



GT CONFERENCE 2017

NOVEMBER 6-7, 2017

The Inn at St. John's, Plymouth, MI

THE LARGEST EVENT FOR SYSTEM SIMULATION



- Over 300 Participants
- 30 Technical Presentations
- 4 Parallel Sessions
- 11 Demonstration Spots
- Preview of GT-SUITE v2018

With the participation of:

Borg Warner, Bosch, Caterpillar, Cummins, Echogen, EC-Power, Faraday Future, FCA, FEV, Ford, GM, Honda, Integral Powertrain Technology, Isuzu, John Deere, Roush, Tecumseh, Tenneco, Tula Technology, Volvo, and Woodward.

Monday, November 6

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|-------|--|---|---|--|
| 8:00 | Breakfast Snacks and Registration | | | |
| 8:50 | Welcome and Opening Statement, GT | | | |
| | Keynote: Role of Modeling and Simulation in xEV Battery Revolution, <i>Chao-Yang Wang, EC-Power</i> | | | |
| | Simulation of Electric Assisted Boosting Systems in a Mild Hybrid Vehicle, <i>Chris Hayes, FEV</i> | | | |
| | GT-DRIVE+ Vehicle Modeling Framework, and GT-SUITE V2018 Features Supporting Vehicle Electrification , GT | | | |
| 10:20 | Refreshments and Demo Stations | | | |
| 10:50 | Combustion | Exhaust + Acoustics | Thermal Management | Hydraulics + Pumps |
| | Development and Validation of Multi-Cyl TPA and DI Pulse Model <i>Lakshmidhar Reddy, Isuzu Technical Center America</i> | Tailpipe Acoustics Predictions of Exhaust Systems with Active and Passive Valve Technologies Utilizing GT-POWER <i>Gabriel Ostromecki, Tenneco</i> | Development and Application of Liquid-Cooled Lithium-Ion Battery Pack Thermal Model <i>Yifan Zhou, FCA</i> | Accelerating the Development of a 2500 Bar Common Rail Fuel System for a Locomotive Application by Using GT-SUITE <i>Christian Altenhofen, Woodward</i> |
| | Air Handling Considerations for Dynamic Skip Fire Applied to a 1.8L Turbo 4-Cylinder Engine <i>Robert Wang, Tula Technology</i> | Low Frequency Acoustic Modeling of the Intake System of a Turbocharged Engine and Exhaust of a Dual System <i>Jared Cromas, GT Amer Schoeb, General Motors</i> | Transient Modeling of a Supercritical CO2 Power Cycle and Comparison with Test Data <i>Vamshi Avadhanula, Echogen</i> | All-Inclusive Simulation Process Development of Piston Pumps with GT-SUITE <i>Guoqi Chen, Caterpillar</i> |
| | Hydrogen Oxygen Combustion Simulation for Space Applications <i>Curtis Collie, Roush</i> | Investigation of Thermal Management in a Diesel Exhaust System for Improved Emissions <i>Timothy Gardner, Tenneco</i> | Advanced Method for Energy-Saving Design of Cabin Air Conditioning, <i>Jon Juszkiewicz, ThermoAnalytics S.Koch, O. Kruse, N. Pizzirani, G. Klotzbücher, Bertrandt,</i> | Modeling a Rotary Compressor in GT-SUITE <i>Dr. Eng Sidnei Oliveira, Tecumseh Products</i> |
| 12:00 | Lunch and Demo Stations | | | |
| 1:45 | Engine | Exhaust Aftertreatment | Vehicle + Electrification | Fluid Systems |
| | Method to Incorporate Port Steady Flow Data into Engine Performance Models <i>Gerry Clark, GM Powertrain</i> | Kinetic Parameter Identification for a DOC Catalyst Using SGB Test and Advanced Optimization Algorithms <i>Federico Millo, Politecnico di Torino Paulo Ferreri, General Motors</i> | BEV Powertrain Model Validation <i>Aakhil Singhania, Robert Bosch</i> | Prime Time Evaluation for Engine Lubrication System <i>Shuran Cheng, FCA</i> |
| | Application of the SuperGen Electro-Mechanical Supercharger to the Miller-Cycle Gasoline Turbocharged Engines <i>Ahmet Guzel, Integral Powertrain</i> | SCR Model Reduction Process for Physics Based ECU Code <i>Syed Wahiduzzaman, GT Martin McMackin, MAN Trucks</i> | 48V Vehicle Simulation <i>Phil Keller, Borg Warner</i> | Integration of Lubrication and Cooling System Models <i>Robert Fry, John Deere</i> |
| | Fast Running Engine Model Based on Measurements of a Heavy-duty Engine for HiL Application <i>J.Anric, Chalmers U, E. Faghani, VOLVO Penta</i> | Analysis of Insulation Structures Applied to Aftertreatment Using GT-SUITE <i>Thomas Harris, Tenneco Automotive</i> | Integration of Complex Electric Motor Models in the Thermal System Simulation by using GT-SUITE's FE Approach, <i>A. Lichtenberger, Faraday Future</i> | Evaporative Emissions Control System Flow Analysis <i>Yi-Hsin Yen, Ford Motor</i> |
| 3:00 | Refreshments and Demo Stations | | | |
| 3:30 | Cummins Perspective on the Use of FRM's in MiL Applications, <i>Benjamin Snyder, Cummins Inc.</i> | | | |
| | Predicting Valvetrain Dynamics Using Simulation with Model Validation, <i>Brice Willis, Honda R&D Americas, Inc.</i> | | | |
| | Graphical User Interface and Enterprise Level Features of GT-SUITE V2018, GT | | | |
| | Future Vision and Closing Remarks, GT | | | |
| 5:00 | Adjourn | | | |
| 5:30 | Evening Reception – Beer Tasting | | | |

