Request for quotation

Enquiry number: AE/KP/2014-15/CMOS_CAMERA
Enquiry date: 08/12/2014
Closing Date: 22/12/2014

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

Quotation for the items mentioned above is requested in a sealed envelope. The quotation should reach on or before December 22, 2014 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 Gigabit Ethernet; it should also include low light selection mode for working in low ambient light

*Sensor type:*CMOS

*Pixel pitch:*10μmor less

Resolution: 4 mega pixels or higher

*Frame rate:*At full resolution, it should acquire 730 frames per second or more. At reduced resolution, it should acquire at 65000 frames per second or more. In addition, it should have the capability to acquire images at full resolution at frame rates lower than 730.

Inter-frame time: Inter-frame time for PIV application should be 200 nanosecondsor less

Memory: Internal memory in the camera should be 8GB or more

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%

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

*Lens Mounts:*Camera should be compatible with the 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 isnot 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

The software should be capable of acquiring and processing 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 equipment 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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