

CENTRE FOR RURAL DEVELOPMENT AND TECHNOLOGY

INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS, NEW DELHI-110016

Dated: 27.12.2012

Notice Inviting Quotations

A sealed quotation in separate envelopes of technical and commercial bid kept in one sealed outer envelope, are invited for “**Inverted Fluorescent Microscope**” as per specifications given below. Your sealed quotation should reach **within 15 days** from the date of advertisement to **Dr. Anushree Malik, Centre for Rural Development and Technology, Indian Institute of Technology, Delhi (IIT Delhi), Hauz Khas, New Delhi-110016**. Your quotation must be super-scribed “**Quotation for Inverted Fluorescent Microscope**”.

Technical specifications for inverted fluorescence microscope

1. Microscope Body : Inverted Microscope with Infinity optical corrected optical system,
Having two Camera Ports on left and right side of Microscopy body.
 - a. Should have **12V 100 W** Halogen lamp for illumination.
 - b. Condenser should be **Universal long working condenser** for bright field, DIC and Fluorescence applications.
 - c. Nosepiece should be at least **Sextuple revolving nosepiece** to accommodate six objectives at a time.
 - d. Eye piece **10x (with wide F.O.V., more than 20 mm)**, Should have diopter adjustment facility on both eye.
 - e. Rectangular XY Mechanical Stage.
 - f. Imaging should be obtained simultaneously in microscope as well as desktop screen from at least one of the camera ports.
2. Objectives: High performance Extra Long Working Distance Chromatic aberration free infinity corrected (CFI) Objectives
 - CFI Plan Fluor 10X N.A 0.30, W.D 15.20 mm suitable for bright field, DIC and fluorescence
 - CFI ELWD Plan Fluor 40X N.A. 0.60, W.D 3.6-2.8mm with correction ring, suitable for bright field, DIC and fluorescence
 - CFI Plan Apo chromatic 100X oil immersion N.A 1.40, W.D 0.13mm with stopper suitable for bright field, DIC and fluorescence techniques
3. Fluorescence attachment should have at least 6 position turret filter block and fluorescence illumination should be at least **120W** Pre-centred mercury illumination having lamp life of 2000hr or more.
4. Filter mirror for DAPI / HOECHAST / SYTOX BLUE, FITC / SYTOX GREEN, TRITC / PROPIDIUM IODIDE / RHODAMINE
5. DIC attachment at 10x, 40x and 100x Objective.

6. Digital CCD MONOCHROME Camera :-

- Digital mono cooled camera capable of handling very low light fluorescence images,
- 2/3" ccd chip, 1.50 million (1392x1040)
- Quantum efficiently > 60%
- Digitization :- at least 12 bit
- Total pixel resolution (1.45 net),
- pixel size of 6.45um x 6.45um,
- binning mode : 2x2, 4x4, P
- Peltier cooling to 10°C below ambient
- linear full well capacity of 17,000e⁻,
- readout noise 8 e⁻,
- exposure time 1ms to 600 seconds,
- Fire wire port for attaching camera onto desktop through single wire.

DIGITAL CCD COLOR CAMERA

- Digital scientific grade color camera with C-mount
- 2/3" high density CCD chip,
- Approx. 5 million pixel resolution.
- Digitization :- at least 14 bit
- Live display mode, binning modes : 2x2, 4x4
- digital zoom : upto 16x (8 steps)
- more than 20 fps
- Interval shooting: 5 sec. – 12 hr intervals.
- Software should be comes along with camera for acquiring & capturing of images.
- Fire wire port for attaching camera onto desktop through single wire.
- The Monochrome and Color camera should work simultaneously with one control.

7. IMAGE ANALYSIS SOFTWARE HAVING FOLLOWING FEATURE- Licensed

- Acquisition and device control through four dimensional acquisition (i. e X, Y, Z, Lambda, Time, Multipoint can be selected),
- Image Acquisition,
- Automatic measurement,

- Auto counting,
 - Intensity profile
 - Live Image capture,
 - Time-lapse image capture,
 - Z-series image capture,
 - Multipoint image capture,
 - Multichannel image capturing,
 - AVI live-stream capture,
 - Objective calibration
 - Capturing data saving and report generator facility,
7. All cables/ power-cords/ adapters required for operation should be provided
 8. Microscope, Fluorescence attachment, camera and image analysis software should be from same manufacturer for better compatibility and future upgradability.
 9. The Microscope should be Upgradable to Motorized Nose-piece, Condenser and Motorized Fluorescence attachments in future.

Optional:

1. Filter mirror for Calcofluor dye
2. Computer workstation: - Intel Xeon Processor, 4 GB RAM, 500 GB HDD, DVD Writer, 18.5" TFT Monitor, operating System- Win-7, Key Board, Mouse and along with 600va UPS.
3. Additional TFT monitor (22") along with card for computer acquisition enabling live imaging

Terms and conditions:

1. Quotations should be placed in separate envelopes of technical and commercial bid, kept in sealed outer envelope.
2. The quotations must have validity of at least four months
3. Quotation must include insurance and air-freight charges, delivery period of the items addresses to The Indian Institute of Technology Delhi, India (FOB, New Delhi)
4. The products will be used for educational purposes. Any applicable academic institution discounts should be offered and stated.
5. Detailed brochures should accompany the offer.
6. If the bidder is an authorized dealer then the authorized Indian dealership certificate from the principles should be enclosed.
7. Warranty must be provided.

8. Payment will be as per IIT Delhi norms.
9. In case the items are proprietary products of the company, a proprietary item certificate stating the same must be provided.
10. Training should be provided.
11. Institute reserves the right to accept or reject any or all the quotations without assigning reasons thereof.
12. Details of User List with phone number and email ID should be provided.
13. Bidder should quote latest model with the above specification.
14. Bidders must provide comparative compliance along with the technical specifications