Request for quotation

Enquiry number: ME/SYS//2016_17/CCD Camera etc.
Enquiry date: 02/02/2017
Closing Date: 20/02/2017

Subject: *Purchase of CCD camera with Accessories for PIV*

Quotation for the items mentioned above is requested in a sealed envelope. The quotation should reach on or before February 20, 2017 to the address given below.

Technical specifications:

1. ***CCD Camera: -* (1 Qty.)**

- Application: PIV
- Dynamic range A/D: 12 bit, Monochrome
- Minimum Resolution: 8 Megapixels
- pixel size: $< 8\mu m$
- Operational mode: Single & double frame mode
- Maximum Frame rate : >=10 fps @ full resolution in double frame mode
- Exposure time: should be adjustable, minimum: 5µs or less
- Quantum efficiency: >45 % @ 532 nm
- Inter framing time: 500 ns or less
- Triggering: The camera should have an option of external triggering using a TTL Signal
- Software: Software for controlling the camera (like exposure time, trigger mode, resolution, single or double frame modes, pixel binning, ROI, acquiring and saving images to a hard disk etc.)
- Camera Interface: Please include necessary hard ware for camera interface such as frame grabbers, connecting cables etc.
- Optical interface: F-Mount
- Operating temperature: 10°C to 45°C
- Operating humidity range: 10% to 90% RH

2. **Camera Lens: - (1 Qty.)**
   - 100 mm/f2.8 with MACRO with F-Mount

3. **Camera Link frame grabber Card: - (1 Qty.)**
   - It is to be used with Base/medium configuration, included two 3m CL to mini CL data cable & BNC Trigger cable.
   - Include necessary Ready-to-Run Image Acquisition and Analysis Software and Library

4. PIV Image Capture module: - (2 Qty.)
- Image Type: B/W, Grey, (8-16 bit)
- RGB file format: BMP/JPG/TIFF/AVI
- Camera Control: Free, Trigger, Ext., PIV support laser and other synchronization
- Image Store: Long time capture, store to RAM or HDD
- Control: all control by software
- Frame grabber interface: PCI, PCI-E-x1/x8
- Operating System: Windows (64 bit)
- Accessories: CD, user license with USB Key

5. **2D PIV Software package with GPU: - (2 Qty.)**

- Controlling of PIV experiment component as CCD Camera/Laser/synchronizer/external Trigger
- Image: TIFF, BMP, JPG, AVI
- Online particle image-acquisition & velocity-analysis function
- High resolution 2D PIV with multi-pass, multi-grid window deformation algorithm, support mask function and multi-average function (Particle image and vector result average function)
- Batch Processing: single directory or multi- directory auto process
- Advanced vector filter and multi zoom combination function
- GPU support: up to 10 times speed acceleration.

6. Synchronizer Unit: - (1 Qty.)
- Input Channels: 2
- Independent Output Channels: 8
- Delay: 0 – 5000 s
- Pulse width: 10 ns to 1000 s
- Resolution: 250 ps
- RMS Jitter: $</= 50$ ps
- Output: TTL 0-5 volt
- Impedance: 50 Ohms
- External trigger: Rate DC to 5 MHz

7. Work Station: - (1 Qty.)

- Windows 7 Pro 64 bit, Intel Xeon Processor, quad core, 3.5GHz, 16 GB DDR-4 RAM, Graphics card 2GB RAM for GPU Support, 1TB Hard Disk 7200 rpm SATA, 20 inches monitor, DVD Writer, optical Mouse, USB Keyboard

8. Tracer Particles: -(1 Qty.)
- 10-20μm hollow glass spheres tracer particles use for water application (500 gm sealed pack)

Kindly send your offer for the above items along with the following:

1. A signed Quotation with Proprietary certificate, if applicable (quotation should have a validity of minimum of 90 days)

2. The freight/shipping/documentation etc. costs are to be mentioned separately

3. The equipment should be provided with a warranty of at least one year after installation

4. The delivery period should be specifically stated.

5. The price should be quoted on ex-works basis (for Indian manufacturer) and FOB/FCA basis (for overseas manufacturer) along with maximum possible educational discount as well as quantity discount.

6. IIT Kanpur has its own freight forwarder for shipping from outside India.

Address for the quotation:

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