### 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

### 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 CO2: 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.**  
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

**3:30 p.m.** Break

### EVENT AT-A-GLANCE

**SUNDAY**

- **April 8**  
  - **1 p.m.** FUTURE REGULATIONS AND REGULATORY ACTIVITY  
  - **1:15 p.m.** Assessing the Efficiency and Low-Emissions Potential of Future Gasoline Engines  
  - **1:55 p.m.** Co-Optima Initiative’s Approach to Multi-Mode Combustion Strategies  
  - **2:35 p.m.** What’s the Role of the ICE Going Forward?  
  - **3:15 p.m.** Break  
  - **3:45 p.m.** ADVANCED GASOLINE COMBUSTION STRATEGIES  
  - **4:25 p.m.** Future Internal Combustion Engines for Efficient Contribution to Environment  
  - **5:05 p.m.** Prerequisites for a Successful Spark Assisted Compression ignition (SACI)  
  - **5:45 p.m.** Introduction of World First Mass Production Variable Compression Ratio Engine “VC-TURBO”  
  - **6:30-7:30 p.m.** Reception

**MONDAY**

- **April 9**  
  - **8 a.m.** ADVANCED LIGHT-DUTY CONCEPTS  
  - **8:40 a.m.** Engine and Powertrain Efficiency to Meet Standards in the US, China, and Europe from 2020 to 2030  
  - **9:20 a.m.** Development of High Efficiency Gasoline Engine with Thermal Efficiency over 43%  
  - **10 a.m.** Break  
  - **10:30 a.m.** ADVANCED HEAVY-DUTY CONCEPTS  
  - **11:10 a.m.** High Efficiency Engines for Long Haul Trucks  
  - **11:50 a.m.** Supercritical CO2: A New Opportunity for High Performance Waste Heat Recovery  
  - **12:30 p.m.** Lunch  
  - **1:30 p.m.** OUTLOOK, IC ENGINE AND POWERTRAIN SYSTEMS  
  - **2:10 p.m.** The Direction of Powertrain Development Toward the Electric Mobility Era  
  - **2:50 p.m.** Honda Powertrain Strategy and Future ICE Technology  
  - **3:30 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

**4:30 p.m.**  
Using Connectivity and Automation to Improve Heavy-Duty Truck Fuel Economy  
Greg Shaver, Purdue University; Ed Hodzen, Cummins

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

**6 p.m. Symposium Concludes**