# Department of Civil Engineering Indian Institute of Engineering Science and Technology, Shibpur

(Formerly Bengal Engineering and Science University, Shibpur)

February 19, 2018

# **Notice Inviting Quotations**

## CE/CPDA/KKC - P1/2018

Sealed tenders are invited by the Civil Engineering Department, Indian Institute of Engineering Science and Technology, Shibpur, Howrah-711103 for the supply of the following item for Geotechnical Engineering Laboratory under CPDA Grant-in-aid (2014-2017) of Prof. Kalyan Kumar Chattopadhyay

Tender Documents containing details of the items and terms and conditions may be downloaded from the institute website and completed bidding documents are to be submitted to the Head, Department of Civil Engineering, Indian Institute of Engineering Science and Technology, Shibpur; Howrah-711103 or dropped into the Tender Box kept in the Department within February 27, 2018 (4:00 pm).

The intended vendors/manufacturers are requested to submit technical and financial bid in separate sealed envelopes within stipulated time.

The procurement is for the purpose of research activity only vide Circular No. 170F/2017-18/194 dated 09.02.2018 of IIEST, Shibpur

For any clarification you can contact to Prof. Kalyan Kumar Chattopadhyay (9433090560).

Enclosures Section-I: General conditions and Important Instructions for Bidders.

Section-II: Specification of the Items.

Prof. Sudip Kumar Roy Professor & Head, Department of Civil Engineering IIEST, Shibpur

Name of Product:

1) Multichannel Universal Datalogger

# Department of Civil Engineering Indian Institute of Engineering Science and Technology, Shibpur

(Formerly Bengal Engineering and Science University, Shibpur)

# Section I: General Conditions and Important Instructions for Bidders

- 1. Interested parties/vendors are requested to download the tender documents with detailed specifications from the institute website (<a href="www.iiests.ac.in">www.iiests.ac.in</a>)
- 2. It is necessary to submit the original tender documents along with technical/price bids in separate sealed envelopes to the Head, Department of Civil Engineering, Indian Institute of Engineering Science and Technology (IIEST), Shibpur; Howrah-711 103
- 3. Bidders are to abide by the terms and condition and submit this tender document in original duly signed with acceptance of the terms and conditions.
- 4. Last date of receipt of tender is February 27, 2018 (4:00 pm). Tenders received at late will not be accepted under any circumstances. Tenders will be opened in the Seminar Hall or in any other place of the Civil Engineering Department, on the same day at 4:15 pm. In case the Institute remains closed on the said date, tenders will be received and opened on next working day at same time.
- 5. The Price Bid should clearly mention the price including the following: Transport cost, Toll Tax, Parking□, All taxes (especially GST), duties, levies applicable.□
- 6. DGS & D rate contract price will be prefered wherever applicable.
- 7. The equipment is to be supplied at the Department of Civil Engineering, Indian Institute of Engineering Science and Technology between 11.00 am and 4.00 pm from Monday to Friday except holidays. The bidders will be responsible for any breakage, damage or defect in the equipment detected subsequently.
- 8. Period of delivery of equipment should be within seven days from the date of issue of Purchase Order.
- 9. Bills in triplicate should be presented for payment within 7 days of supply of the equipment. No advance is paid for execution of the order. The Purchase Order No. is to be noted on both Challan and Bill. All bills are to be accompanied by order copies and Challan receipt.
- 10. Payment will be made on submission of Proper Bills, Challans etc, by A/C Payee Cheque and no cash payment will be made under any circumstances.
- 11. All payments are subjected to statutory deductions as and when applicable.
- 12. Tender is to be kept valid for acceptance for 3 months with effect from the last date of issue of the tender without any modifications in its terms and conditions.
- 13. Documents mandatory to be submitted with the tender:
  - Tender Documents, General Conditions and Important Instruction in original duly signed by the Proprietor/ Partner/ Director of the company as a token of acceptance of Terms and Conditions of Tender.
  - Latest Income Tax, GST, Professional Tax clearance certificates and copy of valid Trade License
  - Bid according to specifications.

I/We accept the above terms and conditions.

• Certificates and Literature in support of the item.

| <del>-</del>                         |  |
|--------------------------------------|--|
|                                      |  |
|                                      |  |
|                                      |  |
|                                      |  |
|                                      |  |
|                                      |  |
|                                      |  |
| Cionatura of wandon with Data PrCaal |  |
| Signature of vendor with Date & Seal |  |

## Name of the Equipment

Multichannel Universal Datalogger

## **Specifications**

# **Sensor Supported: -**

Load cell, Strain gauge(120, 350 & 1000 ohm), 6 component force sensors, LVDT, Thermocouple, RTD, Thermister, Pressure cell, Torque sensor, IR sensors, Laser distance sensors, proximity switches, RPM sensors, should accept current, voltage and frequency signals etc.

# **Analog Channels:**

• Max 15 analog channel (expandable to 200)

# **Digital Channels:**

Digital Input/Outputs

- 8 bi-directional channels
- Input Type: 8 logic level ( max 20/30V )
- Output Type: 4 with open drain FET (max: 30V, 100mA), 4 with logic output
- High speed (10MHz) counter input channel: 4 nos

# **Relay Output**

• 1 latching relay, contacts ( max: 30Vdc , 1A )

# **Input Levels**

Input voltage: ±30VdcInput current: 0-30mA

## **Resolution:**

• 18 Bit or better

# Alarms:

- Condition: high, low, within range and outside range
- Delay: optional time period for alarm response
- Actions: set digital outputs, transmit message, and execute any data taker command.

# Data Storage:

Internal Store

- Capacity: 10,000,000 or more data points
- External USB memory stick support for additional memory

#### Communication Interfaces:

## **Ethernet Port**

- Interface: 10BaseT (10Mbps)
- Protocol: TCP/IP, Modbus (Master & Slave)

## **USB Port**

• Interface: USB 2.0

Protocol: ASCII command

## **Host RS232 Port**

- Speed: 300 to 115,200 baud (57,600 default)
- Protocols: ASCII command, TCP/IP (PPP)
- Modbus (Master & Slave), Serial Sensor

## **Serial Sensor Port**

- Interface: RS232, RS422m, RS485
- Protocols: Modbus (Master & Slave), Serial Sensor
- Should support SDI12 communication

## Clock

Inbuilt real time clock

## **Math Channels**

 Cross channel mathematics with algebraic, trigonometric, calculus, statistical calculation functions.

# **Display**

- Digital back-lit LCD display
- Keys for function/operation set up

## **Protection**

IP54 or better

# **Operating Temperature**

-45degC to 70degC

## **Power**

 Inbuilt rechargeable battery. Should run the logger continuously for more than 10days with a single charge

# Operation

- Should work as a standalone datalogging device without the need of connecting to a PC
- Realtime operation should be available when connected with the PC

### **Software**

- Easy to operate Webserver based software
- Should import the data through .CSV files
- Graphical Data trending
- Chart list of acquired data
- Should have different mimic creation option for the front end data monitoring
- Should support networking and FTP features. The datalogger should be connected to any LAN network and should be accessed from remote PC connected in the same network
- Should support wireless data transfer via external GSM/GPRS modem.