

TUESDAY—14 MAY, 2019

# BENGALURU

**8:30 REGISTRATION**

**9:30 CONVERGE: A General Purpose CFD Solver**  
Ashish Joshi, *Convergent Science*

**9:45 Steady-State Simulations**  
Kelly Senecal, *Convergent Science*

**10:10 Turbulence Modeling**  
Tarique Shaikh, *Convergent Science*

**10:35 Fluid-Structure Interaction (FSI) Simulations**  
Ashish Joshi, *Convergent Science*

**11:00 BREAK**

**11:30 Volume of Fluid (VOF) Modeling**  
Eric Pomraning, *Convergent Science*

**11:55 Heat Transfer Simulations**  
Rainer Rothbauer, *Convergent Science*

**12:20 Radiation Modeling**  
Akshay Iyer, *Convergent Science*

**12:45 LUNCH**

**14:00 Demo of CONVERGE CFD Software**  
Tarique Shaikh, *Convergent Science*

**14:25 Pumps and Compressors Modeling**  
Geet Nautiyal, *Convergent Science*

**14:50 Gas Turbine Simulations with CONVERGE**  
Scott Drennan, *Convergent Science*

**15:15 BREAK**

**15:45 CONVERGE v3.0 and Beyond**  
Eric Pomraning, *Convergent Science*

**16:15 Closing Remarks**  
Ashish Joshi, *Convergent Science*

THURSDAY—16 MAY, 2019

# PUNE

## 8:00 REGISTRATION

### 9:00 **Welcome and Introduction to CONVERGE**

Ashish Joshi, *Convergent Science*

### 9:20 **Alive and Kicking: The Premature Burial of the Internal Combustion Engine**

Kelly Senecal, *Convergent Science*

### 9:45 **KEYNOTE**

Avinash Kumar Agarwal, *Indian Institute of Technology Kanpur*

### 10:25 **Modeling Soot Particle Size Distribution in Diesel Engines**

Pawan Duvvuri, *Indian Institute of Technology Bombay*

### 10:50 **Flow and Combustion Characteristics of a Spark-Ignition Engine Fueled with Bio-Methane**

Sachin Kumar Gupta, *Indian Institute of Technology Madras*

## 11:15 BREAK

### 11:45 **Capturing Pressure Oscillations in Numerical Simulations of Internal Combustion Engines**

Sreenivasa Rao Gubba, *General Electric*

### 12:10 **Effect of Direct Fuel Injection Strategy on Combustion, Performance and Emissions of a Port Fuel Injected Compressed Natural Gas Engine Using Simulation Tools**

Virendra Jagtap, *COEP-ARAI*

### 12:35 **Accelerating LES and URANS Cycle-To-Cycle Variation Studies via Concurrent Perturbation Method**

Eric Pomraning, *Convergent Science*

## 13:00 LUNCH

### TRACK 1

**14:00 Validation of Pre & Post Spray Impingement Parameters for Diesel Engine Based Exhaust Aftertreatment System Using CONVERGE 2.4**

Shirdi Chakkamadathil, *Cummins Emission Systems*

**14:25 Prediction of Primary Atomization of Urea Water Spray Using CONVERGE**

Swati Ajetrao, *Cummins Emission Systems*

**14:50 Exhaust Aftertreatment Modeling with CONVERGE**

Scott Drennan, *Convergent Science*

### TRACK 2

**Study on Direct Water Injection in a GDI Engine by Using CONVERGE**

Ankit Raut, *Indian Institute of Technology Madras*

**Intake, Exhaust Manifold and Mixer Optimization for Achieving Equal EGR Distribution to Each Cylinder Using 1D-3D Coupled Simulations Approach**

Samir Dhatkar, *FEV India Pvt., Ltd.*

**Influence of Break-Up Model Parameters & Injection Rate Shape in Diesel Spray Characteristics and Comparison of Biodiesel Blends Using CONVERGE**

Shirdi Chakkamadathil, *Vellore Institute of Technology*

## 15:15 BREAK

**16:00 Study of the Effect of Intake Ports in Charge Motion and Combustion Development for PFI & GDI Gasoline Engines**

N. Karthikeyan, *Mahindra & Mahindra*

**16:25 Fundamental Validation of SCR System Modeling Using CONVERGE**

Marua Mohanty and Ganesan Subramaniam, *Caterpillar India Pvt., Ltd.*

**16:50 CONVERGE v3.0 and Beyond**

Eric Pomraning, *Convergent Science*

**17:15 Closing Remarks**

Ashish Joshi, *Convergent Science*