

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
**Department of Earth Sciences**

**Enquiry No: ES/IS/2015-16/28**

**Date: 17.12.15**

**Subject: Quotation for supply of PM 2.5 & PM1 Dust Sampler as mentioned below.**

With reference to the subject mentioned above, you are invited to submit the quotation in a sealed cover in order to reach us by January 5, 2016 in the form of a hard copy to the address mentioned below. If you have any questions please call Dr. I. S. Sen at 2596440, email: [isen@iitk.ac.in](mailto:isen@iitk.ac.in).

**Technical Specification for PM2.5 Dust Sampler:**

- The instrument is required to collect the ambient particulate matter of aerodynamic size less than 2.5 micron
- The system should be designed to provide a clean aerodynamic cut-point for particles greater than 10 microns.
- The airflow should be measured across a critical orifice and directly in  $1\text{m}^3/\text{hr}$ . Its flow metering calibration setup should be traceable to National standards.
- The instrument should have low noise and negligible impact of voltage fluctuations.
- The sampler should be automatically switched off, if the flow rate is reduced below  $1\text{m}^3/\text{hr}$ .
- The dust sampler should have in-built sensors to measure meteorological parameters like air temperature and barometric pressure. The instrument is required to have a memory based data logger that can record the meteorological parameters.

**Optional Items**

- Filter papers
  - ✓ The size of the filter paper should be near about 47mm diameter.
  - ✓ The filter paper should be chemically inert.
  - ✓ The filter paper should have low tare mass for accurate gravimetric analysis.
  - ✓ The filter paper should be heat treated to remove organic traces.
  - ✓ Required 200 sealed packets of filter paper.

**Technical Specification for PM1 Dust Sampler:**

- The instrument is required to collect the ambient particulate matter of aerodynamic size less than 1 micron.
- The instrument should have a constant sampling rate of 10 liter per minute to reduce filter choking.
- The sampler should have a maintenance free brush-less pump with minimum noise.
- The system should be designed in such a way that there is no chance of losing volatile fraction of PM1.
- The sampler should be unaffected by fluctuation in voltage supply.
- The sampler should have an inbuilt dry gas meter to record the total volume of air sampled.
- The instrument is required to have an automatic sampling control unit.

**Optional Items**

- Filter papers
  - ✓ The size of the filter paper should be near about 47mm diameter.
  - ✓ The filter paper should be chemically inert.
  - ✓ The filter paper should be heat treated to remove organic traces.

- ✓ Required 200 sealed packets of filter paper.

**Terms and Conditions:**

- 1) **All quotation will be rejected, if they are not providing both the dust sampler.**
- 2) Maximum education discount, if any should be offered.
- 3) Validity of quotation should be at least for 60 days.
- 4) Prices should be quoted on FOB (Free on Board) only (if imported).
- 5) Normal payment terms for the Institute will be applicable (90% on delivery of the items and the remaining 10% after satisfactory installation/ inspection).
- 6) Quotation should carry proper certifications like agency certificate, proprietary certificate, etc.

Kindly write the inquiry number on the top of envelop.

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