अभियांत्रिकी अभिकल्प विभाग, भारतीय प्रौद्योगिकी संस्थान मद्रास, चेन्नै

Department of Engineering Design, Indian Institute of Technology Madras

Reference No.: EDD/2016/001/MFCILC/03

Date: 6 March, 2017

Due Date: 13 March, 2017

Subject: INVITATION FOR QUOTATIONS FOR SUPPLY OF AN INVERTED PHASE CONTRAST MICROSCOPE WITH FLUORESCENCE ATTACHMENT AND CAMERA FOR IMAGING OF LIVE CELLS (Quantity: ONE NUMBER)

Dear Sir/ Madam,

1. Quotations are invited in duplicated for the various item shown below over leaf/enclosed list.
2. The quotations are to be **two parts – one Technical Offer** and **one Commercial offer**:

   The two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in separate envelopes must be enclosed in the one bigger envelope duly sealed and super scribed with reference number and date and due date must be addressed to the under singed so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for 60 days from the due date and the period of delivery required should also be clearly indicated.
4. **Local Firms:** Quotations should be for free delivery to this Institute. If quoted for Ex – Godown delivery charges be indicated separately.
5. **Firms outside Chennai**: Quotations should be for F.O.R Chennai / F.O.B. Chennai / CIF Chennai (Including Insurance and Freight Charges).If Ex-Works, Packing, forwarding and freight charges must be indicated.
6. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the quotations, wherever applicable. Specification datasheet pertaining to the items quoted should be provided. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.
7. The rates of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have concessional sales tax applicable to non-government educational institutions run with no profit motive for which a concession. Sales tax certificates will be issued at the time of final settlement of the bill.**
8. Goods should be supplied carriage paid and insured.
9. Goods shall not be supplied without an official supply order.
10. **Payment**: Every short effort will be made to make payment within 30 days from the date of bill / acceptance of goods whichever is later.
11. The Warranty of the item should be at least 12 months.
12. The Guarantee period of the item may be indicated clearly.
13. In case of LC. Payment 90% of the payment will be made after completion of the supply. The balance 10 % of the payment will be made after satisfactory installation of the equipment.
14. IIT Madras is exempt for payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demend.IIT Madras will make necessary arrangements for the clearance of imported goods at the Airport / Seaport. Hence the price should not include the above charges.

Tulu Subhra Santra
Department of Engineering Design
Indian Institute of Technology Madras
Chennai - 600 036.

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15. **Acceptance and Rejection**: - IITM has the right to accept the whole or any part of the Tender or portion of the quantity offered or rejects it in full without assigning any reason.

You may kindly provide a quotation for An INVERTED PHASE CONTRAST MICROSCOPE WITH FLUORESCENCE ATTACHMENT AND CAMERA FOR IMAGING OF LIVE CELLS **(Quantity: One Unit)** satisfying following specifications.

1) Inverted Phase Contrast Microscope with Fluorescence Attachment and Camera for Imaging of Live Cells

Item	Sl No	Parameters	Specification
Inverted fluorescence Microscope	1.	Mechanical Stage	≥ 230mm ×230mm
	2	Stage stroke	≥ 110mm×75mm
	3	Position lock & dish holder for stage	Stage should be position lock system with ≥ 30 mm dish holder which can be used for cell incubation and high position reproducibility by fixing dish on holder
	4	Two-deck system	2 port for fluorescence illuminator/extra camera attachment
	5	Widefield eyepiece 10×, F.N & focusable F.N (Field number)	≥ 20 mm
	6	Long working distance condensers	≥ 0.5 NA, 25mm W.D
	7	Nosepiece position	≥ 6
	8	Plan achromat phase objective NA and W.D for 4×, 10×, 20×, 40×	≥ 0.1 NA, ≥ 18 mm W.D (4×) ≥ 0.25 NA, ≥ 10 mm W.D (10×)
	9	Long working distance achromat and plan semiapochromat phase objectives for 20× and 40×	≥ 0.4 NA, ≥ 3 mm W.D (20×) ≥ 0.5 NA, ≥ 3mm W.D (40×)
	10	Coded Intermediate magnification changer	≥ 1×/1.5× & 2×
	11	Frost filer diameter	≥ 45 mm
	12	Interference light balance daylight filter	≥ 40 mm
	13	Natural density filter	≥ 40 mm
	14	DIC position DIC magnification changer	≥ 5, diameter ≥ 30 mm built in iris ≥ 3
	15	DIC prism	For 40×
	16	Fluorescence turret	≥ 7
	17	UV excitation filter	≤ 320-400 BP
	18	Blue excitation filter	≤ 450-500 BP
	19	Green excitation filter	≤ 530-560 BP
	20	Mercury burner	100 W
	21	Power supply	100W
	22	Microscope future upgradation	TIRF/semi-motorized/confocal
Digital color cooled CCD camera	23	Resolution	≥ 5 Megapixel ≥ 2500 × 1900 Pixel in 10 bit per RGB color channel
	24	Exposure time	1 ms to 15 minutes with 1µ resolution
	25	Color binning	≥ 4×4
	26	Pixel size	≥ 3.4 µm × 3.4 µm
	27	S/N ratio	≥ 50

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28	CCD type	Interlaced, Interline, Bayar color (R,G,B)
29	Readout speed	$\geq$ 15 MH_z in 8 bit $\geq$ 10 MHz in 10 bit
30	Real time viewing	$\geq$ 25 frames/s
31	Cooling	Approximate 10^0C below ambient

2) Specification datasheet pertaining to the items quoted should be provided.

3) Fluorescence system should also include an appropriate data acquisition computer system. All components should be USB compatible for ease of operation.

4) Preinstalled software in an appropriate data acquisition system in Windows environment to control the complete imaging system and to acquire data should be included.

5) Calibration report with a suitable source should be provided before the shipment of the system.

6) The vendor should have supported similar systems for 3 years minimum in India. Please enclose a list of customers.

7) The warranty for the above equipment should be at least 12 months. The year-wise cost of extended warranty for two more years following the expiry of the normal warranty period for the equipment should be quoted. Please provide input on packaging charges, delivery charges (Freight and Insurance etc. till Chennai, India), Delivery period, Sales Tax (if any), Validity period for the quotation, Payment terms and all the relevant terms and conditions.

The quotation should include technical and commercials details. **The due date for receiving the quotation is 13 March, 2017 (on or before 2:00 pm Indian Standard Time).** Any quotations received after the deadline prescribed above will not be accepted. The quotation **(duly signed hard-copy)** should be sent to the following address.

Address:

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Chennai 600036, India

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Recommended

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