भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास 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 Human Resource Development, Govt. of India)

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

PAN No. - AAAAI1781K GSTIN 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 (1335)19/20Pur Dated: 06th February 2020

NOTICE INVITING E-TENDER

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** for the **Supply and installation of Wide field Fluorescence Microscope Workstation 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)

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास 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 Human Resource Development, Govt. of India)

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

PAN No. - AAAAI1781K GSTIN No:- 03AAAAI1781K2ZS

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

E-TENDER NOTICE

Tender Ref.- IISERM(1335)19/20Pur	Dated :- 06th February 2020

Critical Date Sections

Sr.	Description	Date	Time
1.	Tender Publishing Date and time	06th February 2020	6:00pm
2.	Tender Document download start Date & Time	06th February 2020	6:00pm
3.	Bid Submission start Date &Time	06th February 2020	6:00pm
4.	Bid Submission End date and Time	27th February 2020	Upto 11:00am
5.	Tender opening Date and Time	28th February 2020	At 11:30am

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** {Technical and commercial separately} for the 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. 2,50,000**/- 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 summerly.

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 Details: -

Sr.	Description	Qty. (in units)
1.	**Supply and installation of Widefield Fluorescence Microscope Workstation** **Technical Specification** **WIDEFIELD FLUORESCENCE MICROSCOPE WORKSTATION** **A computer-controlled widefield fluorescence microscope workstation** with the following features and technical specifications: **1. Hardware:** Ergonomically designed inverted microscope including the following features: a) 10x eyepieces with diopter adjustment. b) 6 position motorized nose piece. c) Objectives: 10X/0.4NA, 40X/0.6NA, 60X/1.42NA and 100X/1.4NA, or better plan-apochromat class objectives. Working distance should be 0.15 mm or better for 60x and 0.13 mm or better for 100x objective. d) DIC optics: DIC condenser and Nomarski prism for 40x, 60x and 100x objectives. e) The system should have a high precision motorized X, Y stage and Z axis with capability to image 35 mm culture plates, conventional slides and multi well plates. f) The system should be controlled by software as well as joystick. g) The system should have a control panel for acquisition parameters like marking points in multi-point imaging, controlling bright field and fluorescence shutter, changing the fluorescence filter, snapping image, stage control. **2. Illumination:** Special illumination tower having optimized illumination path with the following features: a) Bright field illumination: Long life white light LED with lifetime of more than 50000 hours. b) Fluorescence Illumination: Fluorescent solid-state illumination with instant on-off (150 µs) mechanism and 7 wavelengths in the range - 381-399, 426-450, 461-489, 505-515, 529-556, 563-588, 621-643 nm to cover the entire imaging spectrum. c) Wavelength switching should be in the speed of 100 µs or better. d) With motorized automatic switching from Koehler to Critical illumination in fluorescence mode without any user intervention. The system should be in Koehler illumination during visual observation through eyepieces and automatically switch to critical illumination after the light path is switched to camera and imaging starts. e) Optimized light delivery through 1 mm fiber optics that generates a concentrated and uniform/homogeneous illumination which does not bleach weak signals. f) The illumination source should be factory integrated with company's own software without any third-party software. **3. Oil matching kit:** a) An oil set with oils of different refractive indices should be provided for spherical aberration correction and match the Refractive Index (RI) of the sample and mounting materials. **4. Fluorescence filters and filter wheels:** a) Fluorescence filters should be Polychroic so that there should be no moving filter turret to minimize time lost in changing filters and ensure precision overlap of images. b) Switching time between adjacent emission filter positions should be less than 100 ms.	**01**

5. Camera:

a) PCO Edge 4.2 sCMOS detector.
b) Maximum field of view - 2040 x 2040 imaging array.
c) 6.5 µm x 6.5 µm pixels.
d) 16-bit dynamic range.
e) 80% or more quantum efficiency.
f) 272.3 MHz readout speed.
g) 0.9 (median) / 1.4 (rms) e-readout noise.

6. Stage:

a) The stage position should be encoded with respect to the fixed Z position objective lens. The stage should be calibrated and qualified using its internal absolute position encoders.

b) Each motor (X, Y and Z) should moves independently of the others to ensure linear motion in each axis for repeatable imaging.

c) Stage Specifications measured at focal plane (field of view).

d) Microscope Optical resolution: 200 nanometers X, Y; 500 nanometers in Z: Focusing range 7 mm, automated: Stage travel 106 mm x 70 mm.

e) Maximum stage speed: 50 mm/sec in x/y; repeatability 0.2µm: 20 mm/sec in z: repeatability 0.2 µm: Minimum Step size XYZ 0.01 µm.

f) The microscope should have panel collection with high precision stage to enables researcher to stitch multiple high magnification images into a single image without individual image manipulation.

g) Stage should accept slides, 35 and 40mm dishes, chamber slides and SBS format plates.

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

a) CPU Intel® Core™ i7 4770S processor.
b) CPU speed 3.1 GHz.
c) RAM 32 GB 1600 MHz DDR3.
d) OS hard disk 256 GB SSD.
e) Data drive 3 x 1TB onboard RAID5 array.
f) Video card PNY™ NVIDIA® Quadro™ P400 2 GB.
g) Network interface 2 x Gigabit ethernet.
h) USB 4 x USB 3.0, 4 x USB 2.0.
i) Optical drive Integrated DVD-RW drive.
j) Operating system CentOS™ 7 or higher.

8. 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:

a) Interactive system control with sophisticated multidimensional data acquisition visualization, analysis, image restoration, image correction and image viewing management.

b) Software for camera control.

c) Data acquisition must have features like time lapse, 3D stack, multi-channel acquisition, 2D deconvolution.

d) Software must have a quantitatively validated deconvolution solution generating accurate measure of sample fluorescence through a constrained iterative or image restoration algorithm. The algorithm should not be subtractive and the optical transfer

function (OTF) used for deconvolution should be calculated on the system.

9. Experiments: The microscope should allow/permit the following types of experiments. The vendor shall be asked to demonstrate usability of the system for these experiments (see points 10,12&13).

a) Live-cell and immunofluorescence imaging of yeast/fungi (e.g. *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, Candida) and metazoans without bleaching weak signals.

b) Tagged proteins' localization over time in above organisms.

c) Colocalization studies with above organisms.

d) 3-D rendering of the images.

e) FRET analysis.

f) Multi point imaging

g) Contrast-based auto focus.

h) Stage repositioning feature for keeping moving cells in the field.

i) Motorized mosaic overview of the imaging area.

j) Software-based centering of the cell of interest to the center of imaging field.

10. The company shall be asked to arrange imaging of representative samples/specimens from experiments by the end user in point-9 (a-j) 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 analysis failing which the bid shall be rejected.

11. Separately quote complete attachments and accessories required to upgrade the quoted system for imaging 96 well plates, heated platform for imaging samples under controlled temperature, and imaging of cultured mammalian cells under controlled conditions of temperature and CO_2.

12. 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/analyses 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.

13. User list: The vendor should provide a list of institutes/laboratories in India where their system is in active use. The vendor should also provide username / address / phone no. / email ID for communication/feedback.

14. Warranty: (i) The complete assembly should have a warranty of 3 years from the date of installation. (ii) Also, separately quote for 2 additional years of CMC and AMC. The company should be able to supply hardware accessories and software updates at least for the next 10 years.

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.

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. **Kindly do not quote end of life model.**

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.

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 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)