



**SIMULATION INNOVATION & MODELING CENTER**

# SIMCENTER CONNECT

APRIL 2020

## Welcome to SIMCenter's Quarterly Update



Welcome to our quarterly update. Little did we know when we set our newsletter distribution date, that we would be experiencing an international pandemic. We are grateful to the OSU leadership for enacting policies including telework that protect the health of our staff & community. The SIMCenter office is empty, but innovation continues at the homes of our researchers and staff who continue to work towards our mission— to champion groundbreaking research, promote student M&S development, and serve as a valuable resource for our sponsors.

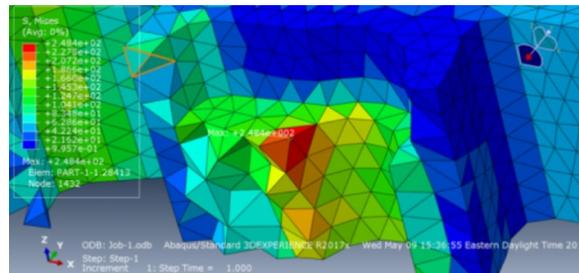
Take a moment to learn more about our projects, and stay safe.

Heather Sever, Associate Director

### *Feature Article*

## SIMCenter Offers Online Certification Program in the Practice of Finite Element Principles

This program, designed for the practicing engineer, provides graduate course material with practical application in order to support engineers in adapting CAE techniques to their work.



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## Enhancing Autonomous Vehicle Performance Through Simulation

A lot of test simulations are needed to ensure the safety of autonomous vehicle systems. SIMCenter researchers are

making it faster and easier with an open-source software tool.



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## **SIMCenter Researcher Uses Cutting-Edge Modeling to Ensure Car Safety**

Some of the most exciting research performed at the SIMCenter is in the field of computational solid and structural mechanics. One researcher working in this field is Peiyu Yang, whose work primarily focuses on building virtual models based on the experimental data from real-life material tests.



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## **SIMCenter Provides Vibration Isolation Study for OSU Med Center Research Project**

When OSU researchers teamed up with NASA to send an experiment to space, Dr. Scott Noll and the SIMCenter made sure everything would go smoothly.



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## **A Dream Realized— Recent OSU Grad Takes his Experience to TRC, Inc.**

As an undergraduate, Mayur Patil became fascinated with the automotive field. His passion brought him to the SIMCenter, where he worked to ensure the safety of self-driving cars. Now, having received his master's degree in mechanical engineering, he's ready for his next step.



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## Board Member Highlight: Shawn Freeman

From dismantling radios as a toddler to providing businesses with simulation services, Shawn Freeman has long been passionate about technology. Now, as a SIMCenter External Advisory Board member, he's offering guidance to the next generation.



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## Certification Classes

Designed for working engineers, these courses offer an opportunity to enhance your expertise

### Foundations in Finite Element Principles

Start Date: August 24, 2020

### Finite Element and Finite Difference Principles in Heat Conduction

Start Date: August 24, 2020

### Finite Element Principles in Non-Linear Static Analysis

Start Date: January 11, 2021

### Finite Element Principles in Linear Dynamic Analysis

Start Date: May 26, 2021

[Online Certification Course Information](#)

Connect with SIMCenter Associate Director, Heather Sever for more information about starting a project, internships and/or certificate programs

Contact Us!



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