



Telephone :

EN

Department of Civil Engineering

Indian Institute of Technology, Madras

I.I.T.P.O., MADRAS - 600 036.

Ref. No.

CIE	SIVA	2014	PM	SPLX
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Date : 17-12-2014

Dear Sirs,

DUE DATE : 26-12-2014

1. Quotations are invited in duplicate for the various items shown below / overleaf / enclosed list.
2. The Quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate contract. Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers)
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. Local Firms : Quotations should be for free delivery to this Institute. If Quotations are for Ex-Godown, delivery charges should be indicated separately.
7. Firms Outside Chennai : Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If-Ex-Godown, packing, forwarding and freight charges must be indicated.
8. The rate of Sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to Non-Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificates will be issued at the time of final settlement of the bill.
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. Payment : Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.

Details as per enclosed list.

Yours faithfully

For HEAD OF THE DEPT.

*Strike out whichever is not applicable.

SPECIFICATION FOR PARTICULATE MATTER NUMBER AND CONCENTRATIONS MEASURING INSTRUMENT

The system should be designed and manufactured under ISO-9001 and should comply with most of international regulatory and safety requirement. The instrument should be portable with suitable carry case for safe transportation of the equipment. The system should be compatible with the Microsoft Windows operating system for data acquisition and data analysis.

Technical Specifications:

1. **PM mass and number concentrations:** Instrument should be capable of measuring particulate matter mass and number concentration in the ambient and indoor environments. Option should be available for measuring both mass and number concentration simultaneously or separately. Also, facility to collect the particulate matter on filter for further chemical characterization. Filter paper used for instrument should be available in Indian market.
2. **PM mass concentration range:** Instrument should be capable of measuring PM10, PM2.5 and PM1 mass concentrations
3. **PM number concentration range:** Instrument should be capable of measuring wide range of particulate matter ranging from 10 nm to 10 micron.
4. **Instrument working principle:** Light scattering/electrical/optical or combination of any two.
5. **Data storage:** Onboard memory with USB storage option.
6. **Measurement intervals:** 1 minute
7. **Digital display:** PM mass/number/graphical display.
8. **Communication:** Bluetooth/USB/RS232
9. **Power supply:** Regular power supply with proper adaptor. Instrument should also operate with Li-Ion battery (minimum battery backup of 8 hours). Provision for internal charging facility.
10. **Operating conditions:** Instrument should function without any problem under Chennai weather conditions.
11. **Instrument calibration:** Frequency of instrument calibration should not be less than 8 months.
12. **Warranty period:** Minimum warranty period should be one year.

Accessories:

1. **Filter paper:** Specification of the filter paper and cost per pack.

