

# Basic Experimental Modal Analysis

## Course Objective

Modal analysis is an essential technology behind solving today's noise and vibration problems. This seminar focuses on the practical implementation of experimental modal analysis testing.

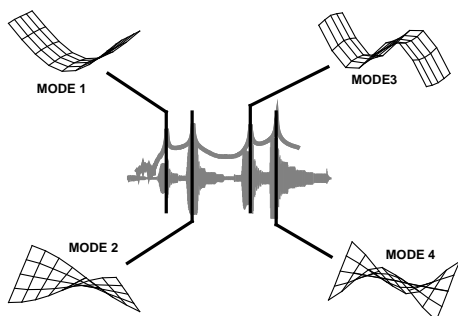
This is accomplished through understanding basic application of theory and measurement techniques as well as data reduction to obtain modal characteristics. Concepts of theoretical background, digital signal processing, excitation techniques and extraction of modal parameters from measured frequency response functions is the goal of this seminar.

## Training Content:

- Overview & Theory of Experimental Modal Analysis
- Single degree of freedom relationships
- Multiple degree of freedom relationships
- Poles and residues
- Digital Signal Processing for Experimental Modal Analysis
- Sampling and Quantization, Aliasing, Leakage, Windowing
- Frequency Response Function Estimators
- Frequency Response & Coherence Functions
- Excitation Techniques
- Calibration
- Measurement Examples (Good vs. Bad)
- Modal Parameter Estimation
- Modal Validation

## Who Should Attend?:

This seminar is intended for engineers and technicians that currently practice or need to learn how to do modal tests and therefore need to gain insight in both practical aspects and the theories behind it.



Sincerely,

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