



# EVENT-AT-A-GLANCE HIGH EFFICIENCY IC ENGINE SYMPOSIUM

Sunday, April 8 - Monday, April 9

## April 8 SUNDAY

### FUTURE REGULATIONS AND REGULATORY ACTIVITY

**1 p.m.**  
**Moderator Overview**  
Zoran Filipi, Clemson University

**1:15 p.m.**  
**Assessing the Efficiency and Low-Emissions Potential of Future Gasoline Engines**  
Daniel Barba, EPA

**1:55 p.m.**  
**Co-Optima Initiative's Approach to Multi-Mode Combustion Strategies**  
Jim Szybist, Oak Ridge National Lab

**2:35 p.m.**  
**What's the Role of the ICE Going Forward?**  
Greg Pannone, Novation Analytics

**3:15 p.m. Break**

### ADVANCED GASOLINE COMBUSTION STRATEGIES

**3:45 p.m.**  
**Development of High Efficiency Jet Ignition Engines for Multiple End-Use Applications**  
Mike Bunce, Mahle

**4:25 p.m.**  
**Future Internal Combustion Engines for Efficient Contribution to Environment**  
Toshihide Yamamoto, Mazda

**5:05 p.m.**  
**Prerequisites for a Successful Spark Assisted Compression Ignition (SACI)**  
Andreas Kaechele, FKFS

**5:45 p.m.**  
**Introduction of World First Mass Production Variable Compression Ratio Engine "VC-TURBO"**  
Shinichi Kiga, Nissan

**6:30-7:30 p.m. Reception**

## April 9 MONDAY

### ADVANCED LIGHT-DUTY CONCEPTS

**8 a.m.**  
**High Efficiency Engine Requirements for Future Electrified Powertrain Architectures**  
Eric Curtis, Ford

**8:40 a.m.**  
**Engine and Powertrain Efficiency to Meet Standards in the US, China, and Europe from 2020 to 2030**  
Chris Thomas, GAST Strategy Consulting LLC

**9:20 a.m.**  
**Development of High Efficiency Gasoline Engine with Thermal Efficiency over 43%**  
Youngnam Kim, Hyundai

**10 a.m. Break**

### ADVANCED HEAVY-DUTY CONCEPTS

**10:30 a.m.**  
**Heavy Duty Engine Efficiency Potential and the Impact of Emissions Regulation**  
Charlie Roberts, Southwest Research Institute

**11:10 a.m.**  
**High Efficiency Engines for Long Haul Trucks**  
Arne Andersson, Volvo Trucks

**11:50 a.m.**  
**Supercritical CO<sub>2</sub>: A New Opportunity for High Performance Waste Heat Recovery**  
Tom Briggs, Southwest Research Institute

**12:30 p.m. Lunch**

### OUTLOOK, IC ENGINE AND POWERTRAIN SYSTEMS

**1:30 p.m.**  
**Potential of Advanced Combustion for Fuel Economy Reduction in the Light-duty Fleet: Current Status and Research Needs**  
Paul Miles, Sandia

**2:10 p.m.**  
**The Direction of Powertrain Development Toward the Electric Mobility Era**  
Terutoshi Tomoda, Toyota

**2:50 p.m.**  
**Honda Powertrain Strategy and Future ICE Technology**  
Tomonori Niizato, Honda

**3:20 p.m. Break**

### NEW ICE CONCEPTS

**3:50 p.m.**  
**Energy in the Air - Using V2X Information for Real-time Vehicle Powertrain Control and Optimization**  
Scott Hotz, Southwest Research Institute; Anna Stefanopoulou, University of Michigan

**4:10 p.m.**  
**Using Connectivity and Automation to Improve Heavy-Duty Truck Fuel Economy**  
Greg Shaver, Purdue University; Ed Hodzen, Cummins

**4:30 p.m.**  
**A Pragmatic Approach to Maximizing Internal Combustion Engine Efficiency**  
Russell Durrett, GM R&D

**5:10 p.m.**  
**Lubricants - Enabling Future Powertrain Technologies and Enhancing Efficiency**  
Alex Michlberger, Lubrizol

**6 p.m. Symposium Concludes**

### EXHIBIT HOURS

Sunday 1:00-6:00 p.m.  
Monday 8:00 a.m.-6:00 p.m.

### REGISTRATION HOURS

Sunday 10:00 a.m.-4:00 p.m.  
Monday 7:00 a.m.-1:00 p.m.

### EVENT-AT-A-GLANCE

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