



Indian Institute of Technology Madras  
Chennai-600 036  
Department of Civil Engineering

Ref No: CIE/Benny/2015/ Meters/SPLX  
To

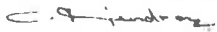
dated 10.09.2015

DUE DATE : 09.10.2015

Sir/Madam

1. Quotations are invited **in duplicate (Two bidding covers)** for the **item/s shown as per enclosed Specifications.**
2. The quotations duly sealed and superscribed on the envelope with the enquiry reference No. & due date should be addressed to the **Head of the Department, and contain in 2 bid system i.e. Technical bid and Commercial bid in two separate envelopes and these two envelopes should be enclosed in a Single envelope so as to reach on or before the due date.**
3. The quotation should be valid for **(60) Sixty days from the due date and period of delivery time** required.
4. 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, submitted free of charge and collected back at the suppliers expenses.
5. 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.
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. Goods should be **supplied by carriage paid and insured.**
8. Goods shall not be supplied **without an official supply order.**
9. PAYMENT: The mode of payment should be mentioned.
10. Rate of Sales/General Taxes and percent of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Wherever this is not done, no claim for any taxes will be admitted at any stage and 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. The Price should be quoted without Excise Duty, Since IIT Madras is exempt from payment of Excise duty.
11. Warranty period: Explicitly Warranty period is to be given by the firms.

Yours sincerely

  
For Head of the Department

# Specifications for calibrated meters for light and heat measurements:

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The vendor should supply the specified number of the equipments listed below to Civil Engineering department, IIT Madras. The quotation should be valid for four months. The items should be delivered within three months of issuing the purchase order.

The equipments should work out of the box without complex setup and installation. All the meters should be factory calibrated and should have a suitable display for directly reading the values. The meters could be either standalone portable meters or in the form of probes connected to a datalogger. It should also be possible to record and store the data for up to one hour on a USB stick or any other secondary storage device. All the necessary accessories should be provided including amplifiers and transmitters, datalogger with required number of channels, cables, batteries and software. If the sensor probes are separately connected to the datalogger, the cable length should be at least 1.5 m.

## **1. Outdoor Lux meters - (4 numbers)**

The outdoor lux meter should provide the illuminance in lux. It should be capable of reading lux values in the range 0 to 100,000 lux with a minimum accuracy of 5% under standard operating conditions outdoor.

## **2. Indoor Lux meters - (4 numbers)**

The indoor lux meter should provide the illuminance in lux. It should be capable of reading lux values in the range 0 to 5,000 lux with a minimum accuracy of 5% under standard operating conditions indoor.

## **3. Heat flux sensors - (4 numbers)**

The heat flux sensor should be able to measure the flow of heat through walls and surfaces in Watts/m<sup>2</sup>. For an example, see

[http://www.hukseflux.com/product\\_group/heat-flux-sensors](http://www.hukseflux.com/product_group/heat-flux-sensors)

It should have an accuracy of at least 5% under standard operating conditions.

## **4. Air Temperature Sensors - (4 numbers)**

The temperature sensor should read and display the temperature in degree Centigrade. It should work in the range 5 to 65 deg Centigrade.

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