

4i-Laboratory

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Enquiry no.: 4i-Lab/2013-14/07

Enquiry Date: 03/10/2013
Closing date: 11/10/2013

Sealed quotations (commercial and technical offers in separately sealed packets) should reach the undersigned latest by 12.00 noon on October 11, 2013 for following equipment with following configuration.

1. Portable Optical CMM Machine

The specifications for this equipment are given below.

- Optical technology for conducting measurement function
- Should be able to compensate automatically for instability, vibrations, thermal variations and operator skills
- Automatic alignment in a dynamic environment while conducting measurements
- Weight of hand-held probe (if needed) should not exceed 600 grams
- Hand-held probe should be wireless
- Single point repeatability should be 45 microns (or better)
- Volumetric accuracy should be 75 microns or better
- Single point accuracy should be 22 microns or better
- Working volume of inspection objects will be less than 3.5 cubic meters
- Minimum measurement frequency should be at least 25 Hz
- Extendable working volume without any loss of accuracy
- Operating temperature range: 15 C to 40 C
- Operating humidity range: 10 to 90% (RH_
- The entire equipment should be provided with robust carry-on enclosures, stands (if required), and all other peripherals as needed.
- Laptop (if needed for data acquisition) should be included in quotation. The laptop should confirm to requirements of the equipment it will interface with.
- All cables of sufficient length
- Requisite calibration equipment with initial supply of consumables
- Stylus (and adapters) of different lengths which may be attached to probe objects requiring inspection
- Appropriate software which offers full GD&T capabilities, and has a easy to use UI.
- Software should allow overlaying of CAD model on actual measured data.
- Reflectors (at least 4) with magnetic supports
- Warranty for at least two years on parts, labour and calibrations
- At least 5 years of software updates and technical support
- AMC for parts and labour may be mentioned as an option
- Onsite (at IITK) training for at least 5 days
- The system should be self contained and should not need any other equipment and software to function.

Other optional accessories (if required) may be included in the quotation.

2. Portable Laser Based 3D Scanner

The specifications for this equipment are given below.

- 3D laser based technology
- It should have three cameras.
- Handheld, self aligned, and self positioned
- Should be able to start and stop scanning intermittently without needing external referencing necessarily.
- Hand held device should not weigh more than 1000 grams.
- Hand held device should be a line scanner with a speed of at least 15000 measurements per second.
- Maximum size of hand held device should not exceed 180 X 280 X 250 mm.
- Accuracy required: 50 microns
- Resolution: 100 microns in x, y, z axes.
- Robust carry-on case for equipment should be provided.
- No requirement of rigid setups should be mandatory while the object is being scanned.
- Self positioning technology
- Easy to use GUI for software
- All requisite connectors, adaptors, and long cables
- Requisite power supply
- Requisite software
- Requisite calibration equipment with initial supply of consumables
- Laptop required to interface with equipment should be included in the quotation. It should have appropriate hardware and software configuration.
- Warranty of 2 years on parts, labor and system calibration
- Five years of software updates
- AMC for parts and labour may be mentioned as an option
- Onsite (at IITK) training for at least 5 days
- The system should be self contained and should not need any other equipment and software to function.
- Software/hardware required to expand capabilities of scanner (so that it can scan larger objects with limited loss of accuracy) may be included in quotation as an option.

Other optional accessories (if required) may be included in the quotation.

Additional Information for Both Products

1. Proprietary certificate, if relevant, should be provided.
2. Delivery time should be clearly mentioned in the quotation.
3. Vendors may provide separate quotations for each of these products.
4. The quotation should be accompanied with complete product description, technical literature, etc.
5. Please send your technical and commercial offers in separately sealed packets.
6. You are requested to submit your quotation in sealed envelope with complete product description, technical literature, price, warranty period, delivery time and other conditions by October 11, 2013 (12 noon) at the address given below.

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