



# 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 (1435)20/21-Pur

Dated: 03<sup>rd</sup> March 2021

## **NOTICE INVITING E-TENDER**

Online tenders are invited on behalf of the Director, IISER Mohali in **TWO BID SYSTEM** for the **Supply, Installation and commissioning of Live-Cell Imaging System with an integrated deconvolution facility** 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](http://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.**



# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

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## **E-TENDER NOTICE**

Tender Ref.- IISERM(1435)20/21-Pur	Dated :- 03 <sup>rd</sup> March 2021
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### **Critical Date Sections**

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	03 <sup>rd</sup> March 2021	6:00pm
2.	Tender Document download start Date & Time	03 <sup>rd</sup> March 2021	6:00pm
3.	Bid Submission start Date & Time	03 <sup>rd</sup> March 2021	6:00pm
4.	Bid Submission End date and Time	24 <sup>th</sup> March 2021	Upto 11:00am
5.	Tender opening Date and Time	25 <sup>th</sup> March 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](http://www.iisermohali.ac.in). Tender fee in shape of DD/Banker Cheque of Rs 590/- (Non-refundable) and EMD of Rs.2,02,000/- 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. **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.**

**MSME/NSIC bidders are exempted from payment of Tender Fee/EMD as per GOI notifications/GFR (2017). 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 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.**

## **ITEM WISE DETAILS**

Sr.	Description	Qty. (in units)
1.	<p data-bbox="260 271 1412 349"><b>Supply, Installation and commissioning of Live-Cell Imaging System with an integrated deconvolution facility</b></p> <p data-bbox="260 412 655 450"><b><u>Technical Specifications:</u></b></p> <p data-bbox="260 465 1366 504"><b>Specifications for a Live-Cell Imaging System with an integrated deconvolution facility</b></p> <p data-bbox="260 528 1412 680">Dedicated fully automated opto-digital system for high resolution live cell imaging for 3D biology studies. The system should have completely integrated setup for real time 3D high resolution imaging based on real time computational clearing, structured illumination or equivalent technique to remove noise as well as haze for high S/N images for regular tissue sections, live cell &amp; thick brain sections of minimum 150 micrometer or better.</p> <p data-bbox="260 696 504 734"><b><u>A. MICROSCOPE:</u></b></p> <ol data-bbox="284 759 1396 1160" style="list-style-type: none"> <li>1. Inverted microscope with 10x eyepiece with diopter adjustment.</li> <li>2. position motorized nose piece.</li> <li>3. 10X/0.4NA, 40X/0.6NA, 40x0.95NA, 60X/1.42NA plan apo (oil phase and DIC) and 100X/1.45NA or above plan apo (oil phase and DIC), or better plan-apochromat class objectives suitable for brightfield/phase contrast fluorescence observation.</li> <li>4. DIC optics: DIC condenser and Nomarski prism for 40x, 60x, and 100x objectives. Should automatically disengage all DIC components including objective prisms from light path in fluorescence mode.</li> <li>5. The microscope parts, stage and the camera should be controlled by company's own software with all the above components factory integrated into the software for a seamless performance.</li> <li>6. The system should have inbuilt touch screen for controlling the motorized components of the microscope like light path, objectives and fluorescence filters. Inbuilt focus knobs on both sides and dedicated joystick for xyz control.</li> </ol> <p data-bbox="260 1176 523 1214"><b><u>B. ILLUMINATION:</u></b></p> <p data-bbox="260 1238 1161 1274">Illumination tower having optimized illumination path with the following features:</p> <ol data-bbox="284 1267 1374 1509" style="list-style-type: none"> <li>1. Bright field illumination: Long life white light LED with lifetime of minimum 20000 hours or better.</li> <li>2. LED /Laser illumination for fluorescence with minimum 8 or higher solid-state LEDs/Lasers for 395 nm, 438 nm, 475 nm, 511 nm, 555 nm, 575 nm, 635 nm and 730 nm excitation with TTL trigger capability. Should be controlled by imaging system software. Should offer lamp life of minimum 10000 hours or better.</li> <li>3. The illumination source should be factory integrated with company's own software without any third-party software.</li> </ol> <p data-bbox="260 1525 432 1563"><b><u>C. FILTERS:</u></b></p> <ol data-bbox="284 1588 1337 1680" style="list-style-type: none"> <li>1. Pixel shift corrected band pass filters for imaging DAPI, GFP, TRITC and mCherry.</li> <li>2. Additional polychroic filter to minimize time lost in changing filters and precision overlap of images</li> </ol> <p data-bbox="260 1695 440 1733"><b><u>D. CAMERA:</u></b></p> <ol data-bbox="284 1758 1295 1942" style="list-style-type: none"> <li>1. sCMOS monochrome camera with Maximum field of view – 2040 x 2040 imaging array.</li> <li>2. 6.5 um and 6.5 um pixels.</li> <li>3. 16 – bit dynamic range</li> <li>4. QR minimum 80% or above</li> <li>5. Fast acquisition of minimum 40 fps or better at full frame.</li> <li>6. Spectral coverage from 390 nm to 900 nm or better</li> </ol> <p data-bbox="260 1966 994 2002">Also quote an alternative camera with the following specifications:</p> <ol data-bbox="284 1995 1316 2119" style="list-style-type: none"> <li>1. Back-illuminated sCMOS Camera with 95% or above QE and with 6.5um pixel size with a maximum resolution of 2048 X2048 pixels.</li> <li>2. The camera should have built trigger inputs and a frame rate of 60-100FPS at full frame.</li> <li>3. The camera should be controlled by the same imaging software for fast multi-dimensional imaging</li> </ol>	1

applications.

