



15th LS-DYNA International Conference & Users Meeting

Pre-Conference Training (1 day)

Sunday, June 10, 2018, 9am-5pm

Edward Hotel & Convention Center, Dearborn, MI

Introduction to ICFD

Instructor: Inaki Caldichoury

Prerequisite : Basic keyword knowledge of LS-DYNA. CFD knowledge is appreciated but not mandatory.

Objective

This one day class provides an introduction to the ICFD solver in LS-DYNA. The ICFD solver can run as a stand alone for pure CFD applications (the study of drag lift around bluff body and vehicles for example), or be coupled to the thermal and structural mechanical problems for linear and non-linear complex FSI and conjugate heat transfer applications. It also makes use of an automatic mesh generator for the fluid volume thus greatly reducing the cost of setting up the model. In the first part, key concepts as well as the philosophy behind the solver will be discussed before moving on practice examples and keywords in the second part. Finally, the new features brought by R10 will be presented along with examples.

COURSE CONTENT

- ICFD solver genesis and development path
- Overview of features and application examples
- General concepts of CFD and fluid structure interaction
- Demonstration of keyword set up using some CFD examples
- How to approach a Fluid structure interaction problem (FSI)
- Introduction to conjugate heat transfer analysis
- Overview of new R10 features (steady state solver, wave generator etc)
- Features currently under development

For further information regarding pre- and post-conference training, please consult the conference website www.ls-dynaconferences.com or send email to ConfTraining@lstc.com.