



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
**Powai, Mumbai 400076.**

**PR No. 1000034684 Rfx No. 6100001571:**

**Detailed Technical Specifications of Particle Image Velocimetry(PIV) System**  
**(Qty: 1 Nos):**

<b>Sr. No.</b>		<b>Compliance (Yes/No)</b>
1	The PIV system(2D) should include the following components: 5W continuous laser, Light sheet optics, CCD camera, Lenses, Synchronizer, PIV Software, Tracer particles	
2	System needs to work in PIV mode in double pulse with continuous laser able to be modulated to generate double pulses for PIV mode	
3	Light sheet optics should have variable focus from 0.3 to 3 m.	
4	CCD or CMOS camera with double exposure (PIV) mode (at least 4 megapixels, 40 frames per second, with minimum 5 $\mu\text{m}$ sensor size and sensor well capacity of at least 20,000 e-)	
5	2 Lenses should be provided: 50mm standard lens for use in PIV mode and 100mm MACRO lens allowing the use of micro PIV mode	
6	Appropriate seeding particles with minimum 10 $\mu\text{m}$ size for use in water should be provided, including 2 $\mu\text{m}$ fluorescent particles for micro PIV mode	
7	Appropriate PIV software should be provided with multi-pass, multi-grid, window deformation techniques, batch processing and GPU support for acceleration and parallel processing.	
8	Warranty: 24 months without extra charges.	