



Simulation Engineering in the Automotive Industry

 Troy, MI, USA

 November 6, 2025

FREE for NAFEMS Members with sufficient seminar credits (2 credits)

\$225 for NAFEMS members without credits

\$325 for non-members

[Register Today](#)

Join us on **November 6, 2025**, in **Troy, Michigan**, for this ground-breaking NAFEMS seminar focused *exclusively* on simulation in the automotive industry.

Leading OEMs, suppliers, and simulation experts will attend and present. If you're part of the automotive industry or supply to it, you need to be here.



Provisional Agenda

(Agenda correct as of October 28th - subject to change)

07:00 AM: Exhibitor Check-in and Setup

07:30 AM: Breakfast and Networking

08:00 AM: Welcome and Introduction

08:05 AM: Sponsor Sessions

08:05 - Rescale 08:10 - TotalCAE 08:15 - VIAS3D

08:20 AM: Keynote Address

Ram Bhandarkar | Stellantis

09:10 AM: Networking Break

101

Session 1

9:50 AM | Empowering Organizations with Engineering Intelligence to Revolutionize Product Development

Evan Brennan
Neural Concept

102

Session 2

9:50 AM | Electromagnetic and NVH Analysis of PMSM with Eccentricity and Rotor Magnetization Variations

Rabah Hadjit
Keysight Technologies Inc.

Auditorium

Session 3

9:50 AM | Simulation and Model-Based Systems Engineering (MBSE) Methods for Requirements Exploration of Advanced Driver Assist Systems (ADAS)

Michael Balchanos
Georgia institute of Technology

10:20 AM | Multi-Objective Optimization of Damping Patches In A Body-In-White For Weight Reduction In Electrical Vehicles Using Reduced Order Models And Response Surface Methods

Zhendan Xue ESTECO
North America Inc

10:20 AM | Thermo-Mechanical Modeling of a Representative Battery Pack for Electric Vehicles

Liangkai Ma
Dow

10:20 AM | Simulation-Driven Assistance for ADAS Safety Development

Jian Tang
Robert Bosch LLC

10:50 AM | TotalCAE
Roadmap to Digitally
Transform Product
Innovation with High-
Performance Computing
Rod Mach
TotalCAE

10:50 AM | Design and
Virtual Validation of
Modular/Scalable Battery
Architecture in
3DEXPERIENCE
Balaji Ramanathan
Dassault Systemes

10:50 AM | Systematic
Fidelity Selection For
Real-Time Vehicle
Dynamics Simulation
Mariam Emara
**Georgia Institute of
Technology**

11:20 AM: Lunch & Networking

12:10 PM: Keynote Address

Dan Woodman | The Dow Chemical Company

12:50 PM: Panel Discussion: Automotive Hybrid Technologies,
Electrification, ADAS, and CAE Process Democratization.

The panel brings together simulation technical experts and senior engineering leaders from a diverse set of automotive OEMs for a focused discussion on the evolving role of simulation in the automotive product development lifecycle.

- **Dan Woodman** - Director of Global Mobility & Transportation (Dow)
- **Bob Tickel** - Director at Cummings
- **Karim Zouani** - Chief Engineer ADAS at Ford Motor Co.
- **Allen Sheldon** - Chief Engineer at Honda Research
- **Tulga Ersal** - Professor at the University of Michigan
- **Mario Felice** - Principal & Founder– virsolTech Engineering Consulting, LLC NAFEMS Technical Fellow

101
Session 4

1:40 PM | A Multi-Criteria
Method For Tire Model
Choice In Minimum Lap
Time Problems
Angel Zarate Villazon
**Georgia Institute of
Technology -
Aerospace Systems
Design Lab**

2:10 PM | Democratizing
Simulation: An AI Copilot
for the Structural and
Thermal Modeling of
Automotive Applications
**Noah Evers - Comp
Labs**

102
Session 5

1:40 PM | Reimagining
Automotive Aerodynamic
Design with Physics-AI:
High-Fidelity CFD Meets
Predictive Neural
Operators
Varun Chitta
Luminary Cloud

2:10 PM | Industry
Examples of more
Simulations in less time
with SimAgent Abstract
CAE Modeling - **Bruce
Webster Novus
Nexus, Inc.**

Auditorium
Session 6

1:40 PM | Democratizing
CAE: AI-ML Enabled
Scalable Strategies for
Accessible and
Repeatable Simulation
Workflows
Arindam Chakraborty
VIAS3D

2:40 PM | CAE
Democratization Through
AI
John Zinn
CognaSIM

2:40 PM | Optimizing
Multidisciplinary CAE
Simulation for Automotive
Applications Through
Holistic Compute, Data,
and AI Integration
Pete Klein
Rescale

3:10 PM: Networking Break

101
Session 7

102
Session 8

3:30 PM | A
COMPUTATIONAL
STRATEGY FOR
CORROSION
MITIGATION AND
PREVENTION IN
AUTOMOTIVE DESIGN
Julio Mendez
Corrdesa

3:30 PM | Engineering AI
for Automotive
Electrification:
Democratizing Nonlinear
CAE with Cloud-Native
Solvers
Nolan Halliday
SimScale

4:00 PM | Parametric
Design for Weight
Optimization of
Automotive Electric Drive
Modules
Dinesh Kumar Vutukuri
Detroit Engineered
Products INC

4:00 PM | Turning
Simulation Data into AI-
Ready Knowledge:
Solving the Multi-Solver
Puzzle for AI and
Simulation Consumers
Prasad Mandava
Visual Collaboration
Technologies Inc.

4:30 PM | Finding the
Balance Between Direct
Physics and AI
surrogates
Andy Fine
Fine Physics LLC

4:30 PM | Affordable
Simulation Tools for
Specialist Off-Road
OEMs
Rupert Tull de Salis
ZeBeyond Ltd.

5:00 PM: Networking Reception & close

Who Should Attend?

- Simulation & CAE Engineers
- Powertrain, ADAS & Systems
- Developers Automotive Design & R&D
- Teams Digital Engineering Leaders
- Tier 1–2 Suppliers and Consultants



Register TODAY

(Free To Attend With Two Member Credits)

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