

**Civil Engineering Department**  
**IIT Delhi, Hauz Khas, New Delhi -16**

January 21, 2015

Sealed Quotations are invited in Indian Rupees (INR)/USD/EURO from well-known companies/distributors or their authorized Indian representatives for supply of following equipment's conforming the technical specifications and prescribed terms & conditions as given hereunder. Interested parties are required to submit their quotations.

The bid should be addressed to Dr Supratic Gupta and submitted/sent by post at Department of Civil Engineering, IIT Delhi, Hauz Khas, New Delhi – 110016 latest **by 1:00 PM on February 4, 2015.**

S.NO	Product	Description
<b>I. DATA ACQUISITION SYSTEM</b>		
<b>1</b>	<b>Channels</b>	
1a	<b>Analog Channels</b>	3 Load Cell – (Full Bridge) 24 Strain gauge (Quarter Bridge) 4 Displacement sensor ( half Bridge) 2 Temp sensor 2 LVDT -non strain gauge
1b	<b>Form Factor</b>	Compact & stand alone (Both with and Without computer possibility)
1c	<b>Relay Output</b>	1 latching relay, contacts (max: 30Vdc, 1A)
1d	<b>Counter Channels</b>	32 bit 8 counter channels
1e	<b>Serial Channels</b>	12 inputs, to connect serial data output of smart sensors.
<b>2</b>	<b>Data Storage</b>	<b>Internal Store</b> Capacity: 128MB = approx. 10,000,000 data points, Removable USB store device can be used
<b>3</b>	<b>Accuracy :</b>	0.1 %
<b>4</b>	<b>Sampling speed:</b>	25Hz or above
<b>5</b>	<b>Effective resolution:</b>	18 bits or above
<b>6</b>	<b>Linearity:</b>	0.01%
<b>7</b>	<b>Common mode rejection:</b>	>90dB
<b>4</b>	<b>Line series mode rejection:</b>	>35dB
<b>5</b>	<b>Inter-Channel Isolation:</b>	100V (relay switching)
<b>6</b>	<b>Alarms:</b>	Condition: High, low, within range and outside range
<b>7</b>	<b>Communication Interfaces</b>	Ethernet Port, USB Port & RS232 Port,
<b>8</b>	<b>Sensor Excitation (Supply)</b>	Analog channels: selectable 250µA or 2.5mA current source General Purpose: Switchable 12V and 5V regulated supply for analog sensors (max 25mA)
<b>9</b>	<b>Real Time Clock resolution</b>	200µs Accuracy-1 min/year (0°C to 40°C), 4 min/year (-40°C to 70°C)
<b>10</b>		

	<b>Network (TCP/IP) Services</b>	Uses Ethernet and/or Host RS232 (PPP) ports  Command Interface: Access the ASCII command interface of the Datalogger via TCP/IP  FTP Server: Access logged data from any FTP client or web browser  FTP Client: Automatically upload logged data direct to an FTP server
11	<b>Display and Keypad</b>	Should have LCD display on the instrument and further facility to interface external display unit
12	<b>Keypad:</b>	Easy scrolling and function execution.
13	<b>Display Functions:</b>	Channel data, alarms, system status.
14	<b>Status LEDs:</b>	Notification should be provided by LED
15	<b>Power Supply</b>	<b>External voltage range:</b> 10 to 30Vdc <b>Internal battery:</b> 6Vdc 4Ahr lead acid <b>Peak Power:</b> 12W (12Vdc 1A)
16	<b>Average power Consumption</b>	Using 12Vdc external power source- 500mW at sampling rate of 5 sec
17	<b>Physical and Environment</b>	Light weight <ul style="list-style-type: none"> <li>• Operating Temperature range: -45°C to 70°C</li> <li>• Should be of Compact size</li> <li>• Should be Cost effective method of adding analog channels to a data logger</li> <li>• Should work on extremely low power as 1 W</li> </ul>
18	<b>SIGNAL CONDITIONER:</b>	Signal Conditioner for using strain gages in quarter bridge configuration should either be integral or provided separately. A few channel for half bridge
19.	<b>Software</b>	All necessary software preinstalled in the Laptop Computer and Extra Softcopy. Free Software Support/upgrade for Minimum 5 years.
20.	<b>Connection</b>	All necessary Connection
21.	<b>Trolley/ Enclosure</b>	All units has to be put in a enclosure with wheels
22.	<b>UPS/ battery back up</b>	300 Watts /500 VA, Input 230V /Output 230V
23.	<b>Lap Computer</b>	Branded laptop with similar or better specifications: 4th Gen Intel Core i3- 4GB processor, RAM- 1TB HDD- 15.6 Inches

### Terms and Conditions:

1. The **Technical Bid** with detailed specifications and **Commercial Bid** for financial details should be in two separate sealed envelopes marked as “**Technical Bid**” and “**Financial Bid**”, put into one larger envelope and marked as “**Quotation for Data Acquisition system**”. All envelopes should bear the title of the item quoted and the content, failing which the quotation shall be rejected.
2. Vendor should attach a letter from the manufacturer/their product principal permitting to quote for this tender at IIT Delhi for authenticity of dealership/agency and the dealer should be an authorized service provider. Quotations without authorized service provider certificate will be rejected.
3. Vendor should provide a certificate from their product principal clearly mentioning on-site comprehensive warranty at least for one year for the equipment. Vendor may also quote for additional two year additional warranty charges separately as an optional. item

4. The Vendor should have minimum experience for selling similar kind of equipment should be at least for 5 years.
5. If the item quoted is proprietary in nature, please enclose proprietary certificate from the principals stating, "Certified that \_\_\_\_\_ is a proprietary of M/s \_\_\_\_\_ and no other manufacturer makes this item."
6. Special discount/rebate wherever admissible keeping in view that the supplies are being made for educational purpose in respect of Public Institution of national importance may please be indicated.
7. Validity of the quotation should be at least 90 days from the closing date of this tender.
8. Applicable taxes, duties, delivery period, payment Terms and Conditions should be clearly mentioned.
9. Preferred modes of payment for foreign agents are through Letter of Credit (L/C) or as payment on delivery. For Indian agents, typically payment is on delivery. The payment will be made on the norms and conditions of IIT Delhi
10. All prices quoted should be FOB/CIF New Delhi.
11. Vendor should attach the relevant product brochure/leaflet for the model quoted.
12. A signed, stamped compliance sheet should be provided along with the technical bid, the specifications format for compliance sheet should be similar to the given specification sheet.
13. Supplier/Vendors will do the installation of Equipment at IIT Delhi without any additional cost.
14. The power cables, power plug used for equipment supplied should be compatible as per Indian power supply standards i.e Single phase 220 - 240 Volts AC, 50Hz.
15. **The institute authority /purchase committee reserves the right to accept or reject any bid or all quotations without assigning any reasons whatsoever. The purchase committee also has the right to increase/decrease quantity of items/optional accessories/consumables as per the requirement and available budget.**