

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

NIT No. :IACS/OCJD/2022-23/29

Date: 17.08.2022

Sealed tender in two bids system (Technical bid and Price bid) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for **Fluorescence Microscopy**.

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelope, that should be sealed and superscribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Completed tender bids should reach the office of the **Registrar, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata-700032** on or before the scheduled date and time specified below:

Tender Notice No.	IACS/OCJD/2022-23/29, dt.17.08.2022
Last date and time of submitting tender	23/09/2022, within 3.00 PM
Pre-bid meeting(date, time & place) to discuss technical specification	30/08/2022, 2.30 PM (Room No. 107A, Main Building, IACS)
Date and time of opening tender (Technical Bids)	26/09/2022, 2.30 PM
Place of opening tender	Room No. 107A, Main Building, IACS
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Email: ocjd@iacs.res.in Tel.+91 33 2473 4971 [Ext 1405]

The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

The equipment is estimated to cost of Rs. 47,00,000/-

(This estimate however is mentioned merely as rough guide and indicative)

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly superscribed as 'TECHNICAL BID' on the outer cover of the envelop as already detailed above. **It should be clearly mentioned on the envelope as "Technical Specification for Fluorescence Microscopy"**.

Tender specifications for Fluorescence Microscopy

S.No.	Name	Specifications
1.	Microscope stand	Fully motorized inverted Microscope stand with apochromatically corrected fluorescence beampath, integrated Light Intensity Manager and Contrast Manager for bright field applications and dedicated TFT/LCD display for convenient operation and control of the microscope. The microscope should have one or more camera ports. In built Motorized Z-focus drive with a minimum step resolution of 10 nm or better .
2.	Stage	Mechanical stage with universal specimen holder for slides, different sizes of Petri-dishes and multi-well plates, travel range of 130x85
3.	Eye Piece	Paired wide-field focusable 10X eye-pieces with FOV 23 or better and adjustable diopter setting of minimum +/-5. Observation tube inclined at 45 degree.
4.	Transmitted Illumination	High Intensity LED equivalent to 100 Watt Halogen or 100W (Halogen light source with fully motorized control of transmitted Illumination. Fully motorized transmitted light axis with fast (specify speed) motorized shutter for Multi-dimensional Imaging.
5.	Light Attenuators	Motorized ND filters turret of 6 positions or better for intensity regulation
6.	Motorized Condenser	Motorized, Universal Achromatic-Aplanatic condenser with a N.A of 0.55 or better (with integrated polarizer) for Ph, DIC, BF, DF; preferably with 6 position turret disks. Motorized condenser should work for all objectives.
7.	Objective Nosepiece	Minimum 6 position motorized objective DIC

		nosepieces or better, preferably with faster movement.
8.	Objectives	High N.A, high light transmission efficient Plan Achromatic or Semi Plan Apochromat Objectives for BF, fluorescence and DIC application: Plan-Neofluar 10x/0.3 M27 (WD=5.2) Plan-Apochromat 20x/0.8 M27 (WD=0.55) Plan-Neofluar 40x/0.75 M27 (WD=0.71) Complete motorized DIC accessories 63x should be included in main quote.
9.	Fluorescence Attachments	Motorized Fluorescence illumination and operation. Beam Path should be Completely Apochromatically corrected.
10.	Reflected light Illumination	Fluorescence attachment with 120W Metal Halide Illuminator including built in power supply, lamp module, infrared filter and CAN bus cable. Fluorescence light source with integrated motorized shutter control.
11.	Reflector Turret for Fluorescence Filters	Motorized 6 position reflector turrets. All the filters should be shift free.
12.	Filters	High quality Band Pass (BP) Fluorescence filters for imaging of DAPI, GFP, RFP should be quoted
13.	Camera	High resolution, scientific grade, 5MP CMOS monochrome camera with 3,45µm pixel size Frame rate 36fps @ full resolution, USB 3.0 interfaces
14.	Optical Sectioning Module	Structured Illumination through grids with Automatic Grid Change Technology for optical sectioning preferably with higher light transmission efficiency. A special grid illumination device to be incorporated in the FL illumination optics of the microscope with easy switch over facility between normal FL illumination and grid illumination (for optical sectioning). Motorized and automatic grid focusing and superimposition of the same into the image plane for different fluorescence channels through accurate and calibrated scanning mechanism should be possible. Automatic multidimensional acquisition of optical sections. Seamlessly integrated hardware and software from the same manufacturer for better compatibility. Optical sectioning module should be factory inbuilt with the microscope and should be provided by

