Request for quotation

Enquiry number: IITK/AE/ACM/2012_CAMPIVSOFT_1
Enquiry date: 13/12/2012
Closing Date: 03/01/2013

Subject: *Purchase of CMOS camera along with timing interface/separate synchronizer including all cables for synchronizations and PIV data acquisition & processing software*

Dear Sir/Madam,

Quotation for the items mentioned above is requested in a sealed envelope. The quotation should reach on or before January 3, 2013 to the address given below.

Technical specifications required for the CMOS camera:

- Camera: It should include low noise electronics, capable of working through USB2.0 and Gb Ethernet; it should also include low light selection mode for working in low ambient light
- Sensor type: Its sensor has to be CMOS
- Pixel Size: Its individual pixel size should be equal or less than 8x8µm
- Resolution: Its resolution should be 4 mega pixels or higher than this
- Frame rate at full resolution: At full resolution, it should acquire at least 600 frames per second; it should have capability to work at less frequency as well
- Maximum frame rate at reduced resolution: Its maximum frame rate at reduced resolution has to be equal or higher than 65000 fps
- Inter-frame time: Inter-frame time for PIV application should be 200 nanosecond or less
- Memory: Internal memory in the camera should be at least 8GB or above
- Global Electronic Shutter: Its global electronic shutter should be variable upto 1us
- Cooling: Built-in cooling arrangement to keep the camera cool for long working hours or hot weather conditions.
- Operating temperature and humidity: It should be capable of working within the temperature -40 to +50°C or better than this, and within the humidity level of 90%
- Plug-ins: It should also be compatible with Lab-VIEW, MATLAB.
- Vibration: 100G or better shock resistant capability is desirable
- Trigger: Camera should include manual trigger along with adjustable pre and post event trigger through software. It should be capable of automatic trigger via 5V TTL, programmable delay on selected input and output triggers
- Weight : It should be portable & light weight
- C& F Mount: It should be capable for Interchangeable Lens for C & F Mount Lenses; **Camera should be provided with a C or F mount, a *Nikkor 50 mm F1.4 lens or equivalent and a base plate***

- **Synchronization**: Frame Sync / Strobe; if an in-built synchronizer in the camera is not available, an external synchronizer has to be provided such that a pulsed-laser can be phase-locked with the camera at different frequencies

Technical details required for the PIV software:

- This software should be compatible with the camera provided
- It has to be capable of acquiring and processing of conventional two-dimensional and stereo-mode PIV images.
- A mesh-free environment along with standard and adaptive correlation techniques is desirable.
- An option is also expected to write custom correlation routines and to use them in the package.
- Noise and exposure control, smooth, sharpen, negative image, edge detection, brightness, contrast, gamma adjusts etc. are also expected.

Terms and conditions:

- Quotations should have a validity of minimum of 60 days
- The equipment should be provided with a warranty of at least one year
- The delivery time frame should be specifically indicated
- Quotation should also include FCA in country of origin and CIF New Delhi

Since the equipments are going to be used for educational purpose, i.e. for teaching students and research purpose, maximum educational discounts should be applied.

Address for the quotation:

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