Monday, November 6

5:30pm

Evening Reception - Beer Tasting

Join us after the conference for a **beer tasting and hors d'oeuvres**. Network with GT staff and your peers, and sample multiple brews. Free to all attendees.

Tuesday, November 7 2017

9:00am

V2018 SEMINARS AT INN AT ST. JOHN'S

AM Session
9:00 to 12:00

NEW Next Generation Model-Based Vehicle Development from Concept to Verification

SiL&HiL
V2018 New Features in Engine FRMs

Diesel Combustion
Advanced Topics

NEW **VRDE**
New Features with GT

Hydraulics & Lubrication
V2018 New Features

NEW **GEM3D**
Powerful CAD Pre-Processing Features

NEW **GUI**
Keys to Optimal Model Development

NEW **Aerospace Applications**
Environmental Control Systems and more

PM Session
1:30 to 4:30

NEW **BEV & HEV**
Multiphysics Modeling Challenges

NEW **xLINK**
Co-Simulation, Model Management & Optimization

SI COMBUSTION
Advanced Topics

Exhaust Aftertreatment
V2018 New Features

Engine Mechanics
for Friction Reduction

NEW **Flow & Mechanical NVH**
Intake/Exhaust, Driveline, Compressor & Pumps

Thermal Management
V2018 New Features

1/2 day Seminars - Free-of-charge - Participate in 2 Seminars in 1 day

8:30am

TRAINING AT NEW HORIZONS TRAINING CENTER

GT-POWER Engine Modeling
3 Days
Paid

GT-SUITE Introduction Training*
1 Day
Free

**This training will be held in Livonia, MI but please note that we are offering this free of charge training every month at our office in Westmont, IL. The introduction training in Westmont is followed by many application-oriented trainings.*

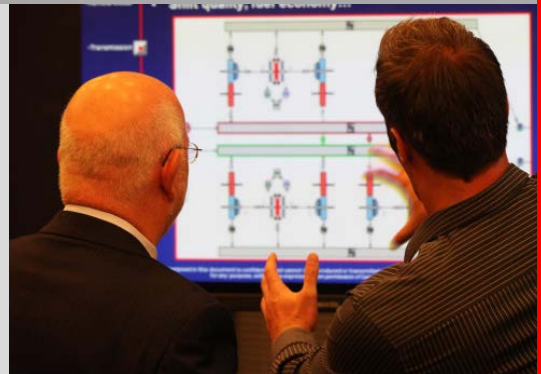
More Information and Registration online: <https://www.gtisoft.com/>

EXHIBITION

DEMO SPOTS

Vehicle Platform
SiL, HiL, RT
VTM
Cabin
Combustion
xEV

xLINK
Lubrication/Hydraulics
Engine and Vehicle NVH
Aftertreatment
Engine Mechanics & Friction
New: GT for Aerospace



GT CONFERENCE 2017

The Largest Conference for System Simulation

- Over 300 Participants from Leading OEMs, Suppliers, and Consultants
- Demo Spots Highlighting New Developments & Applications
- Free-of-charge Conference and Seminars

Registration: www.gtisoft.com

The Inn at St. John's (Conference and Seminars)

44045 Five Mile Road

Plymouth, Michigan 48170, USA

Tel.: (734) 414-0600

Web: www.stjohnsgolfconference.com/

New Horizons Training Center (Training Classes)

14115 Farmington Road

Livonia, Michigan 48154, USA

Tel.: (734) 525-1501

Web: www.newhorizons.com

