

10th International LS-DYNA® Users Conference

Post-Conference Training Seminars

June 11th & 12th

Conducted at the **University of Michigan - Dearborn**

Registration Opens at 8:30 a.m.

Class runs from 9:00 a.m. to 5:00 p.m.

(Continental Breakfast and Lunch provided both days)

For more information, contact Cathie Walton at cathie@lstc.com or 313-790-9040

LS-DYNA ADVANCED COURSE IN ALE AND FLUID/STRUCTURE COUPLING

Instructor: M'hamed Souli, Ph.D.

TOPICS :

Time Integration For Explicit Method.

Material Models

- *MAT_ELASTIC
- *MAT_NULL
- *MAT_ELASTIC_FLUID
- *MAT_HIGH_EXPLOSIVE_BURN
- *MAT_ACOUSTIC

Energy Equation

Bulk Viscosity

Equations of State.

- *EOS_LINEAR_POLYNOMIAL
- *EOS_GRUNEISEN
- *EOS_JWL
- *EOS_IGNITION_AND_GROWTH_
OF_EACTION_IN_HE

Navier-Stokes Equations

Properties of Fluid Material

Eulerian Formulation

Advection Algorithms

- First order algorithm SALE Method
- Second order Van Leer Algorithm
- Half Index Shift.

ALE Smoothing Algorithms.

- Equipotential Algorithm
- Simple Average Algorithm
- Volume weighting Algorithm

Eulerian time step

Multi-Material Formulation

Volume and Void Formulation (VOF Method)

Euler/Lagrange Coupling

- Acceleration Coupling
- Velocity Coupling
- Normal Constraint Coupling
- Penalty Coupling
- Coupling with Eroding Elements