



Advance Impact Simulation Using LS-DYNA

This course will allow LS-DYNA users to use the code with more understanding of the different options. The most important options in LS-DYNA will be presented in the 16 hours. There is a workshop associated with this course which is part of the 16 hours.

- INTRODUCTION
- THE NONLINEAR FINITE ELEMENT DYNAMIC EQUATIONS
- TIME INTEGRATION AND TIME STEP
 - DIFFERENCE BETWEEN EXPLICIT AND IMPLICIT TIME INTEGRATION
 - MASS SCALING
- MATERIAL MODELS TECHNOLOGY
 - SOME COMMON MATERIAL MODELS WILL BE DISCUSSED
- ELEMENT TECHNOLOGY, WHAT ELEMENT FORMULATION SHOULD BE SELECTED
 - SPRING ELEMENTS
 - TRUSS ELEMENTS
 - BEAM ELEMENTS
 - SHELL ELEMENTS
 - SOLID ELEMENTS
 - TSHELL ELEMENTS
- HOURGLASS TECHNOLOGY
 - WHAT HOURGLASS CONTROL SHOULD BE USED
- CONTACT TECHNOLOGY
 - WHAT CONTACT SHOULD BE USED
- QUASI-STATIC SIMULATION USING EXPLICIT FE
- DAMPING & DYNAMIC RELAXATION
- MULTI-STEP ANALYSIS & STRESS INITIALIZATION
- GUIDELINES FOR FE MODELING AND SIMULATION
- FILTERING IMPACT DATA REDUCTION
 - FFT
- INTERMITTANT EIGEN VALUE ANALYSIS

