

"VERY HELPFUL INFORMATION FOR BOTH THEORETICAL AND PRACTICAL UNDERSTANDING OF RANDOM VIBRATION."

- NASA/Jet Propulsion Lab

"GOOD MIXTURE OF EXPERIMENTAL AND THEORY. INSTRUCTORS WERE VERY CLEAR ON STRESSING OBJECTIVES. GAVE LOTS OF EXAMPLES OF IMPORTANT ASPECTS."

- Sandia National Labs

"THE CLASS WAS REALLY EXCELLENT. I HAD SEEN MOST OF MATERIAL IN SCATTERED PLACES BEFORE, BUT THIS WAS GREAT TO HAVE EVERYTHING PULLED TOGETHER AND COHERENTLY PRESENTED."

- Honeywell

RANDOM VIBRATION, THEORY AND EXPERIMENT

*A 3-Day Training Course Offered at
Texas Christian University*

MARCH 12–14, 2013

TCU

TCU

OVERVIEW

The course will focus on:

- 1) Fundamentals of structural dynamics
- 2) Fundamentals of probability, statistics, and random signals analysis
- 3) Fundamentals of the theory of random vibration.

The lectures will be augmented with narrated videos from TCU laboratories covering deterministic structural dynamics and random vibration. Two and one-half hours of these instructional vibration experiments, will be interspersed throughout the program to complement the lectures. Further, extensive instrumentation equipment owned by TCU, as well as additional test and evaluation hardware, will be on display throughout the program.

The course instructors are Pat Walter, professor of engineering at Texas Christian University and consultant, and Tom Paez, retired distinguished member of the technical staff at Sandia National Laboratories and consultant. Together, they have more than eight decades of experience in structural dynamics, measurement, and random vibration. Dr. Walter has taught at TCU for the past eighteen years, and Dr. Paez taught graduate and undergraduate-level courses for seven years at the University of New Mexico.

COURSE OBJECTIVES

- 1) Provide participants with a thorough and understandable review of the theory of linear structural dynamics augmented with narrated videos of laboratory experiments.
- 2) Introduce participants to the theories of probability, statistics, and random signal analysis through the use of numerous examples.
- 3) Provide participants with a thorough and understandable introduction to the theory of random vibration augmented with narrated videos of laboratory experiments.
- 4) Increment participants' understanding of structural dynamics and random vibration.
- 5) Provide guidance to those who have encountered specific problems in structural dynamics and random vibration.

WHO SHOULD ATTEND

Random Vibration, Theory and Experiment is intended for practicing engineering professionals involved with structural dynamics and random vibration modeling, analysis, testing, test specification development, and design. Those whose jobs include work in engineering measurement, signal analysis, and laboratory testing and experimentation will also benefit from the course. In addition, managers of such individuals and groups will equally benefit from the course. The course is presented at the degreed BS engineer or equivalent level and above. Our objective is to make the material presented as understandable as possible to all participants.

COURSE VENUE AND DATES

Random Vibration, Theory and Experiment will be offered at Texas Christian University, located in Fort Worth, Texas. The course will be held in the Tucker Technology Center, home of Texas Christian University's College of Science and Engineering. Participants will also have the opportunity for informal networking while experiencing Fort Worth's unique mixture of "Cowboy's and Culture."

The short course will be held March 12 through 14, 2013.

COURSE FEE, RESERVATION, CREDIT

The fee for the three-day short course is \$1,795.

Registrations and payments can be made to TCU, Office of Extended Education:

Online at www.lifelong.tcu.edu

Fax: 817.257.7131

Phone: 817.257.7132

Mail: Office of Extended Education, TCU Box 297026, Fort Worth, TX 76129.

A certificate of completion and 2.4 CEUs (Continuing Education Units) issued by Texas Christian University are awarded to each short course attendee.

Program Information and Contacts

For course information contact:

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*The course is sponsored by:
TCU College of Science and Engineering and the
Shock and Vibration Exchange (SAVE), HI TEST Labs*

TCU COLLEGE OF  **SCIENCE ENGINEERING**

