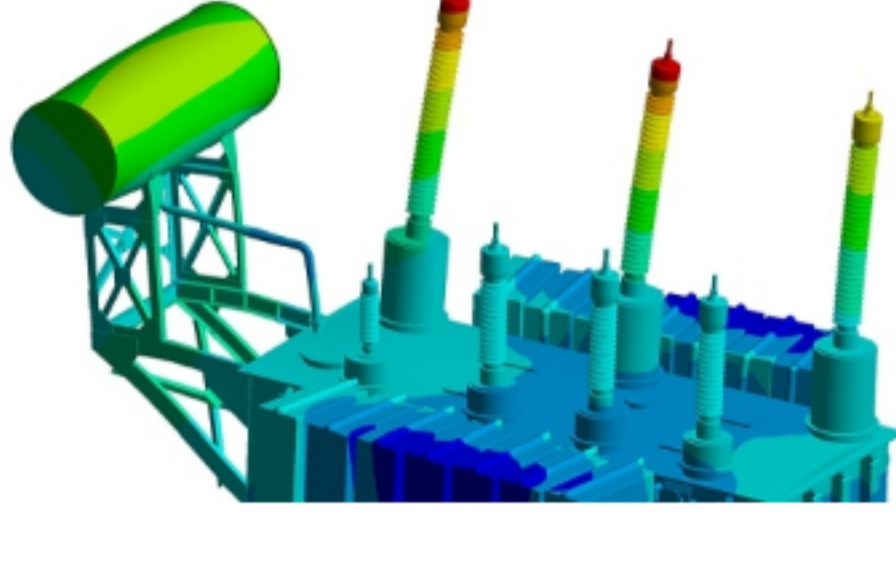


Structures under Thermal Stress Linear & Non-Linear FEA Applications

Saturday, June 5, 9:00 AM - 4:00 PM PDT



Speaker: Dr. Metin Ozen, Ozen Engineering

This training seminar, hosted by the ASME Santa Clara Valley Section and presented by Ozen Engineering, will outline procedures on how to perform linear and non-linear thermal and coupled thermal-stress Finite Element Analyses.

There will be specific examples on what a linear structural analysis is and what makes a structural analysis non-linear. Similarly, on heat transfer (thermal) simulations, there will be specific examples on linear simulations and the characteristics of a non-linear heat transfer simulation. There will also be an example on covering theory and application of coupled thermal-stress analysis.

During the seminar, application problems will be set up and run live. Use of the software is not required for this seminar. No experience with ANSYS is needed for this seminar.

[Register](#)

You will learn:

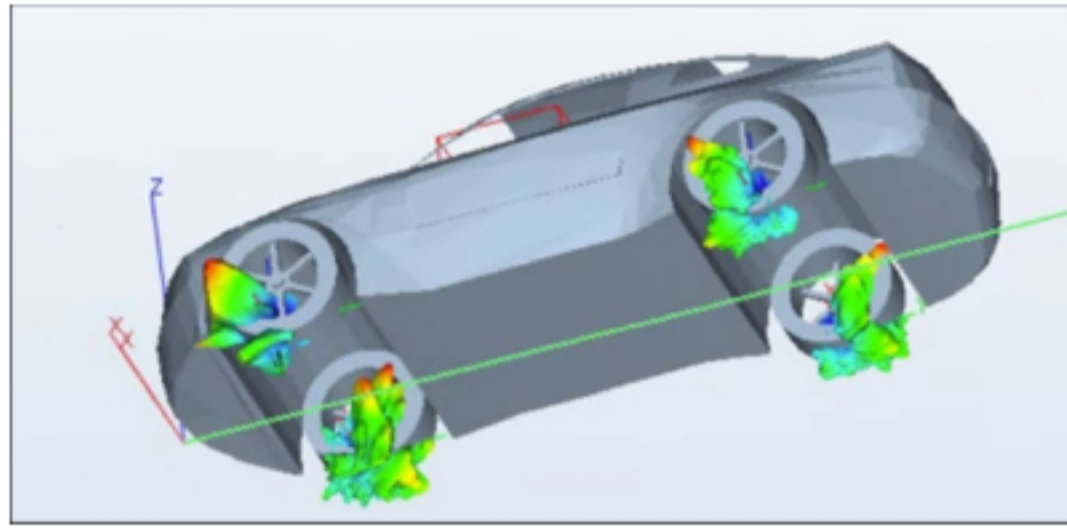
- Linear Structural & Heat Transfer FEA
- Non-Linear Structural & Heat Transfer FEA
- FEA Meshing Considerations
- Material Properties for FEA
- Boundary conditions for Structural & Thermal FEA
- Thermal-Stress Analysis
- Static (Steady-State) versus Time-Dependent Problems

Cost:

- Non-Member: \$109
- ASME Member or Engineering Society affiliation*: \$69
- ASME Student, Unemployed, or Retired Member: \$49

Blog Post & YouTube Videos

Tire Pressure Monitoring System (TPMS) Antenna Simulation and Calculating Link Budget



Tire Pressure Monitoring System (TPMS) is one of the important part in each and every car. It notifies the driver when the tire pressure is low to decrease chance of accident while it has some other benefits such as increasing fuel efficiency.

A whip antenna with Helix extension is used to study the TPMS. First antenna is designed, studied, and tuned using HFSS. Next a rim is created, and antenna is added to it. After studying the rim, antenna and tuning them, a box is added to the model to represent a car. Then, tuning is done one more time and the receiver antenna is added.

Learn more by viewing our [blog post](#) and watching our instructional YouTube videos.

Did you know?

A bit of trivia to hopefully enlighten your day and amaze your family and fellow engineers.

Did you know:

- Isaac Newton invented the cat door
- the wristwatch was invented in 1904
- Shakespeare invented the words 'assassination' and 'bump'
- instant mashed potatoes (dehydrated potato flakes) were invented in Canada in 1962
- bulletproof vests, fire escapes, windshield wipers, and laser printers were all all invented by women

Upcoming Ansys Webinars

You can also view all of the upcoming webinars by visiting our [Training Calendar](#).

[Accelerating Discovery with Ansys Cloud](#)

May 4, 2021 - 8:00 AM PDT

Learn about how you can now access Ansys Discovery on Ansys Cloud, eliminating the need for specific GPUs on your local workstation. Discovery combines live physics, interactive geometry modeling and high-fidelity physics.

[Process Integration and Democratization of CAE Workflows in the Automotive Industry](#)

May 5, 2021 - 6:00 AM PDT

Learn the basics as well as the implementation of automation and democratization of CAE workflows for the automotive industry with Ansys optiSLang and Ansys Minerva.

[Thermal Performance of Inverter Bus Bars with Complex Harmonic Content](#)

May 6, 2021 - 8:00 AM PDT

This webinar spotlights Ansys 2021 R1's new capabilities for coupling accurate loss density calculations to thermal solvers for predicting the temperature of bus bars.

[Teaching Design-Led Materials Science](#)

May 11, 2021 - 8:00 AM PDT

Learn an alternative approach to teaching materials science that emphasizes a cohesive engineering design philosophy and teaches students how to "think like a materials engineer."

[Ansys Fluid-Structure Interaction Simulation for Muzzle Brake Structural Integrity](#)

May 12, 2021 - 8:00 AM PDT

This webinar will demonstrate how Ansys Fluent and Ansys Mechanical can be used to compute the loads which muzzle brakes are subjected to and the resulting stresses and deformations of the structure.

Try Ansys Cloud with a Free Trial!



CLOUD

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