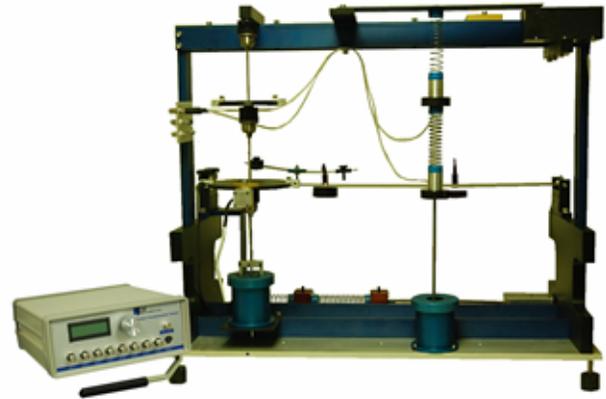


## SpectraQuest introduces the Vibration Fundamentals Trainer(VFT)

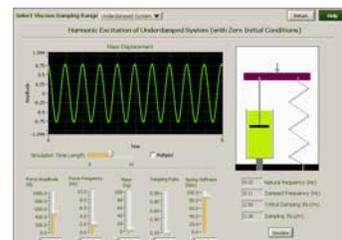
- **Hands-on turnkey system for teaching vibration fundamentals**
- **Robust, user friendly, modular, and compact bench-top device for performing controlled experiments**
- **Validate theoretical concepts by comparing experimental results with the computer simulation of the vibration theory**
- **Integrated package includes user friendly software with pre-defined experiments and simulations with data acquisition hardware, sensors and instrumentation**
- **Experimental setup for single and two-degrees of freedom spring-mass system (with and without damping), torsional vibration, beam vibration, pendulum and tuned-mass-damper**
- **Available in various combination packages to fit customer requirements**



Press Release, June 17, 2010

SpectraQuest introduces Vibration Fundamentals Trainer (VFT), a turn-key integrated educational package for teaching/learning the fundamental principles of mechanical vibration as well as engineering mechanics. It provides both a comprehensive hands-on experimental device and an instrumentation package for performing laboratory exercises to enhance student understanding of vibration theory. The VFT clearly brings classical theory to life by providing a convenient mean to validate predictions and to demonstrate the influence of parameter changes on system response visually. Students can perform virtual experiments using the vibration simulation software and then verify the results with actual experiments thereby reinforcing the learning of difficult principles. It is an ideal tool for mechanical vibration courses both at under graduate and graduate levels.

The VFT is well researched and designed for immediate implementation for vibration laboratory development. It can be easily integrated with a typical vibration course taught at most institutions. The VFT provides a comprehensive hands-on experimental device, an instrumentation package, and experimental program with course curriculum for performing laboratory exercises to enhance student understanding of vibration theory. The bench-top apparatus has a spacious modular design featuring versatility, operational simplicity, and robustness. Each component is machined to high tolerances so it can be operated without conflicting vibration in a totally controlled environment. The instrumentation package includes changeable restraint fixtures, optional force transducers to measure the support reactions, accelerometers, a variable frequency rotary



shaker for forced excitation, tachometer, and eight channels simultaneously sampled data acquisition hardware, signal conditioners, and time and frequency domain analysis software. Also included are a software simulation of theory and a well defined experimental program for free and forced vibration experiments ranging from single degree of freedom spring mass to continuous beam with different boundary conditions. VFT also comes with a training book and complete operations manual & videos to assist with exercises and learning. The basic VFT can be mounted with one or more of the available optional modules such as: pendulum vibration module, mass-spring module, torsional vibration module, beam vibration module, vibration control study module, and vibration transmissibility module. Various high value combination packages are also available. Please download the brochure at <http://www.spectraquest.com/resources/downloads/> for more details.

### ***About SpectraQuest***

SpectraQuest is a leading developer and manufacturer of turnkey systems and products for enhancing reliability of rotating and reciprocating machinery. These products are ideal platform for research and education in machine fault diagnosis/prognosis, teaching dynamics and vibration courses, and wind turbine drivetrain studies. The distinguishing feature of SpectraQuest is a wide variety of Machinery Fault Simulators and Custom Designed Test Rigs which are sold in over forty five countries around the world. Further information is available at <http://www.spectraquest.com/>.

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