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2012 PEMS Conference and Workshop

**"Sharing the latest advancements in the development and application of
Portable Emission Measurement Systems"**

Reception: 6:30-9:30 PM Wednesday, March 28, 2012
Conference: 8:30 AM-5:00 PM Thursday, March 29, 2012
Workshop: 9:00 AM-4:00 PM Friday, March 30, 2012

UCR

All Events take place at:
1084 Columbia Ave.
University of California, Riverside
College of Engineering-Center for Environmental Research and Technology
Riverside, CA 92507
www.cert.ucr.edu





Conference, March 29th

08:30	<i>INTRODUCTION:</i>	
UCR	J. Wayne Miller	Introduction
SCAQMD	Ronald O. Loveridge	Mayor, City of Riverside, AQMD Board Member, Welcome Remarks
UCR	Kent Johnson	In-use Testing: Highlights with MythBusters

U.S. EPA

09:10
Larry Oeler & Justin Greuel
REGULATORY PERSPECTIVE:
Updates on the U.S. In-use Compliance Testing Program: Regulatory Status and Policy Development Using PEMS

JRC

Alessio Provenza
Updates on the PEMS Developments for the European Emissions Legislation: Towards a Better Control of Real-World Emissions

CARB

09:50
Mohan Krishnamurthy
LESSONS AND APPLICATIONS:
In-use Testing of Late Model Heavy-duty Diesel Trucks Using a Portable Emissions Measurement System

Cummins

John Bowman
Lessons and Applications in PEMS for On-Highway Measurements

WVU

10:30-10:50
Daniel Carder
BREAK
Future Considerations for In-use Compliance Testing

U.S. EPA

John Koupal
Use of PEMS from a Research and Modeling Perspective, Including Future Plans

EmiStar

Michael Block
Development of Test Cycles, Data Analysis, and Replicating Real-World Equipment Operation

CARB

John Karim
Preliminary Investigation of the Correlation Between In-use Diesel Engine PM Emission Rates and Opacity

Volvo

Steve Trevitz
HDIUT Compliance Project, "Lessons Learned" with Combined Gaseous & PM PEMS

UCR

12:30-13:30
George Scora
LUNCH
Development of a Mobile Energy and Emissions Telematic System (MEETS)

Caterpillar

Eric Walker
Latest Advances in PEMS and their Features: Off-Road Applications

UCR

Kent Johnson
NEW DEVELOPMENTS AND RESEARCH:
Comprehensive Evaluation of AVL's Gaseous PEMS: Laboratory and In-use Correlations: Pre- and Post-2010 Emissions

AVL

Michael Arndt
AVL M.O.V.E. – Comprehensive and Integrated In-Vehicle Measurement Platform

Sensors

Bertrand Lanher
LASAR: High Speed Tools for the In-use Measurement of Nitrogen Containing Species

Sensors

David Booker
Updates on Sensors Latest ECOSTAR Products and Emerging Tools

15:30-15:50
BREAK

15:50
PANEL DISCUSSION:
Consider the above issues and examine pathways to resolutions including testing improvements, limitations of PEMS for in-use testing, and what applications require 1065 compliant PEMS.



Workshop, March 30th

09:00-12:00 & 13:00- 16:00 *RIDE AND DRIVE EVENT (1 hour duration)*

Vehicle#1: AVL VW Jetta Diesel – M.O.V.E car (5 minutes)
Vehicle#2: AVL VW Golf GDI – PEI's demonstrator (5 minutes)

Station#1: AVL InMotion (15 minutes)
Title of the Station: High-performance Virtual Vehicle-driver-road-traffic HIL Environment
Station Owner: Felix Pfister
Supporters: PJ Pankratz, Phil Shaw
Data Analysis: Jetta vehicle

Station#2: AVL M.O.V.E PEMS (15 minutes)
Title of the Station: Real-World, In-use PEMS and EPA Reporting
Station Owner: Roland Wanker
Supporters: Paul Clark, Karl Oberguggenberger
Data Analysis: Jetta vehicle

Station#3: AVL M.O.V.E Combustion and Fuel Consumption Measurement (15 minutes)
Title of the Station: Real-World Portable Combustion and Fuel Consumption Measurement
Station Owner: Dennis Shen
Supporters: Siegfried Roeck
Data Analysis: Jetta and Golf vehicles

11:00-13:00 *TRAINING SEMINAR AND LUNCH: "How-to for PEMS Testing"*

TUEV Karsten Mathies Mobile In-use Measurement in Real Agricultural Applications Following the EU-PEMS Pilot Program for Non-road Mobile Machinery

UCR Joseph Menke & Kent Johnson CAN Interfacing for PEMS: Uncovering the Details of CAN Messaging and Interfacing with Application

WVU Daniel Carder Tips for High Quality and Reliable PEMS Testing

UCR Bill Welch Ocean Going Vessel Testing: A Comparison Between The Semtech DS and the Horiba PG250

UCR Tanfeng Cao The Nuts & Bolts of a Complete 1065 Audit



15:00 *PANEL DISCUSSION:*

This final round table panel will be to consider the previous day's discussion, today's discussions, and the need for future tools to help address issues raised.