Advance LS-DYNA for Civil Engineers

This course will allow advance users of LS-DYNA to started advance civil engineering topics with minimal effort. The most important elements to start using LS-DYNA will be presented in the 2 days. Workshops examples will be presented and provided to users.

- Introduction to LSDYNA for Civil Structural Applications
- Implicit vs. Explicit FEA for Civil Structural Analysis
- Geotech Material Models
    - Soil Material Models
    - Concrete Material Models
    - Sand Material Models
    - Rock Material Models
    - Clay Material Models
- Reinforced/Concrete Modeling
    - Rebar Modeling Using 1D Contact
    - Rebar Modeling 3D Behavior
- Pore Pressure
- Dam Analysis
- Buildings Structural Analysis
- Crack Propagation/Damage in Civil Structural Applications
- Civil Structures Preloading
- Earthquake Simulations
    - Effective Seismic Input Method
    - Perfectly Matched Layers
- Stage Constructions
- Foreign Object Impact
- Civil Structures In Frequency-Domain Analysis
- Fluid/Structure Interactions (Reservoir/Foundation/Dam)
- Civil Structural Analysis/Collapse Under Fire Condition
- Blast Analysis of Civil Structures
- Shore Tsunami Analysis and Offshore Structures