

College of Engineering Trivandrum, Thiruvananthapuram

NOTICE INVITING TENDER

P7-ITCSR/4933/20/CET

23.09.2020

Tender No.

:07/20/P7/ITC &SR (SR) DRIP

Superscription

flow imaging and modelling set up with high speed camera ,photo modeler and camera control system

Last date and time of receipt of tender

on the website

: 16/10/2020 3 PM

(www.etenders.kerala.gov.in)

Date and time of opening of tender

: 19/10/2020 11 AM

Date upto which the rates are to be firm

: 30/04/2021

Bidding fee

: Rs.1770/- (Rs.1500/-+18%GST)

EMD

: Rs.8000/-

required

Address of the Officer to whom hard

: THE PRINCIPAL, COLLEGE OF ENGINEERING

copy is to be

TRIVANDRUM, THIRUVANANTHAPURAM-695016, KERALA

send.

GSTIN:32AAAGC0358L1ZP

ITEM DESCRIPTION

Specification of flow imaging and modelling set up with high speed camera ,photo modeler and camera control system

Sl. No.	Items	Qty
	<p>Flow imaging and modelling setup with High speed camera, Photo modeler and camera control system</p> <p>The facility is envisaged as a compact data capture setup for flow modelling consisting of high speed camera, Photo modeller software and camera control system for data acquisition and analysis. Appropriate hardware and software items mentioned under subdivisions a, b, c, d and e may be included, so that the entire setup has the capability to extract data from flow modelling studies in laboratory flumes</p>	
	<p>a. Photo Modeler Premium photogrammetry tool for terrain capture and 3D image regeneration -1No.</p> <p>Extracts Measurements and Models from photographs taken with an ordinary camera. A cost-effective way for accurate 2D or 3D measurement, photo-digitizing, surveying, 3D scanning, and reality capture, Smart Match, dense surface modeling (DSM), motion tracking, idealize photos, geographic systems support, and UAV/drone support. Surface scans, Track positions over time, Volumes / Cut and Fill DEMs, contours, ortho-photos, Idealizing photos, Integrate laser scan data, Time-based motion measurement, Geographic coordinate systems, Pattern Capture Add-on Calibration square of dimension required for effective reproduction of the exact geometrical parameters. Minimum print out of calibration square in A4 and A3 papers and suitable calibration for the same using the camera supplied with total system.</p>	
	<p>b. Compact High speed camera -1No.</p>	

1.

- 0.1 to 0.05-sec. AF response with 100 to 315 focal-plane phase-detection AF points
- 24mm to 200mm equivalent optical zoom or better
- Up to 24fps continuous shooting with AF/AE for up to 100 to 200 shots
- Approx. 17 to 20.1 effective megapixels
- ZEISS® Vario-Sonnar® T* Lens or better
- Up to 960fps super slow motion
- ISO SENSITIVITY
- Auto (ISO125-12800, selectable with upper/lower limit)
- A Class 10 or higher 128GB SDHC/SDXC memory card is required.

c. Particle Image Velocimetry and motion tracking system with required software - 1set

1 No.

1. Laser light with continuous power output of 100mW to 300mW with suitable power supply and cooling system
2. Cylindrical lenses and proper optics for creating sheet laser
3. Proper particle disperser for flow visualization in water tanks
4. Software for plotting flow velocity vector and image post processing.

Motion tracking system with software

1. Floating buoy type object for flow tracing
2. Image processing and particle tracking software for determining the flow velocity of stream
3. Motion tracking to be done with camera@240-480fps

d. Support structures for performing test- 1Set

1. Camera tripod
2. Camera holding platform which can vary in height and position using rust free aluminium extrusions
3. Holding fixtures for laser and optics
4. Specialized Laser Safety Goggles
5. A suitable lighting system with at least 2 lights and one curtain for effective illumination. The LED should be flicker free for slow motion capture.

e. Intel i5 based LAPTOP-1 No.

8GB RAM, 400GB plus SSD, mouse, keyboard, Separate graphics processor with 2GB of graphics memory and Windows 10 original

Terms and conditions

1. The experimental data acquisition setup will be evaluated as a single item
2. The items has to be supplied to the PG Hydraulics lab and to be demonstrated on data capture, analysis and output generation

satisfactorily

3. Warranty: 3 years(for all items a,b,c,d and e)

General conditions

- 1.The price quoted should be inclusive of all taxes, freight charges, unloading charges, installation and commissioning charges and should be furnished unambiguously.
 - 2.Payment: 100 % after successful supply, installation, commissioning and demonstration.
 - 3.Delivery Period: Maximum Delivery period will be 60 days from the date of receipt of supply order.
 - 4.Agreement as per NIT 2 in Rs.220/- Kerala Stamp Paper and tender form should be uploaded.
 - 5.5% security deposit along with agreement should be furnished within a month/fortnight from the date of receipt of supply order.
 - 6.Date of opening of tender: In case the proposed date declared as holiday, the tender will be opened on the next working day.
 - 7.After E-Tendering the hard copy of all documents such as agreement, brochure, should be submitted before the opening date.If exemption is needed from submitting the tender fee etc...., copy of the order exempting should be attached with the above.
 - 8.Only GST registered firms can participate in the Tender.The firm under composition scheme must mention the words "Composition taxable person" in their quotation and should submit proof for that.
 9. Warranty:3 Years
 - 10.The items should be delivered at the door without loading,unloading,transorting charges.They should be erected/installed and demonstrated free of cost.
- NB: The Tender procedure will be made as per Rules mentioned in the Revised Store Purchase Manual.

The bidders should participate this tender through E-Tendering System. Tender cost and EMD should be submitted only through online. For more details Contact Ph.0471 2515572

Sd/-

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