

**Portable Emissions Measurement Systems International Conference &
Workshop**

Moving Into the Future of Emissions Modeling

AGENDA

Thursday, March 22, 2018 7AM-5PM & 6PM-9PM

Friday, March 23, 2018 8:30AM-1PM

University of California, Riverside

**College of Engineering - Center for Environmental Research and Technology (CE-CERT)
at Bourns Technology Center, 1200 Columbia Avenue, Riverside, CA 92507**

DAY 1 – MARCH 22, 2018:

7:00 AM –8:00 AM: CHECK-IN AND CONTINENTAL BREAKFAST

8:00 AM –9:00 AM: OPENING STATEMENTS AND INTRODUCTIONS

Wayne Miller, Associate Director, UCR Center for Environmental Research and Technology (CE-CERT)

Keynote Speaker: [Timothy A. French, EMA, The Opportunity and Need for a New Regulatory Paradigm for HDOH Low-NOx Regulations, and the Role that NOx Sensors and Telematics Might Play](#)

9:00 AM –10:40 AM: DEEM AND SENSORS TECHNOLOGY

Matthew Spears, EMA

- [Evaluation of a New Candidate HD NOx In-Use Compliance Metric](#)

Tom Durbin, UC Riverside

- [Real-World Activity of Heavy-duty Tractors Hauling Container Chassis, Flatbed Trailer, and Tank Trailer](#)

Kent Johnson, UC Riverside

- [Dynamic Emissions and Energy Management \(DEEM\)](#)

Steve Trevitz, Volvo

- [The Role of Telematics-From Engine Development to Customer Support](#)

Yi Tan, California Air Resources Board

- [Evaluation of a NOx Tracking Concept Using Heavy-Duty Truck OBD Data](#)

10:40 AM –11:10 AM: BREAK

11:10 AM-12:10 PM: NEW CONCEPTS

Carl Fulper, U.S. EPA

- [Evaluation of 7 Years of Remote Sensing Data from Colorado to Compare the Real World Emissions Performance of Various Vehicle Makes and Models](#)

Daryl Bear, Mesilla Valley Transportation Solutions

- [An Improved Method for Determining the Real-World Impacts of Vehicle Fuel Efficiency Technologies](#)

Doug Booker, National Air Quality Testing Services

- [Vehicle Interior Air Quality: Volatile Organic Compounds](#)

12:10 PM –1:10 PM: LUNCH

1:10 PM –2:30 PM: NEW CONCEPTS CONTINUED

Nick Molden, Emissions Analytics

- [The EQUA Index and use of PEMS for Optimal Market Information and Surveillance](#)

Andrew Burnette, InfoWedge

- [Results from, and Implications of a Vehicle Remote Sensing Pilot Study in East Central Scotland](#)

Carl Fulper, U.S. EPA

- [Understanding Real-world Activity Data for Light-Duty Conventional, Hybrid and Electric Vehicles](#)

Dave Miller, 3DATX

- [The Democratization of Vehicle Emissions Testing](#)

2:30 PM –3:50 PM: PM AND NEW INSTRUMENTATION

Imad A. Khalek, Southwest Research Institute

- [Evaluation of an On-board High-Sensitivity, Real-time Electronic Particulate Matter Sensor Using Heavy-Duty On-Highway Diesel Engine Platform](#)

Karl Ropkins, University of Leeds

- [Particulate Sensing: Recent Work, Early Observations and Future Directions?](#)

Shun Fukami, Horiba Ltd.

- [Development Tools for Advanced On-Board Emissions Measurements of NMHC and Particulates, Plus a Coaching Tool for Increasing RDE Test Yield](#)

Leta Woo, Emisense

- [Application of PMTrac® Sensors for Low-cost PM Threshold Testing](#)

Ronald Wankers, AVL

- [RDE 3: A Challenge for the Vehicle and the PEMS](#)

3:50 PM – 4:00 PM: BREAK

4:00 PM–5:00 PM:

PANEL DISCUSSION: THIS WILL BE A ROUNDTABLE TO DISCUSS POTENTIAL FUTURE APPLICATIONS OF PEMS

Kent Johnson	University of California, Riverside
Carl Fulper	U.S. Environment Protection Agency
Tim French	Engine Manufacturers Association
Tao Huai	California Air Resources Board

5:00 PM: END OF DAY 1 WORKSHOP

6:00 PM –9:00 PM:

RECEPTION – APPETIZERS, TACOS AND DRINKS

UC RIVERSIDE- BOURNS COLLEGE OF ENGINEERING,
CENTER FOR ENVIRONMENTAL RESEARCH AND TECHNOLOGY (CE-CERT)
1084 COLUMBIA AVENUE RIVERSIDE, CA 92507

DAY 2 -MARCH 22, 2018:

7:30 AM: CONTINENTAL BREAKFAST

8:20 AM –10:00 AM: RESEARCH DEVELOPMENTS

Andre Forcetto, University of Sao Paulo

- [Developing Real Driving Emissions for Brazilian Reality](#)

Cavan McCaffery, UC Riverside

- Real-World Evaluation of PM and PN Emissions from Light-duty GDI Vehicles Using PEMS

<http://www.cert.ucr.edu/events/pems>

Chris Frey, North Carolina State University

- [Comparison of Real-World Vehicle Emissions for Gasoline-Ethanol Fuel Blends](#)

Marc Besch, West Virginia University

- [Real-World Emissions From HDIUT Program – NTE vs Work-based Window, Sensitivity and Limitations of these Methods](#)

Stephanie Maalouf, California Air Resources Board

- [Constraining Variability of On-road Emission Testing for Light Duty Vehicles](#)

10:00 AM-10:30 AM: BREAK

10:30 AM – 11:30 AM: PEMS APPLICATIONS FOR FULL FLEET CHARACTERIZATION

Harry Bradley, Cambustion LTD

- [Transient RDE NO_x Emissions from Gasoline and Diesel Vehicles](#)

Xin Wang, Beijing Institute of Technology

- [Development of Emission Factors for Inland Vessels in China](#)

Shaojun Zhang, Tsinghua University

- [The Challenge to Emission Controls and Recent Developments of PEMS Regulation for Heavy-Duty Vehicles in China](#)

11:30 AM: LUNCH

12:00 PM-1:00 PM: SHORT COURSE

William Porter, Professor of Environmental Sciences, UCR, A Brief Overview of Ground-level Ozone Pollution

Posters - Day 1 and Day 2

Tanzila Khan, North Carolina State University

- Spatial Variation of Real-World Microscale Vehicle Activity and Emissions

Weichang Yuan, North Carolina State University

- Train Speed Trajectory Simulation Based on Real-world Measured Train Speed Trajectory Data

Anuj Kumar, Air Liquide

- Development of a Multicomponent Mixture Containing NO and NO₂ for RDE Testing

Carl Desouza, King's College London

- Reducing No_x Emissions from Generators in London, using SCR Technology and Hybridisation of the Fleet

Nikhil Rastogi, North Carolina State University

- Comparison of Three Commercially Available PEMS for Locomotive Emissions Measurement

Ligiang He, Tsinghua University

- Real-World Emissions of Gaseous Pollutants from City Taxis in China

Xuan Zheng, Tsinghua University

- Characterizing Particulate Polycyclic Aromatic Hydrocarbon Emissions from Diesel Vehicles Based on a PEMS

Jiacheng Yang, University of California Riverside

- Impact of Exhaust Transfer System Contamination on Light Duty Vehicle Certification and In-use PEMS Testing

Kent Johnson, University of California Riverside

- VW In-Use Emissions Testing Program