

**Indian Institute of Technology, Kanpur**  
**Department of Materials Science and Engineering**  
**Call for Quotation: Upright Trinocular Research Microscope**

**Enq. No.:** IITK/MSE/SSS/16-17/01

**Enquiry Dated:** 18/07/2016

**Closing Date:** 10/08/2016

**Technical Specification:** Trinocular **reflected light** research microscope for materials science application with following illuminations

- i. **Bright field(BF),**
  - ii. **Dark field(DF),**
  - iii. **Polarizing(POL) and**
  - iv. **Differential Interference Contrast(DIC) with,**
- High resolution **digital camera** system

Following are the technical specification

Sl. No.	Components as per our requirement	Details
1	Light Source	<b>Reflected LED light source</b> , accommodate the following features: BF, DF, POL and DIC Should have light Intensity manager for automatically adjusts the light intensity
2	Filters	Minimum requirement: <b>ND Filter, Amber/Yellow Filter, Green Filter, Blue Filter, Light balancing filter</b>
3	Retardation Plate/Compensating plate	de Sénarmont Compensator
4	Nosepiece	<b>Coded Nosepiece, compatible for BF/DF/DIC/MIX and accommodate minimum 5 objectives</b>
5	Eyepiece	<b>10x magnification</b> , (FOV 26.5) one eyepiece should have cross reticle, with eye guard
6	Stage	Right handle mechanical stage, with <b>an option for upgradation to motorized</b> , Minimum dimension of stage 100 mm x 100 mm
7	Mirrors	Mirrors for the following features viz. BF, DF, POL
8	Polarizer and Analyser	Analyser should be <b>360 degree rotatable</b>

9	DIC	Nomarski DIC prism slider for topographic features for all objectives
10	Dry Objectives	<ul style="list-style-type: none"> <li>• <b>Objectives: 5x NA0.1, 10x NA0.25, 20x NA0.45, 50x NA0.80, 100x NA0.9</b>, Objectives should be compatible with BF, DF, POL and DIC</li> <li>• <b>All the objective should have chromatic aberration corrected in the visible region (Violet to red) ( ISO nomenclature: Semi – ApoChromats)</b></li> </ul>
11	Camera	Scientific HD camera having <b>minimum resolution of 5 MP</b> or Minimum pixel size 2.2 $\mu\text{m}$
12	Software	Following software required <ul style="list-style-type: none"> <li>i. <b>Image acquisition &amp; fundamental Metallurgical measurements</b></li> <li>ii. <b>Panorama</b></li> <li>iii. <b>Z focusing</b></li> </ul>
13	Additional features	<ol style="list-style-type: none"> <li>1. MIX illumination and/or inclined DIC</li> <li>2. Should have a feature for auto calibration</li> </ol>
14	Accessories	<ol style="list-style-type: none"> <li>1. Should provide calibration slide for auto calibration</li> <li>2. Dust cover for microscope and camera</li> <li>3. Power card should be compatible to Indian Sockets</li> </ol>

**Note:**

- *All the optical element should be infinity corrected*
- *Complete computer configuration and compatible operating system **should be mentioned** in the quote*
- **Installation and Training:** *Should be done by the trained service engineer and should also provide on-site training to our operator*
- *Quote separately for ex-works, FOB from the country of origin and delivery to IIT Kanpur*
- *Send a proprietary certificate, if this is a proprietary item of your company/principal*
- *Include an authorization from the principals for the agent/representatives*
- *All the above mentioned components viz., Microscope, Camera, Software, dust cover etc. should be from the single manufacturer – **NO hybrid** components are allowed in order to achieve maximum efficiency and reproducibility*
- *Send complete details of the product – Quote may not be accepted if the complete details are not provided*

**Terms and Condition:**

- All the spares of the microscope should be available for minimum 5 years
- Maximum educational discount, if any should be offered
- Warranty should be minimum 1 years from the date of installation
- Quote must be valid for 60 days
- Quotation should carry proper certifications like agency certificate, proprietary certificate etc.
- Any other charges from your side should be specified
- Delivery period should be not more than 2 weeks from the receipt of order
- Payment of 90% before installation and 10% after installation

*The prospective suppliers are required to send quotation in two parts in sealed envelopes, as “Technical Bid” and “Financial Bid”. The two separate and sealed envelopes should be clearly marked appropriately as “Technical Bid” and “Financial Bid”. (i) The Technical Bid should contain detailed technical specification of the product being offered and should not mention any price. Please also provide ‘performance report’ from the places where this equipment is provided. (ii) The Financial Bid should include the detailed price quotation clearly including the cost of the equipment, taxes, service charges if any, shipping and handling charges.*

Kindly submit the Technical and Financial bids in sealed envelopes latest by 5 PM on 10.08.2016:

To,

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*(Any quires, please send email to the above mentioned mail id)*