# Non-Linear Response Optimization Workshop

## What will be covered:

- Overview of GENESIS and Design Studio

- Equivalent Static Load (ESL) method for Nonlinear Response Optimization

- Creating Optimization Data Using Design Studio

- Post-processing of Optimization Results with Design Studio

- Hands-on Exercises will be Solved by Attendees with Instructor Help

## About the Workshop:

This workshop will provide an in-depth look at optimization of nonlinear responses using GENESIS and Design Studio. The Equivalent Static Loads (ESL) method is briefly presented. The ESLDYNA interface, which uses LS-DYNA to solve the nonlinear analysis and GENESIS to perform the optimization, is explained. In this workshop we will look at the different optimization capabilities of GENESIS. We will also look at a plugin to Design Studio that serves as a graphical interface to setup and run the ESLDYNA interface.

## About the Software:

GENESIS is a fully integrated finite element analysis and design optimization software package, written by leading experts in structural optimization. Shape, sizing, topography, topometry, and topology optimizations are available to the user.

Design Studio for GENESIS is a design oriented pre- and post-processor graphical interface for GENESIS. Design Studio allows users to display finite element models and to easily create GENESIS design data. It allows users to display analysis as well as optimization results.

## Registration Information

If you have any questions regarding the workshop content, please contact Phani Adduri (e-mail: padduri@vrand.com) (phone:  248-596-1611 x101).
Early registration is encouraged due to limited seating.

## Cost:

FREE

## Location:

41700 Gardenbrook, Suite 115, Novi MI 48375