

Vendors are requested to send the Quotation along with compliance certificate on or before 12<sup>th</sup> February, 2019.

Item name: Software enabled Data acquisition System-II

Item Specifications	
Dynamic Signal Acquisition System (4-channel) with a dedicated software	<ul style="list-style-type: none"> <li>Dynamic Signal Acquisition hardware should contain 4 channel Inputs for IEPE sensors</li> <li>4-input channels should have simultaneous sampling rate, 50 kS/s/ch mandatory for Vibration measurements</li> <li>4 input channels with <math>\pm 5</math> VDC, BNC connector</li> <li>Delta-Sigma ADC with 24-bit resolution @ 102 dB dynamic range</li> <li>Input types: Piezoelectric type ICP / IEPE sensor should be compatible for dynamic vibration measurements</li> <li>It must support DC, AC, ICP Input coupling for vibration measurements</li> <li>Software-selectable IEPE signal conditioning,</li> <li>IEPE excitation current 2mA</li> <li>Should support TEDS, IEEE 1451.4 TEDS class I</li> <li>-40 °C to 70 °C temperature range to meet a variety of application and environmental needs</li> <li>Overvoltage protection: <math>\pm 30</math> VDC</li> <li>1-slot Ethernet Compact DAQ chassis</li> <li>Power connection to chassis with screws</li> <li>DAQ should meet Safety &amp; Hazardous standards, Electromagnetic compatibility, CE compliance</li> <li>DAQ should meet Shock &amp; Vibration as per standards "Random IEC 60068-2-64", "Sinusoidal IEC 60068-2-6", "Operating shock IEC 60068-2-27"</li> <li>Software-For real time vibration analysis DAQ should contain a 4 channel FFT analyzer.</li> <li>Software-Should Integrate Acceleration to velocity and displacement, FFT Zoom, Spectrum</li> <li>Software-Should display Amplitude g (pk, rms, avg) vs time</li> <li>Software-Built-in data streaming and playback for post processing.</li> <li>Software-Should support Frequency response function (FRF)</li> <li>Software-The input response of Impact hammer and output response of Accelerometer should be measured as input to output response called FRF</li> <li>The item should have minimum One-year comprehensive warranty</li> <li>Installation: Free of cost at IIT Madras</li> </ul>

The software enabled data acquisition system-II, having the above mentioned specifications should be compatible and successfully integrable with the Triaxial accelerometer (type: 8763B050BB) with hammer (type: 9724A2000) of KISTLER make. The vendor has to also include a statement in support of this in the compliance certificate.

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