

NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136119

No. MED/NITK./2016/49 / 8

Dated: 2/01/17

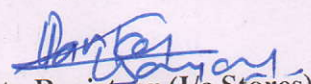
M/s Institute website

Sub: INVITATION OF QUOTATIONS FOR METALLURGICAL INVERTED MICROSCOPE WITH IMAGE ANALYSIS SOFTWARE AND ATTACHMENT COMPUTER SYSTEM.

1. You are invited to submit your most competitive quotation for the following goods:

Sr.No.	Brief Description & Specifications of Goods	Quantity
1.	Metallurgical inverted Microscope with Image analysis software and attachment Computer system	01 Nos.
(Detailed Specifications are attached)		

2. Necessary literature of the goods may please be sent to facilitate to take decision.
3. All duties taxes and other levies payable by the Institute shall be included in the total price. This Institute does not issue Form C or D.
4. Payment will be made Online through RTGS/NEFT within 30 days after receipt of material in good condition and according to specifications. The Bank detail for making online payment may be indicated in the quotation.
5. The supplier shall deposit Earnest Money alongwith the Quotation amounting to Rs. 14000 /- in shape of Accounts Payee Demand Draft, Fixed Deposit Receipt, Bankers Cheque or Bank Guarantee from any commercial Bank in favour of the Director, National Institute of Technology, Kurukshetra. The Quotations without Earnest Money shall be rejected, the EMD will remain valid for a period of 45 days beyond the final validity period of quotation.
6. Performance Security @ 05% of the total value of the equipment may be furnished in shape of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any Commercial Bank in favour of the Director, NIT Kurukshetra valid upto 60 days after the date of completion of warranty .
7. The items must be supplied within delivery period or delivery period extended by the Institute on the request of the supplier on genuine grounds otherwise the penalty for delayed period @ 0.5% of the amount shall be charged for every week or part thereof and the maximum 10%..
8. The goods are required exclusively for Research Purpose. The Duties are not payable by the Institute.
9. The quotation should remain valid for a period not less than 60 days from the date of submission.
10. The right of accepting or rejecting any quotation and to cancel the bidding process and reject all quotations without assigning any reason is reserved with the Institute.
11. The due date for receipt of quotation is **16.01.2017** and will be opened on next working day. Please quote on the top of the envelope our Ref. No. and due date of opening.


(The Signer)

Name of Equipment and Specifications	
Metallurgical Inverted Microscope with Image analysis software and attachment + Computer system	
It should be capable of visualizing the microstructure of surface coating layers, hardened steels, nonferrous alloys, ceramics, cermets, treated layers of metal surface etc. It should be able to perform different types of analysis with the help of high quality images	
Technical Specifications of Digital Microscope and Features Required :	
Type	Inverted type with infinity corrected optical system
Illumination	Built-in white LED illuminator
Observation Modes	Bright field and polarized mode
Nosepiece	Bright field 6/multiple fold nosepiece
Magnification	50X -1000X Dry using a single set objective 5X (NA 0.15 WD 23.5), 10X (NA 0.30 WD 17.5) , 20X (NA 0.45 WD 4.5), 50X (NA 0.8 WD 1.0) & 100X (NA 0.9 WD 1.0) Dry objectives, for all observation mode methods. All objectives should be corrected for infinity and spherical and chromatic aberration resulting sharp and clear image. Objectives 50x & 100x shall have a working distance of minimum 1mm.
Filters	Blue, green, polarizer and analyzer
Stage	Mechanical/Motorized 150mmX200mm to 200mmX300mm with stroke 50 mm x 50 mm or more
Eye Piece	Wide field eye piece 10X with 22 mm FOV or more,
Eyepiece Tube	Trinocular eyepiece tube
Video port	For photography and computerization
Image grabbing	5 MP CMOS/CCD camera. Resolution of 2560 x 1920 pixels. ROI Mode maximum 37 fps or more. Dynamic range 1000:1. It can be universally used for brightfield, darkfield, phase contrast, or DIC observations + data card + adapter with computerized Image analysis software
Image Analyses Software	Image capture, live display with live zoom function and movie acquisition. Microscope Control and Image Acquisition, Measurement acquisition, Calibration, measurement, count, length, area, angle, circle and ellipse etc. Grain size analysis automatic- ASTM-112, E-930,JIS,DIN, Phase analysis - ASTM E566 1245, Decarbization- ASTM E 1077, Coating Thickness ASTM B 487, Nodularity- ASTM A247, Porosity- ASTM276., Inclusion- ASTM E 454-E 1245.
Microscope Accessories	Stage micrometer, Dust cover, color filter set, spare lamp and fuses and others.
Specification of Computer system	18.5/21 inch LCD/LED monitor, latest Core i5 processor, 4 GB DDR3 RAM, 500 GB Hard drive, UPS etc.
Warranty, Installation and demonstration	Minimum of 1 year warranty. Free Installation and demonstration by supplier
Acceptance Criteria	Manufacturer must be in the business of manufacturing microscope for more than 5 years. A documentary evidence in form of at least 2 purchase orders from reputed govt. Institutes / organisation must be provided.