



15th LS-DYNA International Conference & Users Meeting

Pre-Conference Training (1 day)

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

Edward Hotel & Convention Center, Dearborn, MI

Airbag Folding

Instructor: Raghu Chivukula.

Objective

Provides an introduction to airbag folding and morphing strategies in LS-DYNA/LS-PREPOST. The operations of preprocessor based airbag folding and simulation based airbag folding are presented in detail, along with a step-by-step procedure to aid the implementation of these folding operations. Workshops demonstrating each stage of folding and morphing operations are provided to assist the learning process.

This course provides a platform for engineers to implement various folding patterns, while tuning the occupant response, without having to wait for the delivery of folded mesh from external teams. This course would be useful to engineers working in the fields of airbag modeling and occupant safety, by enabling them to appreciate the various control parameters involved in the airbag folding and morphing operations.

COURSE CONTENT

- Introduction
- Overview of Airbag Folding Methodologies
- Applications of Airbag Folding
- LS-PREPOST (Preprocessor) Based Airbag Folding Methodology
 - ABFOLD Toolbox
 - Thin Fold
 - Thick Fold
 - Tuck Fold
 - Spiral Fold
 - Airbag Reference Geometry Verification and Morphing Tools
 - Workshop
- LS-DYNA (Simulation) Based Airbag Folding Methodology
 - DynFold Toolbox
 - SPC Tool
 - Load Mesh Tool
 - BCFG Tool
 - Stitch Tool
 - Tuck Tool
 - Simulation Folding Modeling Practices
 - Workshop
- Passenger Airbag Morphing
 - PAB Morphing Toolbox
 - Workshop
 - Additional Morphing Tools