		same manufacturer. Objective specific selection of different Grid frequencies to match the numerical aperture of the objective and wavelength of fluorescence for multi channel imaging should be automatic.
Software		
15.	System Control	Automatic and interactive Microscope control as well as optical grid by single software.
16.	Image Acquisition	Should be able to (but not limited to) image capture, movie acquisition, fast acquisition Automatic Multichannel Image acquisition, ROI imaging, Z stack acquisition, time lapse. Optical sectioning. Retaining of acquisition parameters for re-use should be possible.
17.	Image Processing	Basic adjustment of brightness, contrast and gamma; adjustment of color in BF images; correction of bleaching effect in Z stack images; pixel shift correction; Image smoothening, Image Sharpening.
18.	Image Analysis & Documentation	Interactive and basic measurement such as Length, Angle, diameter, Area, Perimeter Gray value measurement along a line / Intensity measurement. Statistical analysis and evaluation of Data. Creation of User defined reports
19.	Z-Stack	Module for acquiring Z-stacks with the help of a motorized focus drive.
20	Computer/ Workstation	A suitable High End Computer System should be provided along with the system of following configuration: Intel Core i5/i7, 64 GB RAM, 2 TB HDD, 256GB SSD, 2 GB NVIDIA graphics card, Windows 10 Pro OS. 24 inch LED/TFT monitor with keyboard and mouse.
21.	Service Facility	Looking after long term service support/after sales support, preference would be given to single manufacturer(OEM). Suppliers using multiple OEM / third party items would be less preferred. Suppliers with valid CE, ISO certificates would be preferred. Single party source for Microscope, Camera, Optical sectioning attachment and software for better integration.
22.	Warranty	One year warranty from the date of installation of the equipment with lifetime support.

23. The vendors should have successfully installed at least 5 systems of the same platform in India with institutes of high repute. User's list and contact details should be provided.

A compliance table (see below) must be prepared and submitted along with the technical bid.

Sr. No	Tender specification	Your offered instrument specification	Extent of compliance

2. PRICE BID:

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly superscribed as 'PRICE BID' on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be intimated the date and time of the opening of price bid at their e-mail ids. Rest of the bidders will stand rejected.

PRICE: Price to be quoted on CIF Kolkata and also FOB basis.

3. BID SECURITY:

a. An Account payee Demand Draft/Pay Order of any of the Nationalized Banks for Rs. 1,50,000 (Rupees One lakh fifty thousand only) drawn in favour of "Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)" is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). Alternatively, the Bidder shall have the option to furnish the EMD in the format of Bank Guarantee (BG).

b. The Demand Draft for the Bid-Security should have at least 90 (ninety) days validity period of opening of the bids.

c. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

4. PERFORMANCE SECURITY:

An Account Payee Demand Draft on any nationalized bank of India of 10% of the order value in the name of "Indian Association for the Cultivation of Science" is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier

including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the Performance security money.

5. TERMS OF PAYMENT:

Payment will be made through irrevocable Letter of Credit in two instalments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

6. GENERAL INSTRUCTIONS:

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall be lapsed by mutual consent.
2. The tender should accompany a compliance chart.
3. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
4. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally to visit the website (www.iacs.res.in/tender) for any amendment.
5. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
6. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers who are responsible for after sales support. Response time should be within 24 hrs.
7. The model number, make and a printed literature of the product should be submitted positively.
8. Proposed delivery schedule should be mentioned clearly.
9. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.

11. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
12. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
13. In case of any dispute, the decision of IACS authority shall be final and binding on the bidders.
14. For any clarification regarding technical specifications, information etc., please send your queries to **Prof. Jyotirmayee Dash** (ocjd@iacs.res.in).
15. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar