

## Post-Conference Training

**June 6-7, 2012** (Wed-Thur), 9a-5p, **University of Michigan-Dearborn**  
(two days, includes light continental breakfast at 8:30am, lunch each day)

**Please Note:** Final course selection, BASED ON REGISTRATION RESPONSE,  
will be announced May 1, 2012.  
Registration Confirmations will be sent to registered students after this date.

**Course Fee: \$450** (Students with valid ID: \$250)

### **NVH and Frequency Domain Analysis with LS-DYNA®**

Instructor: Yun Huang, Ph.D. (LSTC)



### **Objective**

The objective of the training course is to introduce the frequency domain vibration and acoustic features of LS-DYNA to users, and give a detailed look at the application of these features in vehicle NVH simulation.

### **Who Should Attend**

This course is recommended for engineers who want to run NVH or other frequency domain vibration and acoustic simulation problems with LS-DYNA. This course is useful for engineers and researchers who are working in the areas of vehicle NVH, aircraft/spacecraft vibro-acoustics, engine noise simulation, machine vibration testing and simulation, etc.

### **Course Contents**

- Introduction of NVH and frequency domain analysis
- Frequency domain features within LS-DYNA
- Fourier Transform
- Frequency Response Functions
- Steady state dynamics with harmonic loading
- Random vibration with PSD loading
- BEM acoustics
- FEM acoustics
- Coupling of mechanical vibration and acoustic analysis
- Response spectrum analysis
- Post-processing of analysis results
- Workshop