PU wants to buy high-performance Vibration Training kit for the Mechatronics Engineering Labs as part of the MS program in Mechatronics. The kit is referred to as the Universal Vibration Kit.

Required Experiments: Eight Experiments as follows:

1. Simple Pendulum.
2. One Degree of freedom free vibration (Logarithmic Decrement): Investigating the response of one degree of freedom systems and Measuring the logarithmic decrement of one degree of freedom (mass-spring-damper system for various damping mediums: air, water & oil).
3. Frequency Response: Measuring the frequency response function of (spring-mass-damper) system.
4. Rotational vibration. (mass-spring-damper system for various damping mediums: air, water & oil).
5. One Degree of freedom Harmonic Excitation: Investigating the forced harmonic response of 1DOF under damped system.
6. Unbalance: Measuring the Unbalance response of 1DOF.
7. Base Excitation: Measuring the transmissibility of 1DOF.
8. Multi-degree of freedom vibration.

The training kit should have the following specifications (as minimum):

1. The training kit must be fully computerized.
2. All softwares must be provided and installed correctly.
3. The training kit is assumed to be educational.
4. The kit must fit inside the laboratory (placed on table).
5. The dimension of the main frame not more than (140*120*80)cm.
6. All the sensors and auxiliary parts must be provided.

This is part of TEMPUS-JIM2L project and therefore all offers should be submitted in English.

Mechatronics Engineering Department

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