2019 PEMS Training Opportunities

As a leading research university in air quality and climate science for over 50 years, UC Riverside is excited to introduce a professional development program that is designed to prepare the engineers, scientists, technicians, and managers of today and tomorrow to address air quality and climate change challenges.

With the assistance of the South Coast Air Quality Management District (SCAQMD), the university is continuing its mission of research and education through the establishment of the Air Quality and Climate Research Training (ACT) Program. This program is designed to prepare professionals of all experience levels across a variety of industries to help the State of California meet its clean air goals through the understanding and application of the latest related research and technologies.

**Featured Course: Collecting Real World Emissions Using Portable Emission (and Activity) Measurement Systems (PEMS)**

**Course Purpose**
This course will prepare attendees for properly using and understanding the latest regulatory approved PEMS equipment, designing and conducting successful field tests for a light duty vehicle fleet, and correctly interpreting emissions and operation data from on-road vehicles for the purpose of certification, research and development, and improving emissions inventories. The lessons learned on the light duty fleet are largely applicable to other sources, such as heavy duty trucks, vehicles and engines, off-road equipment, and marine vessels.

**Who Should Attend**
This course is recommended for engineers, managers and academics who would like to understand how to use PEMS for compliance, research or emissions inventory purposes. Manufacturers and regulatory agencies recommend that prospective employees for their emissions laboratories take this course.

**Course Overview**
The first part of the course is 30 hours of online learning covering emission measurement fundamentals, learning the capabilities of PEMS equipment, theory of calculations and corrections, and a brief review of worldwide emissions standards that largely guide the use of PEMS for compliance testing. Following the online course will be a five day course in Riverside, California dedicated to hands on use of the PEMS equipment, including design, preparation and execution of field testing campaigns, and subsequent analysis and interpretation of the collected data sets and its potential implications.

**Program Faculty:**
- Dr. Kent Johnson
  - Director
- Dr. Tom Durbin
  - Instructor
- Guest Instructors TBD

**Program Offerings**

**Option 1:** AVL PEMS Equipment  
November 4 - 8, 2019

**Option 2:** HORIBA PEMS Equipment  
tentatively  
December 2 - 6, 2019

**Option 3:** Sensors PEMS Equipment  
tentatively  
January 27 - 31, 2020

**Two Week Course Format**
1 Week Online  
(Online Portion will open in October)
1 Week On-Site  
(Dates listed above)

**Program Fees**
- Regular: $5,000*
- Early Bird: $3,500*

*Fees include all materials and online fees. Please note, participants are required to provide their own laptop.

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