#### **E. STAGE:**

1. The system should have a high precision motorized X, Y stage and Z axis with capability to image 35mm culture plates, conventional slides and multi well plates.
2. Focusing range 12 mm, automated: Stage travel 106 mm x 70mm.
3. Maximum stage speed: 60 mm/sec in x/y; resolution 0.02um, z: repeatability 0.02 um: minimum step size Z 0.005 um or better.
4. Should be capable of panel collection with high precision to enable researcher to stitch multiple high magnification images into a single image without individual image manipulation.
5. Stage should accept slides, 35 and 40mm dishes, chamber slides and multiwell plates.

#### **F. COMPUTER:**

The microscope should be supplied with a workstation for image acquisition and processing with the following minimum computer specifications:

1. CPU intel Core i7 4770S processor
2. CPU speed 3.1 GHz.
3. RAM 32 GB 1600 MHz DDR3.
4. OS hard disk 256 GB SSD
5. data drive 3 x 1 TB onboard RAID5 array
6. Video card PNY NVIDIA QUADRO P400 GB
7. Network interface 2 x Gigabit ethernet.
8. USB 4 x USB 3.0, 4 x USB 2.0
9. optical drive integrated DVD-RW drive.
10. Operating system 64 bit Windows 10 professional

Also quote another work station with the following minimum specifications:

1. Xeon core processor, 32 GB RAM or better; 4 TB HDD, 0.5 TB SSD; 64-bit OS; high resolution 24-inch display; 4GB NVIDIA GPU card. One online computer integrated with the microscope and one offline computer of the same configuration for image processing.
2. 3kVA UPS for all components of the microscope and controlling computer.
3. System should also be capable of integrating the laser onto the software quoted and all necessary components or hardware should also be included in the offer as standard

#### **G. SOFTWARE**

The software should be owned by the company and should control all the computer controlled / motorized components of the system with the following features:

1. Interactive system control with sophisticated multidimensional data acquisition visualization, analysis, image restoration, image correction and image viewing management.
2. Data acquisition must have features like time lapse, 3D stack, multi-channel acquisition, FRET, Colocalization, 3-D view rendering.
3. The software must be capable of generating real-time high-quality images using computational techniques or structured illumination hardware in small organisms like yeast and bacteria, mammalian cells at the same time thick samples like brain sections and embryos upto a thickness of 100 microns or better.
4. The vendor shall be asked to demonstrate usability of the system for the experiments in H.

#### **H. APPLICATIONS:**

The microscope should be capable of imaging a variety of samples - Live-cell and immunofluorescence imaging of yeast/fungi (e.g. *Saccharomyces*, *Schizosaccharomyces*, *Candida*) and protozoans without bleaching weak signals,

1. Fluorescent proteins with time,
2. Colocalization of proteins in the cells,
3. Thick samples like brain drosophila embryos
4. FRET
5. Multi point imaging
6. Contrast – based auto focus.
7. Motorized mosaic overview of the imaging area.
8. Software-based centering of the cell of interest to the center of imaging field.
9. The company shall be asked to arrange imaging of representative samples / specimens from experiments by the end user in points # 1-8 in any of the facilities in India where the quoted facility is in use. The outcome of this exercise will be considered as a key component of the

technical comparison and analysis, failing which the bid shall be rejected.

**I. INCUBATION:** Separately quote complete attachments and accessories required to upgrade the quoted system for live cell imaging, heated platform for imaging samples under controlled temperature, and imaging of cultured mammalian cells under controlled conditions of temperature and CO<sub>2</sub>.

**J. ADDITIONAL CONDITIONS:** Vendors quoting combinations of self-manufactured and third party-sourced items, such as camera / light source, will be expected to integrate all hardware and software for instrument control / data acquisition / analysis before supply of the workstation. Vendors will be expected to demonstrate all features in compliance with specifications during installation. Vendors will also be expected to demonstrate functioning of the workstation for the experiments mentioned in point 9. Also, vendors must provide original catalog of their system and a compliance statement for each specification point.

**K. TRAINING AND WARRANTY**

1. 5 years complete system warranty
2. On-site installation and training
3. The above-mentioned technical specifications are highly desirable. However, lower technical specifications may be considered if the above-mentioned specifications are found to be unsuitable in financial terms.
4. The Institute reserves the right to go for the lower specification of the camera taking into considerations its financial constraints and technical preferences.

**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. The bidder required to declare on the letter head the percentage of Local content for the quoted instrument and submit with the Technical Bid..**
- II. **The online updated Price BOO is in INR format.**
- 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.

#### A) **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 @ 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.
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–  
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.*