

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

NIT No. : IACS/SMCS/RP/22-23/57

Date: 16/01/2023

Sealed tender in two bids system (technical bid and price bid) is invited from the bonafide, resourceful, and eligible manufacturer/exclusive distributor/vendors for **Phase contrast inverted microscope with high end camera attachment**.

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 on 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.	NIT No. Date: 16-01-2023
Last date and time for submitting tender	31.01.2023 before 17:00 hrs
Pre-bid meeting date, time to discuss technical specification	20.01.2023 at 15:00 hrs
Date and time of opening tender (Technical Bids)	06.02.2023 at 03.00 PM
Place of opening tender	Roy Chowdhuri Hall, 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: ssprp@iacs.res.in Tel.+91 33 2473 4971 [Ext 1310]

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 and price bids.

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.

A. 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 envelope as already detailed above. It should be clearly mentioned on the envelope as "**Technical Specification for Phase contrast inverted microscope with high end camera attachment for Prof. Raja Paul**".

Technical specification:

1. Inverted Microscope stand with quadruple revolving nosepiece or better
2. Transmitted high contrast long life LED illumination with constant color temperature of 4000K or better
3. Suitable for bright field and phase contrast microscopy with Advanced Phase contrast IPC technology or better.
4. Optical system must be infinity corrected for maximum S/N ratio and best optical performance from UV to near-infrared wavelength.
5. Dedicated user-friendly front operation for Light Intensity, On/off switch, Coarse & Fine adjustment knob, vertical nosepiece movement, stage should be fixed, Stroke per rotation should be 38 mm (coarse) or better, 0.2 mm (fine) or better.
6. Frame should have filter holder position for Neutral Density and green filter for phase contrast. Frame must be compatible to view multilayer Tissue flask with high adjustment of 190 mm or more.
7. Microscope Frame should be compatible with cell culture hood under UV light.
8. System should have provision to upgrade to 3D Image view with 10X objective and full colony count by using low power objective 2X or better. System should be capable of doing 3D imaging inversion technology.
9. Observation Tube: Trinocular observation tube with interpupillary distance adjustment of 48-75 mm or better, (Wide Field, Field of View 22 or better). Inclined angle 45 degree or better. Light division 100: 0 and 0: 100% for Eyepiece and camera path.
10. Mechanical Stage: Universal Holder for multi sample holder and X & Y Mechanical Stage with right hand drive control along with acrylic transparent scratchproof plate holder. Stage movement should have X=110mm,Y=74 mm or better.
11. Condenser: Slider Long Working Distance Condenser with BF/Ph, N.A. 0.3 and W.D. 70 mm or better.

12. Eyepieces: Widefield paired eyepieces 10X (F. N. 22) or better.
13. Objective: Plan Achromate phase objective 10X/0.25, W.D.10 mm, Long working distance achromate phase 40X.NA 0.60 with correction ring, Plan Achromate 100X phase oil objective, NA 1.25 or better
14. High quality Interference Green Contrast Filter, dust cover
15. Camera and software attachment:
 - (a) CMOS, Sensor Size 1/2.5-inch, Resolution (max) 2160 × 1620 pixels or better, 1920 × 1080 pixels (full HD 16:9) or better, 1296 × 972 pixels (fast mode) or better, Pixel Size 2.64 × 2.64 μm or better, A/D Converter (Bit Depth) 10-bits or better, Exposure Time 25 μs-1.5 s or better, Live Frame Rates Up to 19 fps at 2160 × 1620 pixels (full resolution) or better, Up to 25 fps at 1920 × 1080 pixels (full HD) or better, Up to 40 fps at 1296 × 972 pixels (fast mode) or better, Data Transfer USB 3.1 Gen1 Type-C or better. Imaging Software should at least have Bright-Field, Phase Contrast, Polarizing, Dark Field, applications.
 - (b) The software should have features:
 - for camera control including RGB/Grey Scale, White balance, Focus indicator, adjust display, toggle bit depth, gain, exposure compensation, ROI etc.
 - Intuitive icon-driven image acquisition workflow
 - Automatic exposure, live and captured images, adjustment of exposure time, setting resolution and input comment in image.
 - Calibration feature for quick spatial calibration.
 - Image enhancement features, mirror image, pseudo color, shading correction, shading correction, zoom, unzoom, etc.
 - Image processing features such as enlarging and reducing the image size, annotations, drawing, arrow, circle, free handed etc.
 - Measurement features are included.

Warranty: The system should come with 3 year of warranty. Three years comprehensive on-site warranty for all components, including Parts, Labor and Support. The warranty period will commence from the date of certification of successful installation of the equipment.

Important Instructions:

- i. **Vendor Eligibility:** The bids must be submitted by OEMs or OEM supported single vendors only with original authorization certificates from the OEMs. Vendors should have proven experience in setting up such high microscope. Part Quotation by a vendor is not admissible as future warranty and maintenance are difficult in the cases of fragment purchases. The OEM/OEM-supported vendor should have their own office and service center in Kolkata with technical know-how to troubleshoot requirements. Subleasing of service/technical support by OEMs or OEM supported vendors is not admissible. The response time should not be more than 24 hours/next working day.
- ii. **Demonstration:** Technical bid evaluation may require demonstration of the quoted system by the vendor.
- iii. **Installation and Commissioning:** Free of cost at IACS, Kolkata. The vendors are required to give an estimate of the time required for installation, fine-tuning of the cluster and hand-holding/training of the principal users in the technical bid.
- iv. **Training:** Free training on operation, maintenance and troubleshooting of the whole setup should be provided at the site of installation.

- v. **Compliance List:** The vendor must submit a table indicating the compliance of the features of the model of the components being quoted with those given in the indent. In case of non-compliance against a particular item, the vendor should justify that.
- vi. **Post-sale service:** The vendor must submit the names of the service engineers employed by them who are competent to serve the equipment installation along with their contact details in India.

****Please Note:** The decision of the Technical Committee on technical competence and eligibility of any technical bid submitted by any vendor would be final and cannot be contested.

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

Tender will not be accepted if the technical compliance chart is NOT provided following the above format.

B. 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 super scribed 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 INR.

C. BID SECURITY

a. An Account payee Demand Draft/Pay Order of any Commercial Bank for Rs. 20,000 (Rupees twenty thousand only) drawn in favor 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 along with Technical Bid except those who are registered with the Central Purchase Organizations, Department of Micro, Small and Medium Enterprise (MSME), 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 about 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.

D. PERFORMANCE SECURITY

An Account Payee Demand Draft of any commercial bank of India for 3% 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.

E. TERMS OF PAYMENT

Payment will be released after successful installation of the instrument.

F. 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 a possible pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally visit the website (<http://iacs.res.in/tenders.php>) 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 bidding on the bidders.
14. For any clarification regarding technical specifications, information etc., please send your queries to

Prof. Raja Paul, ssrp@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.

16. The courts of Kolkata would have jurisdiction over any legal issue arising out of this tender notice.

Registrar