

**Department of Architecture Town and Regional Planning**  
Indian Institute of Engineering Science and Technology, Shibpur  
Howrah-711 103

Enquiry No. 012/IIEST/ATRP/WEB TEND/2019

Date: January 18th, 2019

To,

All the Enlisted Suppliers/Dealers/Manufacturers

Sealed quotations are invited for supply of the following Equipment for the Dept. of Architecture Town and regional Planning, IEST, Shibpur. The sealed quotations should be addressed to the Head of the Department indicating enquiry no. with date on the top of the sealed envelope. The sealed quotations should be submitted to the office of the Department on any working day within 03/02/2019 till 4.00 P.M.

**PORTABLE MULTIFUNCTION INSTRUMENT FOR RADIANT HEAT,  
VELOCITY, TEMP & HUMIDITY**

**SPECIFICATION OF MULTI FUNCTION INSTRUMENTS**

**1.Type:** Battery operated Portable Multifunction Instrument

**2.Measured Parameters by instrument:**In Instruments can provision for connect different probes for future requirements, like Temperature, Differential Temperature, Humidity, Differential Pressure, Air Velocity, Volume Flow, IAQ(Temo+Humidity+CO<sub>2</sub>), Comfort level measurement, Radiant Heat with different probes.

**3.Features of instrument:**

- \* Should have colour graphic, illuminated LCD display
- \* Should show all the parameters reading at time, selectable number of reading on screen, Multiple screens for individual probe for easy view
- \* Provision for trouble free & fast navigation
- \* System should be operated both from Mains & Batteries, Battery Rechargeable, Full charge should run minimum of 12 hrs operation uninterrupted.
- \* System should have sufficient internal memory (min 50,00,000 measurements value)
- \* Provision for data transfer to PC / Laptop.
- \* System should be configurable & up gradable as per the user requirement.
- \* System should be smart type for easy recognition of inputs connected to it.
- \* Provision for connection of at least two or more several types of sensors at a time
- \* Should be able to measure Air velocity with hot wire, Vane probe & Pilot tube to cover wide measuring range
- \* Should have Zero error display with digital probes.
- \* Should have magnetic mounting for easy operations
- \* Should have interface facility with PC via USB port, provision for ONLINE measurement on PC via USB port.
- \* Should have option for time mean & multipoint mean

- \* Instrument should be programable and logging data in site without PC connection.
- \* Integrated WBGT-measurement based on ISO 7243 / DIN 33403

**4. Thermal flow velocity probe (hot wire) Ø 10 mm with temp- humidity & absolute pressure, bendable by 90° with telescope (Max 1000mm) – Qty 3 Nos.**

- \* Range velocity: 0 to 20 m/s, Accuracy -  $\pm(0.03 \text{ m/s} + 4\% \text{ of m.v.})$
- \* Temperature tolerance: -20 to 70 deg C, Accuracy -  $\pm 0.5 \text{ }^\circ\text{C}$
- \* Range Humidity: 0 to 100 %RH, Accuracy -  $\pm(1.8 \text{ %RH} + 0.7\% \text{ of m.v.})$
- \* Range Pressure: +700 to +1100 hPa, Accuracy -  $\pm 3 \text{ hPa}$
- \* Cable length – 20 mtr – Qty 2Nos.
- \* Sensor: replaceable
- \* Calibration Certificate for all parameter.


**5. Globe probe Ø 150mm, Class 1 TC Type K, for measuring radiant heat, Temp range 0-120 deg C with Calibration Certificate**

**6. Lux probe: Range - 0 to +100000 Lux**

**General points:**

1. Warranty of whole instrument should be minimum 2 years.
2. Portable carrying case for instrument & probe with proper safety arrangement.
3. Tripod should supply with instruments for hold different probe at a time in site.
3. Certificate of calibration for velocity, Temp-Humidity & Globe by a standard agency or ISO.
4. Service and support for the instrument available in India for next 5-7 years.
5. Service manual & trouble shooting details to be provided.
6. Commissioning / Demonstration and training for two persons for operation of this equipment at site.
7. Manufacturer should have own service & calibration facility in India.

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(Prof. Parthasarathi Mukhopadhyay)

Head  
Dept. of Arch. T & RP

Copy forwarded for information to:

Institute Website, IEST, Shibpur, Howrah-711103

For details the vendors may contact Ar. Sankhanil Das (Mobile No. 9477528826) during working hours.