

Annexure-I

Technical Specifications for Dynamic Data Acquisition System

Universal Recorder

- Excellent **real-time digital filter characteristics**
- Minimum 24 channel , expandable to 32 channel with one wire synchronous
- Control and Communication Interfaces: 1 No. Standard RS-232, 9 Pin D; 2 Nos. 1000/100 Base –T Ethernet interface with Cat -5 cables, USB 2.0. port
- Automatic detection, calibration and synchronization with different instrument
- Input impedance – very high (10MΩ minimum)
- Input Range: ± 10 Volts , with programmable gains
- Sampling rate: minimum 25000 samples per sec, per channel
- Controller with inbuilt with CPU
- Compatible with windows XP, Vista windows 7, 8 and other windows higher version for operation, control, data processing, output and graphical configuration
- Power Supply 10 to 36 VDC, 33 VDC., DC power supply or AC adapter (Optional accessory)
- Input frequency: 47 – 60 Hz
- Cooling: Filtered/Forced cooling should be provided for cooling the chassis, overvoltage Protection: -40 to 55V
- Resolution:18 bit minimum
- Excitation outputs: Minimum one per channel , 0-10V DC Independently programmable
- All channels synchronous 10 kHz high –speed sampling
- Should have normal and dual sampling mode

Acquisition channels

- Conditioning cards for measuring LVDT, strain, voltage, Piezo electric acceleration, CAN signal and compatible with data acquisition system
- Digital Filter Butterworth filter (IIR)
- All channels synchronous sampling minimum 1 Hz to 100 kHz

Data Recording

- CF cards, 128 MB to 16 GB
- Maximum data file size, 4GB for 1-time measurement and 1GB for repetitive measurement for 2 times or more

Display Channel status display LED:

- Interfaces: USB (USB2.0 High Speed) , Connector configuration , LAN (10/100BASE-T) 2 port, Connector configuration: RJ45 modular jack
- Synchronous Operation - With synchronization cable connection,
- Setting Conditions : Online: From the PC via LAN or USB port, Offline: By reading from the CF card which has measuring conditions

Measuring Modes: Manual measurement/trigger measurement/interval measurement

- Data collection through online using PC or offline
- Fuses
- Dynamic data acquisition software , Instruction manual
- The software should have proper standard operating procedures having capability to read, record, store and analyze connected instruments experimental test data's.
- The software can able to produce graphical illustration on the stored results after experiments Also, the software should be compatible with windows XP, Vista windows 7, 8 and other windows higher version

Other

- (1) 3 years comprehensive warranty.
- (2) Installation, Training and demonstration should be provided by the /distributor/registered supplier/manufacturer at CSIR-CBRI Roorkee.