INDIAN INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING

Enquiry letter for purchase of SMPS

Sub: Quotation for supply, installation, commissioning and training of Scanning Mobility Particle Sizer (SMPS)

Reference: IITK/CE/2015/1029 **Dated: October 1, 2015**

Sir / Madam,

With reference to the subject mentioned above, you are invited to submit the quotation in a sealed cover. Configuration/Specification are given below:

Specifications of Scanning Mobility Particle Sizer:

Principle of operation: The Scanning Mobility Particle Sizer is based on the principle of the mobility of a charged particle in an electric field. Particles entering the system are neutralized (through a bipolar diffusion charger) such that they have a Fuchs equilibrium charge distribution. They then enter a Differential Mobility Analyser (DMA) where the aerosol is classified according to electrical mobility, with only particles of a narrow range of mobility exiting through the output slit.The particle flow is injected at the outside edge of the DMA, particles with a positive charge move across the sheath flow towards the central rod, at a rate determined by their electrical mobility.This mono-disperse distribution then goes to a Condensation Particle Counter which determines the particle concentration at that size.

SMPS Settings and Requirements High resolution data	64 channels/decade, total ≥165
Broad size range	from 2.5 nm to ≥ 1,000 nm
Wide concentration range	minimum up to 10^7 particles/cm^3
Data averaging (Scans per Sample)	1 to 999, user-selectable
Aerosol Flow rate	0.2 to ≥ 3 l/min, user-adjustable
Sheath Flow rate	2 to 30 l/min, user-adjustable
Scan time	< 10 sec
Working Fluid	alcohol
Operating temperature	10 to 35°c
Storage temperature	0 to 40°c
Aerosol-inlet temperature	10 to 35°c
Humidity	0 to 90%, noncondensing
Pressure	75 to 105 kPa
Operation	system should be capable of using with computer and without computer
Aerosol neutralizer	Bi-polar diffusion charger/ Radioactive/X-Ray

Data Logging

Via attached Pc running Microsoft® Windows® (Windows® 7 32/64 bit compatible) as well as inbuilt data storage should be possible

Display

LCD display on DMA controller and CPC

Communications

RS-232, USB, and Ethernet for full control

Inlet accessory

Single-stage, inertial impactors (choice of three impactors, each with a different cut size)

Power Requirements

Instrument should be capable of working at Indian voltage standards.

Support/Service capability

Supplier should have supplied min. 5 systems in India and provide details of their Engineers capable of after sales Service support.

The quotation should have the following details:

1. Indicate item-wise pricing on FOB/CIF basis
2. Technical specifications in detail
3. Technical bid and Price bid to be sealed separately (Two-bid system)
4. Warranty period
5. User list of similar system supplied in India.
6. Maximum educational discount considering end use for research and teaching
7. Payment terms
8. Proprietary Certificate, if applicable
9. Support/Service capability in INDIA
10. Comprehensive AMC prices should be quoted separately
11. In case of CIP/CIF price, insurance from your w/h to our w/h in IIT Kanpur must be arranged by the bidder/supplier
12. Any other relevant details

Terms and condition:-

1. Sealed Quotation must reach the undersigned on or **before October 10, 2015 (Extended up to October 30, 2015)**.
2. Prices should be in USD and CIF Delhi.
3. Our Institute is partially exempted from custom duty.
4. The final selection will be made based on weights given to technical merit and pricing as 70% and 30% each, respectively.

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