

Indian Institute of Technology  
Department of Civil Engineering  
NOTICE INVITING QUOTATION

NIQ No. IITD/Civil (Store)/2012-13

Date:01-06-2012

Department of Civil Engineering wishes to purchase a digital Data Acquisition System and Software as per the specifications given below. Technical & Commercial bids (in two separate sealed envelopes marked - Quotation for Data Acquisition System & Software) should reach the address at the bottom **by 5-00 PM on 15-06-2012**. Companies who have already sent their quotations in response to the previous NIQ floated on 18-05-2012 need not respond to this notice.

Data Acquisition (DAQ) System Specifications:

- The data acquisition system should be based on a PXI platform.
- The user should be able to synchronize the acquisition system with a trigger signal conveyed through a BNC cable, from the external port of a pulser circuit with pulse repetition frequency of about 5 kHz.
- The data acquisition system should be able to acquire and generate ultrasonic signals used for non-destructive testing of solids with typical frequencies of 250 kHz.
- The acquisition system should have sufficient sensitivity to acquire ultrasonic signals with voltage ranging between a few millivolts to few volts.
- The acquisition system should have an embedded controller with the following configuration:
  - a) 2.53 GHz Intel Core 2 Duo T9400 dual-core processor with 1 GB/s system bandwidth and 250 MB/s slot bandwidth;
  - b) 4 GB (1 x 1 GB DIMM) 800 MHz DDR2 RAM standard;
  - c) 10/100/1000BASE-TX (Gigabit) Ethernet, ExpressCard/34, 4 Hi-Speed USB, GPIB, serial, monitor connection and other I/O;
  - d) 32 bit Windows 7 OS and drivers already installed; hard-drive-based recovery
- The digital sampler unit should have sampling frequency of about 2 MHz or above. The channels should be compatible with BNC input cables from the ultrasonic transducers.
- The data points acquired by the system should be portable to .csv/ASCII/binary formats. The number of data points acquired in a particular time window should corroborate with the sampling frequency of the acquisition system.
- Minimum number of analog input channels = 2
- Minimum number of analog output channels = 2 with comparable output frequency i.e., 2 MHz.
- If system does not carry BNC connectors, a proper intermediate noise resistant connector system should be provided for communication with the BNC trigger, input and output cables. BNC compatibility is a must since the ultrasonic NDT system is based on BNC cables.
- A compact chassis should be provided to accommodate the controller and the data acquisition module.
- The offer should include a single seat academic license for a GUI based programmable software that can be installed in the controller and used for seamless data acquisition and control of the hardware.

## Terms & Conditions

- A compliance sheet in tabular form should be provided by the vendor showing that the instrument clearly conforms to the above mentioned specifications. If a compliance sheet is not furnished, the bid would be subject to rejection.
- Separate technical and commercial bids are required to be submitted in separate sealed envelopes.
- Please quote prices at FOB basis in case of prices in foreign currency.
- Quotations in Indian rupees shall clearly mention installation & Delivery charges.
- Quotation should be valid for three months.
- A minimum of 1 year comprehensive warranty of the equipment is required.
- Payment will be released after installation as per Institute rules.
- Order must be delivered and installed within 4-6 weeks of receipt of order.
- The installing technician should be able to clearly demonstrate the acquisition of the signal from the ultrasonic instrument that is being used in the laboratory using the data acquisition system and store it in the formats described in the specifications.
- Institute reserves the right to accept/reject any or all quotation without assigning any reason.

### Name and Address for quotations

Dr. Abhijit Ganguli  
Civil Engineering Department,  
Block IV Room No. 211,  
IIT Delhi  
Hauz Khas  
New Delhi – 110016.