

Indian Institute of Technology - Kanpur
Department of Biological Sciences & Bioengineering

Enquiry Number: IITK/BSBE/FIST/2015-16/NC1; dated: 23-10-2015

Sub.: Inquiry for the supply of:

“High Resolution Ex-vivo Micro Computer Tomography Imaging System”

Opening date: October 26, 2015 at 10:00 AM

Closing date: November 5, 2015 at 5:00 PM

Sealed quotes (technical bid and price bid separately sealed) are invited for the above mentioned laboratory products as per the specifications given in the next page.

Your quote should mention/include the following:

- Maximum discount if any should be offered and mentioned.
- Quoted price should include the cost for installation, warranty and required accessories
- Validity of the quote at least for 90 days.
- FOB (indicating port of shipment) and CIF (New Delhi) values should be quoted separately if import is required. For quotes in INR, the price quote should be for delivery at Kanpur.
- The quote should cover insurance for transport up to Kanpur.
- Indian agency commission if applicable (should be certified by the principal if no agency commission is applicable) in case of import.
- Authorization certificate from the principal if you are a local agent.
- Terms and conditions for the payment, including the banker's name of the principal and the account number, if any, for electronic transfer.
- Include proprietary item certificate if applicable.
- Technical literature to support your product (in technical bid).
- Users' list with contact address in technical bid.

Note: Only principal manufacturers or authorized representatives are requested to send the quote along with proper certificates. The envelope should be marked as **“Quote for High Resolution Ex-vivo Micro Computer Tomography Imaging System”**

Head

Department of Biological Sciences & Bioengineering
Indian Institute of Technology Kanpur,
Kanpur 208016 (UP), INDIA

Attention: Prof. Ashok Kumar

“High Resolution Ex-vivo Micro Computer Tomography Imaging System” [Quantity: 1]

Essential components and features:

1. Table top design Micro Computer Tomography (micro-CT) platform capable to work with Ex-vivo Biological samples like lung, bone, kidney, heart, brain, plants, insects, marine samples etc; and biomaterial and material science samples like electronics, scaffolds, polymeric materials and implants, carbon sample, Glass fibres, composites, metals etc; samples.
2. The system should be equipped with a very high resolution camera with minimum 11 megapixel and should have large field of view (24 x 36 mm) or better.
3. X-ray Detector: Cooled large format CCD detector with coupling to the scintillator by 1:1 fiber-optic plate.
4. The system should be have high resolution **down to 500 nm isotropic** detail detection with three levels of pixel binning, to allow a flexible range of both high resolution and high-speed imaging.
5. System should have adaptive geometry feature to alternate source-object-camera geometries allow accelerated scans at intermediate resolution levels, corresponding to the most used magnifications for micro-CT scanning and to provide exceptional scan speed.
6. System should have thermal movement correction feature for unparalleled image quality at submicron resolutions.
7. Micro focus x-ray source with applied voltage in a range from 20-100 kv, 0-250uA, 10W, <5micron spot size (at 4W).
8. The system should be equipped with automatic filter changer with minimum 3 slots and should be supplied with 3 filters. The system should be open to user to use filters of their choice additional to the standard filters for energy selection.
9. Objects up to **70 mm height** and **50 mm diameter** can be imaged with the auto-connected vertical oversize scan function and registration matching for long object scans giving continuous reconstructed datasets with no boundary discontinuities.
10. The system should be compatible with wide range of samples stages and holders like made of plastic or polystyrene foam and special object holders for materials like small particles, paper etc;. The system should be supplied with minimum **3 - 5 all sample mounts**. The system should be supplied with some **phantoms** mimicking bone, porous biomaterials/scaffolds and other soft tissues.
11. The system should be capable to do single, continuous and batch scanning parameters.
12. The system needs to be equipped with a video camera to view the sample during scanning.
13. The system should include special purpose **Material Testing stages for compression/ tension** (220N & 42N), heating and cooling.
14. System should be supplied with GPU-accelerated reconstruction and with world's fastest hierarchical reconstruction software for unexceptional re-construction speed.
15. The radiation should be <1μSv / h at any point on the instrument surface.
16. Should be compatible to work with Windows based work stations.
17. Factory trained Engineer for hardware and applications support should be available locally.

18. The system should be supplied with comprehensive analysis software for morphometry, calibrated densitometry and 3D model creation, animation, creation of scan datasets in DICOM 3 format and powerful 3D model viewing software for both volume & surface rendering apart from system control and scanning software.
19. The analysis software should have site license to install in minimum 3 – 5 computers at customer site.
20. Software upgrades free of charge and downloadable from the internet.
21. **Workstation:** The minimum configuration of the work station should be:
Host computer with preinstalled software and InstaRecon® as standard
2x Intel XEON processor E5-2640 v3 (eight core HT, 2.6 GHz Turbo 20 MB, 90W)
Windows 7 Professional (64-bit)
64 GB DDR3 2133 MHz RAM; 4 GB NVIDIA Quadro K4200 Graphical card
8 TB (2x 4 TB) SATA HDD in RAID 0 for data; 512GB SolidStateDrive for operating system and programs; DVD+/- RW drive; Fire-Wire IEEE1394 card
QWERTY keyboard; Optical scroll mouse; Soundbar
22. **Accessories:** Appropriate voltage stabilizer/UPS/any other necessary accessories required for installation should be quoted.
23. **Warranty and AMC:** Minimum two year warranty and additional two year AMC.

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