TECHNICAL BID PROFORMA
Item Name: MICRO-PIV SYSTEM

1.0 **Bidder Eligibility Criteria:**

I	Bidder Eligibility Criteria-I (Public Procurement – Preference to Make in India)	Class I / Class II	Local Content value	Reference, Page No.
I	Only 'Class-I local suppliers' and 'Class-II local suppliers', as defined under DIPP, MoCI Order No. P-45021/2/2017-PP (BE II) dated 16th September 2020 and other subsequent orders issued therein.			
2.0	**Bidder Eligibility Criteria-II**	Compliance (Yes/No)	Reference Page No.	Remarks, If any
1	The bidder/OEM should have supplied at least 5 similar Micro-PIV/High-Speed lasers with Synchronizers to IITs, NITs, IISERs, CSIR Labs or other Govt. R&D organizations in the last 5 years, PO copies or installation certificates along with contact details of end users need to be submitted as proof of supply. IIT Madras reserves its right to verify the claims.			
2	The manufacturer should have IS09001 or similar certifications.			

3.0 Technical Compliance:
Technical specifications required for one unit of High-speed Laser with Synchronizer and Software package: -

SL NO	PARAMETERS	SPECIFICATIONS	Complied/ Not Complied	Ref. Page No.
1	High-Speed Laser	Pulse energy: 15 to 30 mJ @ 1 kHz Repetition rate: 100 Hz to 10 kHz Beam diameter : 4.5 mm to 6 mm Wavelength: 532 nm Laser system should be integrable with Zeiss AxioVert A1 microscope and FastCAM Mini AX-200 highspeed color camera.		
2	Synchronizer	Minimum 8 output channels and 2 input channels USB-enabled communication Resolution 200 to 300 picoseconds RMS jitter <= 60 picoseconds Impedance: 50 ohms. Synchronizer system should be integrable with Zeiss AxioVert A1 microscope and FastCAM Mini AX-200 highspeed color camera		

			Complied / Not Complied	Reference, Page. No.
3	2D Software Package and Analysis Modules	Software for image processing and analysis compatible with Windows 10 and lifetime license feature. Should be enabled to be installed on any number of computers. Free support through email and phone. Structured data storage (traceability); multi-parameter imaging, calibration, recording, processing, display and export in a single software. Cross-link software plugin for integration with MATLAB. Integrated display of 3D data, change of parameters during recording, live processing with instant feedback. Software modules should be integrable with Zeiss AxioVert A1 microscope and FastCAM Mini AX-200 high end color camera		
4	2D PIV Software Module	Image acquisition and analysis of 2D flow-fields using cross and autocorrelation methods and higher order correlation, online data analysis, vectorfield calculation, advanced post-processing, adaptive PIV routines for automatic optimization of PIV recording and processing parameters. Should be upgradable to 3D Stereo-PIV at a later stage.Uncertainty Quantification		
5	Fluorescent Tracer Particles	2-7 microns fluorescent tracer particles compatible with other components .Density : 1.04 to 1.06 gm/cc Excitation wavelength : 532 nanometers		
6	System Computer	Intel Xeon Multicore Processor or of similar configuration.16 GB RAM (minimum)512 GB SSD / 2 TB HDD. NVIDIA Graphics Card for GPU and Parallel Processing (or similar)Windows 10 Professional 64Bit. Monitor, Keyboard, Mouse		
7	Optical Fibers	Suitable optical fibers to interconnect the integrable components of Micro-PIV system to the microscope and high-speed camera; should be definitely provided ensuring it includes necessary adapters and connectors/couplers. Geometry:Spot light		

Sl.no	General Terms & conditions	Complied / Not Complied	Reference, Page. No.
1	The vendor must ensure that all the components of the integrable Micro-PIV system are compatible with the existing Zeiss Axio-Vert Al Microscope AND Fastcam Mini AX200 High-Speed Color Camera (MUST).		
2	Upon procurement, the vendor has to physically take care of the integration of the components with the existing microscope and camera, as specified in the last point. Failing to do so, the purchase will be cancelled with immediate effect.		
3	The system has to be set up with the experiment, testing and demonstration		
4	The vendor must provide installation and on-site training support		

5	Min warranty period 2 years.		
6	Technical support should be available preferably through Indian counterparts		
7	Training on this system should be provided free of any additional cost.		

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the above points with document proof as required. Failing which bidders will be technically disqualified)

SIGNATURE OF BIDDER ALONG WITH
SEAL OF THE COMPANY WITH DATE