



Class Locations:

Livermore Software Technology Corp.

7374 Las Positas Rd. Livermore, CA 94551

1740 West Big Beaver Road Troy, MI 48084

Contact: classes@lstc.com

www.lstc.com/training

Introduction to EM - Electromagnetics

Instructor: Inaki CaldichouryLSTC

1 Days - \$100 Students \$50 w/student ID

Includes on site continental breakfasts, lunches, breaks

Includes 30-day LS-DYNA demo license to practice

Prerequisite: Students should already be familiar with LS-DYNA for computational mechanics and thermal problems for solids
EM knowledge is useful, but not mandatory.

Description: This one day class is an introduction to the Electromagnetism (EM) solver in LS-DYNA. Key physical and numerical concepts are presented; keyword examples are described and studied. The main applications include magnetic metal forming, welding, bending, ring expansions, inductive heating, resistive heating, rail guns and so forth

Introduction to the EM solver

- Background
- Main characteristics
- Examples of applications

Setting up an Eddy Current problem

- Step by step keyword set up
- Coupling with structural and thermal solvers
- EM equation of states

Current and future post treatments

General Principles

- Electromagnetics
- FEM-BEM system
- Source Terms
- The FEMSTER library

Advanced Capabilities

- Inductive heating
- Resistive heating
- EM contact
- Magnetic materials

Documentation and references