## COLLEGE OF ENGINEERING, ADOOR, KERALA - 689 121. (Managed by IHRD, A Govt. of Kerala undertaking)

Phone: 91-4734-231995

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No. A3/2599/2018/CEA

Dated: 21.11.2018

## TENDER NOTICE

Tender No. 01/2018-19, Purchase of Whirling of shaft apparatus, free and forced vibration setup for Mechanical Engineering Lab.

Last date of Sale : 03.12.2018 at 12 PM

Last date and time for receipt of tender : 03.12.2018 at 3 PM

Date and time for opening of tender : 04.12.2018 at 2 PM

Price of tender form : Rs. 400/- + GST Rs. 72/- (18%)

Price of Duplicate copy : Rs. 200/- + GST Rs. 36/- (18%)

Address of Purchasing Officer from whom tender forms are to be obtained and to whom tenders are to be sent : The Principal College of Engineering, Adoor Kerala 691551

EMD : 1% of amount quoted

Tender documents can be had from the Principal on payment of the prescribed cost at the counter in cash or by post (postage extra Rs. 35/- for one tender form) sending a DD for the amount payable at Adoor in favour of the Principal, College of Engineering, Adoor 691551. Details will be available in College website: www.ceadoor.ihrd.ac.in



PRINCIPAL Pal College of Engineering Manakkata P.O. Adoor-691551

Tender No. 01/2018-19, Purchase of Whirling of shaft apparatus and free and forced vibration setup for Mechanical Engineering Lab.

SI No	Item	Specification	Qty
1	Whirling of shaft apparatus (Low cost version)	<ul> <li>Can be used to determine whirl frequencies</li> <li>Two different diameter shafts of Stainless steel; specially designed lange with different diameter bearings are provided to easily change shafts.</li> <li>Two rotors machined from Aluminum.</li> <li>Specially designed flange with different diameter bearings are provided to easily change shafts and rotors.</li> <li>3 phase Motor with VFD for precision speed control.</li> <li>Optical tachometer with Frequency indicator.</li> <li>Shaft length can be varied by moving the bearing housing.</li> <li>Detailed manual with video tutorial describing the complete operation.</li> <li>Warranty: 2 years</li> </ul>	1 No.
2	Free and forced vibration setup (Low cost version)	<ul> <li>6 Spring and mass system.</li> <li>Upto 5 natural frequencies and mode shapes can be observed.</li> <li>Mass and springs can be varied to study the features.</li> <li>Tuned mass vibration experiment</li> <li>DC motor with speed control using variable DC power source.</li> <li>Damping studies using various oils (Viscous damping)</li> <li>One tri-axial accelerometer.</li> <li>Warranty: 2 years</li> </ul>	1 No.
*The	above two systems sho	ould be equipped with the data acquisition system a	s below
?	Data acquisition system with PC interface and software for plotting and saving data. Doing Fast Fourier Transform, windowing, sampling rate selection, averaging etc. (Low cost version)	8 Analog Input (12- Bit, 10 kS/s), 2 Analog Output (5 kS/s/ch), 13 Digital I/O USB Multifunction I/O Device. It offers analog I/O, digital I/O and 32-bit counter. The USB-6000 provides basic functionality for applications such as simple data logging, portable measurements, and academic lab experiments. The device requires a lightweight mechanical enclosure and is bus powered for easy portability. Can easily connect sensors and signals to the USB-6001 with screw- terminal connectivity.  Warranty: 3 years	1 No.  Common for  1 & 2

- 1. Rate: Should be inclusive of all taxes and duties.
- 2. Delivery should be made at site College of Engineering, Adoor
- 3. Payment: 100% after successful testing
- 4. Security Deposit: 5% of the contract amount

PRINCL**Principal**College of Engineering
Manakkala P.O, Adoor-691551



measurements, and destinate tab entracipants
the device bequite a lightweight mechanical
conformer had is buy powered for any

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