

## Fluid Structures Interaction Using LS-DYNA

## WWW.LSDYNA-ONLINE.COM

This course will allow LS-DYNA users to get started on using LSDYNA for Fluid Structure Interaction (FSI) problems. The most important elements to start using LS-DYNA for such problems will be presented in the 16 hours. Workshops will be presented as part of this course.

- Introduction
  - When to use Eulerian and ALE
  - o Sample applications
- Eulerian capabilities
  - Euler and ALE element library
  - Boundary conditions
  - Initial conditions
- Basic concepts of arbitrary Langrange-Euler (ALE)
  - Advantages of ALE formulation
  - How it works
- Basic concepts of Multi-Material
  - o When to use multi-material
  - Advantages of multi-material formulation
- Basic concepts of fluid/structure coupling
  - o Different coupling methodologies
  - When to use them
- Modeling techniques
  - Mesh design
  - Problem initialization
  - Post-processing











