

INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS, NEW DELHI – 110016

DATE: 25-11-2013 (25th Nov. 2013)

CORRIGENDUM: NOTICE INVITING QUOTATIONS

NIQ No: IITD/SBS/2013-14/AM/HSLIS-1 DUE DATE: 11-12-2013 (11th Dec. 2013)

This is an extension of the NOTICE INVITING QUOTATIONS below

(Original NIT No. 3768)

DATE: 28-10-2013 (28th Oct. 2013)

NOTICE INVITING QUOTATIONS

NIQ No: IITD/SBS/2013-14/AM/HSLIS DUE DATE: 25-11-2013 (25th Nov. 2013)

Sealed quotations along with complete details (brochures/web-site details) are invited for supply and installation of an inverted “High Speed Low Light Imaging System” for study of (intra)cellular dynamics as per the following description and desired specifications:

Technical Specifications/Requirements

1. Motorized ergonomic Stand with inbuilt Z-focus (motorized) drive with step resolution of 10-12 nm or better with dedicated TFT/LCD Touch screen capable of controlling all motorized functions of microscope. Frame should be onsite upgradable to laser based drift focus mechanism for long term live cell imaging mechanism.
2. 12V-100W Halogen light for Transmitted Illumination with a Provision of light intensity control.
3. Motorized Universal DIC condenser (suitable for all Microscopy Techniques) with 7/8 position, with DIC prism for 20X, 40X, 60X, 100X lenses.
4. Eyepieces 10X with field of view of 22 (minimum) or better – 2 Nos.
5. Six/Seven positions Motorized revolving DIC nosepiece to accommodate six/seven objectives lens of different magnifications at a time.
6. XY motorized scanning stage with Joystick and software control. Sample holders for (35 mm Petri dish), slides and multi-well cell culture plates.
7. High numerical aperture objectives suitable for Bright field (BF)/ fluorescence(Fl)/ DIC Observation (Apochromat lenses should be corrected from UV to IR range):
 - (i) Plan Semi Apochromat/Fluorite 10X
 - (ii) Plan Semi Apochromat/Fluorite 20X (Spring)
 - (iii) Plan Fluorite/Semi Apochromat Long working distance 60X (Dry)
 - (iv) Plan Apochromat 40X (Spring)
 - (v) Plan Apochromat 60X (Oil)
 - (vi) Appropriate 100X objective for BF/Fl/DIC.60 ml of Immersion oil + Atleast 5 lens cleaning paper packs for objectives should be provided separately.

8. Motorized fluorescence attachment: 120/130 watts Metal/Mercury Halide illumination with ~ 2000 hrs life time. It should have turret with 7-8 positions for fluorescence filters cube installation space at a time.
9. Fluorescence Filters: Band pass Fluorescent filters for FITC/GFP, TRITC/Rhodamine/Cy3, DAPI/Hoechst, Octadecyl Rhodamine & Dil. System should also come with additional 2 empty filter cubes for mounting the additional filters of choice in future. The system should have fast filter wheels for both Excitation & Emission side with a speed of 60 milliseconds or better.
10. The system scan head should have at least 3 built in Fluorescence detection PMT for point scanning imaging capabilities. It should have Laser light source LD 473/488nm, 635/638/640nm & HeNe 543nm laser. It should also have a Transmitted Light PMT for DIC confocal imaging for studying localization of specific protein expression. The system should have a single variable pin hole.
11. The Fluorescence detectors/PMT should preferably be present inside the scan head for high signal collection. For maximum signal collection the signals should be delivered directly to the detectors instead of using any fibre delivery method.
12. The system scan head should be field upgradable for two photon microscopy with IR laser in future for studying deep tissue imaging and localization. It should also be upgradeable to High QE two channel cooled Gallium Arsenite Phosphate detectors.
13. The system should have a set of built in galvano mirrors with reflectance more 90% from UV-IR range. All the fluorescence detectors should be present inside the scan head/module for maximum signal collection & sensitivity.
14. The system should be capable of a resolution of at least 4K x 4K pixels. Scan capability of at least **4000 lines** and scan speed with minimum of 4 frames per second at 512 X 512.
15. Monochrome back illuminated EMCCD Camera: 16 Bit, 20 & 10 MHz Digital , IEEE-1394 interface, Turbo 1394 interface (FireWire), high pixel size of 16um x 16 um pixels, ~90% Quantum Efficiency Detector cooled to -80°C (air cooled ambient air at 20° C), read noise of 75e at 20MHz, Full Well capacity of 180,000e. Speed of at least 66 fps at 512x512 & adjustable upto 1050fps with binning and ROI option.
16. Software: Should have Advance Acquisition of camera Control and controlling all function of Motorized Microscope, Should have quantitative Measurements, Should have Time-lapse Recording, Multidimensional Fluorescence Capturing and analysis. The point scanner software should have full control on Microscope with FRET/FRAP & co localization options. It should have facility of automatic control of laser light during time lapse imaging in order to avoid any intensity artifacts. Software module for FCS/FRAP/RICS analysis should be quoted optionally.
17. Separate software and Computer for confocal application control all parameters of image acquisition including **necessary modules for studying FRET/FRAP/Co-localization & Physiology applications**, 3D rendering, online intensity profile, Multi point imaging and mosaic/stitching application. System should have Laser intensity stabilization /feedback mechanism to maintain uniform intensity throughout the experiment. The system should be capable of doing Ca⁺⁺ ion imaging with visible range of dyes using same detectors.
18. A branded computer system i5/i7 processor with 8 GB or higher RAM, DVD Writer, 1TB GB or higher HDD, Original Windows 7/8 Operating System (64 Bit), LCD Monitor 22 inches for high speed dynamic imaging. One additional computer system of latest compatible configuration for the point scanning system should be supplied from the Principal Company itself along with the

