

Invitation of quotations

Ref: AE/SaM/2017/01

Department of Aerospace Engineering
Indian Institute of Technology Kanpur

January 10, 2017

Quotations are invited for the following items in the *Advanced combustion & acoustics laboratory*, affiliated to the Department of Aerospace Engineering, Indian Institute of Technology Kanpur.

1 Subject: Quotation for supply of high power Light Emitting Diode (LED) light source for PIV, Schlieren/Shadowgraphy, BOS applications and related accessories as per the following specifications

With reference to the subject mentioned above, you are invited to submit the quotation in a sealed cover (**technical and financial bid should be in separate sealed envelope**) in order to reach us on or before **2 PM 31/01/2017 (Tuesday)** in the form of a hard copy to the address mentioned below. The following are the technical details of the required item.

2 Technical specification

Technical details/Specifications required for the LED light source for PIV, Schlieren/Shadowgraphy, BOS applications and related accessories. Further all the items should be able to operate in the power supply available in India (single or three phase). Any additional unit, if required should also be indicated.

2.1 High power LED light source

- Output wavelength: Blue light
- Mode of operation: Both continuous and pulsed modes (single and dual pulse modes)
- Maximum pulse repetition rate: greater than 1000 Hz
- LED current in pulsed mode: 20 - 250 A
- Maximum electrical and optical power output during pulsed mode should be greater than 2 kW and 25 W respectively.
- Operating temperature & humidity: 5 Celsius to 40 Celsius & 10% to 85% RH. The LED should be resistant to hot and humid conditions.
- All the following parameters should be controllable.
 - Light intensity in continuous mode
 - Pulse trigger mode
 - Active trigger pulse edge

- Single or dual pulse mode (PIV)
 - Light pulse width
 - Light pulse power
 - Pulse delay
 - Pulse repetition rate
 - Pulse Width should be adjustable from 200 ns to 300 μs
- Delay between first and second pulses in dual pulse mode for PIV should be adjustable from 0 to 100 ms in steps of 1 μs or less.
 - Triggering: The LED light should have the option of both internal and external triggering in both continuous and pulsed modes.

2.2 Accessories

- An appropriate power supply for the above mentioned device is required.
- The power supply should be able to operate with the AC power points in India.
- Cables if required any, should also be included.
- Any software required for running the above device should also be included.

3 Quantity

One quantity is required in each of above described items.

4 Terms and conditions

- All the above items should be successfully installed.
- Basic training if required, must be provided to the students in IITKanpur for all the above items.
- Warranty of at least one year must be provided to the above described items.
- Prices should include other additional charges, i.e. freight, insurance etc.
- Maximum educational discount should be shown explicitly in the quotation.

5 Contact

Please send the applications to the following address:

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