal compatible lenses for 10X/0.40, Long Distance 20X/0.40 (WD 8 mm or better).	Essential (Lenses with equivalent features with justification will be considered)
10	Setup for long-term live-cell imaging including incubation system with temperature, CO ₂ and humidity control. The parameters for incubation system should be controlled by a software preferably with ability to record the temperature, CO ₂ level at periodic intervals of ~10 minutes or lesser.	Essential

**(II) SPINNING DISK SUPER-RESOLUTION CONFOCAL IMAGING UNIT WITH HIGH SENSITIVITY DETECTOR:
SUPER RESOLUTION IMAGING**

S. No.	Specification	Essential/Desirable
1	<p>Fully automated and motorized microlens based Spinning disc and Super resolution or equivalent attachment with suitable high sensitive sCMOS Camera/Detectors and Emission filters for the entire Vis Spectrum. The system should be second camera-ready. The system should be capable of Real time Super resolution i.e. generating super resolution image during image acquisition with a minimum XY resolution of 120 nm or better.</p> <p>The scanhead should have a built in 8 position fast emission filter wheel with emission filters for DAPI, FITC, TRITC, mCherry and Cy5 for fast two-color imaging for GFP & RFP.</p> <p>The system should be able to work in Super resolution (SR) mode. The scan head should be equipped with appropriate optical components to make the uniform field of view both for 1X and intermediate magnification lenses.</p> <p>The scan head should have a built in intermediate optical magnification for 2X or above. The switching between 1X and Intermediate magnification should be motorized and should be controlled with the imaging software. Widefield bypass mode as well.</p> <p>For live-cell imaging at standard and super resolution: The set up should not have any cross talk issues and limit the emission signal detected due to having a narrower band emission filters. The Offered system should not have any Realignment issues when the optical path is changed. A single Disk achieving the required scan speed of 4000 rpm and above with 200 fps or above will be preferred at a resolution of 512x512 pixels. The design of the 40/50 µm pinhole should ensure maximum confocality is achieved with the modern, commonly used, high NA 60x and 100x oil immersion objectives.</p>	Essential
2	<p>Detection based on high sensitivity sCMOS detectors. The sCMOS camera should be with minimum 95% Quantum Efficiency, 6.5µm x 6.5µm Pixel Area, 2048 x 2048 array - 4.2 Megapixel,, Read Noise 16e- (Median) 55000 e-Pixel Full Well, 35000:1 Dynamic Range, 43 fps USB 3.0 (12 -bit & 16-bit), 74 fbs CaoXpress (16 bit), Linearity better than 99.7%, Dark Current, e-/pixel/sec at -45 °C should be 0.1.</p>	Essential
3	<p>Emission filters options for the entire Vis spectrum should be available. All laser lines for confocal Imaging should be useable for imaging in SR mode, GFP/mCherry should be offered for two color fast sequential imaging. Suitable Primary DMs (405/488/561/640) in the scan head should be offered. Quote for dual band pass (GFP/RFP/mCherry) emission filter for faster two- color excitation sequential imaging.</p>	Essential

4	A Real-Time controller: The controller should provide parallel command execution for motorized components such as LED/Laser switching, shuttering, swift movement of filter wheel and Z movement during fast two color XYZ time lapse imaging. The device should support fast two color near simultaneous imaging using single camera with perfect overlapping of two colors. The process of closing the shutter and moving the filter wheels & Z steps should begin as soon as camera acquisition is done, during camera chip readout to avoid bleaching. Both filter wheel and laser/LED should switch/move in parallel to save time during two color imaging using single camera for perfect overlapping two colors during fast time lapse imaging (for vesicle tracking experiments).	Essential
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(III) LASER MODULES WITH AOTF/DIRECT MODULATION TO CONTROL ALL SOLID STATE LASERS:

S. No.	Specification	Essential/Desirable
1	488 nm, 565/561 nm, and 633/640 nm (or equivalent). All visible & UV lasers should be connected to the scan head and should be controllable for fast laser switching and attenuation. Laser lines should be 100 mW or better. The offered instrument should come with a multi-mode fibre illumination, beam shaping, and additional enhancement optics to deliver optimum illumination to laser-based multi-point confocal and widefield microscopy. It should provide exceptional illumination optimising coupling stability and efficiency, excitation throughput, imaging uniformity and spectral range with minimal power loss, and maintain high signal to noise ratio.	Essential
2	The system should have capability to accommodate lasers in the visible to Near-Infra red range.	Essential

(IV) SYSTEM CONTROL AND IMAGING SOFTWARE:

S. No.	Specification	Essential/Desirable
1	Software should be capable of controlling every component of the system including microscope, incubation system, confocal setup, super resolution module. Should be compatible for 3D, 4D, 5D and 6D imaging (X, Y, Z, t, multi-color, multi-point). Image stitching in co-ordination with XYZ stage.	Essential
2	FRET imaging as well as Quantitative data analysis. capability.	Desirable
3	Advanced 3D image reconstruction with rendering from a Z-stack image series including 3D Blind deconvolution capability in widefield, confocal and Super resolution deconvolution modalities (for all the three PSFs).	Essential
4	Co-localization and histogram analysis with individual parameters.	Essential

5	<p>Software for Tracking: Interactive processing and visualization and analysis software for 3D and 4D microscopic images. Featuring state of the art volume and surface rendering, object detection, tracking and cell division tracking tools.</p> <p>Software Package to automatically analyze moving objects which can divide over time, create a tree representation for the split tracks and get the quantitative information from their image data.</p>	Essential
6	Image acquisition and processing tools for SR images with various modes of visualization tools.	Essential

(V) COMPUTER AND MONITOR:

S. No.	Specification	Essential
1	<p>State of the art 64 bit control computer with minimum Intel dual quad-core Processor, ECC RAM 96 GB or more; 4x SSDs (8TB for images, 4 x 2TB) or better and upgradable to 16x SSDs with 4TB each or better, DVD, SuperMulti SATA +R/RW, Graphics: dedicated dual display with minimum 8 GB internal RAM, dedicated GPU for accelerated deconvolution, Gigabit Ethernet, Windows 10 64 bit or better, mouse with pad; USB 2.0/3.0, Fire wire. Large 34" LED-backlit LCD monitor or equivalent for controlling the entire system. The computer and all the provided license softwares should be upgradable and compatible to newer version of Windows.</p> <p>A secondary analysis computer with RAM 32 GB or better, 1x SSDs (2TB or more) along with 4x SATA (4 x 2TB or better) and upgradable to 4x SSDs with 2TB each or better, Intel 3 GHz core processor with 6 Cores or better, dedicated graphics card with minimum 5 GB memory capacity, DVD, SuperMulti SATA +R/RW, Gigabit Ethernet, Windows 10 64 bit or better, mouse with pad; USB 2.0/3.0, Fire wire. Large 34" LED-backlit LCD monitor or equivalent for controlling the entire system. The computer and all the provided license softwares should be upgradable and compatible to newer version of Windows, configuration for post image analysis and complete analysis license package to be included. Also with the secondary analysis computer, a reputable UPS with a back up of minimum 30 minutes should be provided.</p>	Essential

(VI) ACCESSORIES:

The bidder should supply the below items along with the machine.

S. No.	Specification
1	High-quality suitable vibration isolation table with silent automated compressor pump as follows: Anti Vibration Optical Table (should have a free space of ~ 1 feet or more surrounding the equipment post installation and functioning) comprising of the following: a) Optical Table Top: Optical bread board with stainless steel skin (~ 5 mm or more) with M6 individually sealed threaded holes with > 4 inch thick honeycomb based vibrational damping. b) Auto Leveling Pneumatic Vibration Isolators with compressor and leveling valves. The isolators together with table-top should present a workspace that is 3 feet from the floor.
2	True Online UPS system with isolation transformer for the entire system with minimum 1 hour backup.
3	100% CO ₂ Cylinders (2 in quantity) with regulators.

- a) **Training and demonstration:** Training on usage of the machine (hardware and software) must be demonstrated by the application specialist of successful bidder at bidder's cost to the end users at IISER Mohali. The application specialist of the successful bidder has to provide additional trainings in the initial two years.
- b) The system should be supplied directly by the principal manufacturer/Authorized distributor as turn-key system. All the components in the system viz. microscope, lasers, confocal unit and camera should be responsibility of the Primary Supplier including Third Party Components.
- c) **Warranty:** The complete Spinning disc confocal microscope system is to be under comprehensive warranty period of minimum 5 years including preventive maintenance, free supply of consumables, spare parts including lasers and data analysis software from the date of functional installation. The software should be updated as and when these updates are available. If the instrument is found to be defective, it has to be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISER Mohali. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.
- d) **Annual Maintenance Contract: An optional Annual maintenance contract for a period of 2 years should be quoted on completion of comprehensive warranty period.**
- e) **Delivery and Installation:** The bidder shall provide the lead-time to delivery, installation and to be made functional at IISER Mohali from the date of receipt of purchase order. The system should be delivered, installed and made functional within 180 days from the date of receipt of purchase order. The installation of the system will be considered fulfilled only on satisfactory and complete installation of the system by engineers from the principal manufacturer and demonstration of live-cell imaging on this system and complete training of all features/capabilities of the system to the end-users from the principal manufacturer's application specialist. After successful installation, training completion and inspection, the date of taking over of the entire system by IISER Mohali shall be taken as the start of the warranty period.