system. The supplier should also provide either two 22" TFT monitors or one 28-30" TFT monitor for the scanning system.

19. Suitable online UPS (minimum 4-5 KVA) for the entire system assembly (including computer peripherals).
20. Suitable Antivibration Platform with sturdy table.
21. Separate computer Table.

TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

1	About bidding: Who can bid?	<p>(a) <u>Either</u> the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both can not bid simultaneously.</p> <p>(b) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.</p> <p>(c) Multiple bids are required to be submitted for multiple models/systems by an Indian agent or Principal/OEM. Single bid must be for a single imaging system.</p> <p>(d) The agent/vendor must be registered for import with the Ministry of Finance/Commerce.</p>
2	Agency-ship Certificate	The vendor must attach with the offer a latest sole selling and servicing agency-ship certificate from OEM for sale/service in India.
3	Delivery and Installation	School of Biological Sciences, IIT Delhi.
4	Payment Terms	Quotations with Advance Payment terms will be rejected, 100% payment will be made through LC.
5	Validity of Quotations	Quotations should be valid for at least 3 months from the date of receipt.
6	Correspondence	No correspondence regarding acceptance/rejection of a quotation will be entertained.
7	Discount/Rebates	Special discount/rebate, wherever admissible, keeping in view that the supplies are being made for educational purpose in respect of public institution of National importance must be indicated.
8	Warranty	<u>Standard comprehensive warranty</u> for at least three (03) years on the imaging system, from the date of installation, is required.
9	Price quotation	<p>Please quote prices of imported items at FOB (Freight on Board) IIT Delhi inclusive of all taxes, freight, delivery, installation and onsite training charges. The quotation should provide the total price of the system including all taxes and transportation charges.</p> <p>In case IIT Delhi is imposed with demurrage charge due to import on CIF, the entire demurrage charge has to be borne by the Indian Agent of foreign supplier.</p>
10	Delivery period	Delivery period must be clearly specified.
11	Printed brochures/website links	The printed brochures and/or website link(s) detailing the technical specifications of the items quoted must be provided in the offer, failing which the quotation may be rejected.
12	Proprietary item	In case the offered equipment is proprietary in nature, the same must be mentioned over the Main envelope and both the Technical and Financial envelopes inside the main envelope. The necessary proprietary certificate clearly stating the proprietary details should be furnished together with the Technical quotation.
13	Compliance Statement	<p>Tabulated compliance report for both the Technical specifications and the Terms and Conditions must be provided with the Technical bid.</p> <p>The compliance report should be exactly in the same itemized order as this NIQ (S. No. 1-21 for Technical Specifications/Requirements and S. No. 1-18 for terms and conditions). Deviations of specifications of the system quoted from the (minimum) requirements in this NIQ should be explicitly stated.</p>
14	Submission of	(a) The quotation, in sealed cover, mentioning the NIQ reference and

	quotations	<p>due date on the envelope addressed to the undersigned should be submitted to the front counter/office of School of Biological Sciences before the due date and time. Submissions not adhering to this term will not be considered.</p> <p>(b) Separate technical and financial bids must be submitted. The sealed envelope in (a), i.e. mentioned above, should contain two (02) individually sealed envelopes, each mentioning the NIQ reference and due date and clearly marked as “Technical” and “Financial” respectively.</p> <p>(c) The financial bid must contain itemized costs and a consolidated total at the end (inclusive of all applicable charges).</p>
15	Rejection	Quotations not conforming to the terms and conditions will be rejected.
16	Institute’s rights	IIT Delhi reserves the rights of acceptance or rejection of any or all quotations without assigning any reason(s). The discretion for increasing or decreasing of the quantities demanded also vests with the Institute.
17	Custom Duty	<p>IIT Delhi is exempted from paying custom duty under notification No.51/96 (partially or fully) and necessary “Custom Duty Exemption Certificate” can be issued after providing following information:</p> <p>a. Shipping details i.e. Master Airway Bill No. and House Airway No. (if exists)</p> <p>b. Forwarder details i.e. Name, Contact No., etc.</p> <p>Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute and Bills of Entry should be submitted to IIT Delhi later on.</p>
18	Excise Duty	IIT Delhi is exempted from paying Excise Duty and necessary Excise Duty. Exemption Certificate will be provided for which following information is required: Quotation with details of Basic Price, Rate & Amount on which ED is applicable.

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