



पदार्थ विज्ञान एवं अभियांत्रिकी विभाग  
भारतीय प्रौद्योगिकी संस्थान कानपुर  
Department of Materials Science and Engineering  
Indian Institute of Technology Kanpur  
कानपुर - 208 016 Kanpur-208 016

Enquiry Letter for Quotation of Optical Profilometer

**Enq. No.: CARE/IITK/MET/KB\_1**

**Enquiry Dated: Dec. 30, 2013**

**Closing Date: Jan. 14, 2014**

Sealed quotations (in two separate envelopes namely “TECHNICAL ONLY” and second “FINANCIAL” bid) are required for **Non-Contact Optical Profilometer**. The specifications for the equipment are in the addendum. The closing date for the above item is extended to **Jan. 14, 2014**. Vendors are encouraged to get in touch with the indenter and make a presentation (before the closing date, preferably on first week of Jan. 2014) to the standing technical committee regarding the instrument capabilities.

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. This should also mention the guarantee and complete spare parts must be included that are required for functioning of the unit.

(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.

**Terms and Conditions:**

1. Maximum education discount, if any should be offered
2. Validity of quotation should be at least for 60 days
3. Prices should be on CIF and FOB separately (if imported)
4. Prices should include the installation and training cost
5. Warranty should be for at least three years after installation
6. Normal payment terms for the Institute will be applicable (90% on delivery of the items and the remaining 10% after satisfactory installation/ inspection)
7. Quotation should carry proper certifications like agency certificate, proprietary certificate, etc.
8. An undertaking that the vendor will supply all the spares and services for the equipment for at least 5 years from the date of commissioning

## Technical Specifications for Thermal Analysis System

9. Delivery must be within 6 months

Kindly send the Technical and Financial bids in sealed envelopes latest by Jan. 14, 2014 by 5pm, to:

**Dr. Kantesh Balani**  
**Faculty Building, Room 412,**  
**Dept. of Materials Science and Engineering**  
**IIT Kanpur, U.P. 208016, India.**  
**e-mail: [kbalani@iitk.ac.in](mailto:kbalani@iitk.ac.in)**

### Non-contact Optical Profilometer

Parameter	Specifications*
Non-contact Optical Profilometer Specifications	
Stage	Motorized/automated X/Y table with 150 x 100 mm travel
Sensor Head	<b>Non-contact Sensor</b>
Lateral Resolution	Two non-contact objectives are required with > 3 mm working distance (preferably >10 mm) (i) 400 nm or less resolution [Required] (ii) 50 nm or less resolution [Desired]
Objective lens	TWO objectives (50x and 20x) or sensor-heads are required for achieving above lateral resolution
Vertical resolution	~0.01 nm
Surface Compliant	Measurements for surfaces with very low reflectivity (<0.5%) to very high reflectivity (>85%)
Tilt function (Preferred)	Say up to $\pm 6$ degrees
Height Calibration	Need height standard (say silicon) for achieving height accuracy.
Zoom lens	0.5x, 1.0x, 1.5x and 2.0x
Video/image grabber	Need high resolution (>3MP) image/video capture
Power Requirements	• 220V/ 50Hz + Must include UPS for the instrument
Accessories	• Include accessories related to instrument (such as dampener/ anti-vibration set-up is instrument can not work on a standard worktable).
Software	<ul style="list-style-type: none"> <li>- Complete set to evaluate various standards of roughness</li> <li>- Scan, and visualize surface topography</li> <li>- Should be able to export data in ascii or dat format</li> <li>- To be able to automatically relate the volume difference between 'before' and 'after' surface change (say for evaluating wear volume) even without exact positioning.</li> <li>- The instrument should be installed with latest available version of software for control, operation and analysis.</li> <li>- The supplier should upgrade the software as and when the upgradations become available for at least five years from installation</li> </ul>

## Technical Specifications for Thermal Analysis System

	<ul style="list-style-type: none"> <li>- Should have intelligent calibration logic.</li> <li>- Continuous automatic hardware diagnosis</li> </ul>
Computer, Printer and UPS	<ul style="list-style-type: none"> <li>• The equipment should come with a high performance computer with all the requisite software installed on it</li> <li>• Minimum Configuration: Intel dual core processor, 4 GB RAM, 500Gb Hard Disk, double 24” Display with other essential peripherals</li> <li>• Laser printer should be provided with the computer</li> <li>• UPS is also required with the computer</li> </ul>
Safety Norms	<ul style="list-style-type: none"> <li>• The instrument should include safety devices for protection against vacuum, water , power etc</li> <li>• The instrument should be compliant with international norms for safety and environment</li> </ul>
Installation, Commissioning and Training	<ul style="list-style-type: none"> <li>• The delivery of the equipment should be considered complete only after successful commissioning of the instrument</li> <li>• The pre-installation requirements should be communicated to IIT Kanpur well in advance of the installation</li> <li>• The Installation, commissioning and training should be done only by well-trained factory engineers at NO ADDITIONAL COST.</li> <li>• The supplier should provide training to at least two candidates at the installation site to make them familiar with smooth operation of the instrument</li> </ul>
Guarantee	Preferably 3 years. Or 1 year warranty + 2 years of AMC must be provided at no cost with the machine.
After-sales Service	<ul style="list-style-type: none"> <li>• The supplier should provide a prompt after-sales service such as regular instrument maintenance, troubleshooting and fixing</li> <li>• The list of service centers in India should be included.</li> </ul>
Spares	<ul style="list-style-type: none"> <li>• List of standard spares to be provided for each year starting from 1st to 5th year along with cost and discounted rates</li> <li>• An undertaking that the vendor will supply all the spares and services for the equipment for at least 5 years from the date of commissioning</li> </ul>
Annual Maintenance Cost	Include the cost of annual maintenance for each year for time period after three years after the guarantee/ warranty period. Provide the amount and the terms, Note that those providing better after sales service and support with written evidence will be given preference
<p><b>*Additional optional accessories should be indicated separately along with their price. The above specs are desirable and the actual numbers achievable for your system should be indicated.</b></p>	