Portable Emissions/Activity Measurement Systems
International Conference & Workshop
Shaping the Future of the Emissions in our Global Environment

http://www.cert.ucr.edu/events/pems2014/
April 3-4, 2014

The world is changing quickly in an age of rapid information and networking. In-use testing provides new information not available from the laboratory and is revolutionizing how emissions data is utilized. Portable Emissions Measurement Systems (PEMS) are being used to answer critical questions in the areas of modeling, policy, and fuel economy that come from manufacturers, fleets, regulators and the public. Additionally, Portable Activity Measurement Systems (PAMS) are gaining interest to help increase our understanding of these in-use emissions and fuel efficiency. As PEMS/PAMS continue to shape our future and guide us down different paths, users need to better understand these tools and their strengths and weaknesses. As those applications change, so must the tools, and their implementation. For example, current 1065 compliant PEMS are accurate, but large. Other PEMS/PAMS are smaller or lighter, but can be less accurate.

In this workshop you will learn from experts in the industry about understanding the newest available PEMS/PAMS tools, how to use those tools, and what future tools are needed, based on various emerging markets.

The European Union recently has adopted the European Real Driving Emissions requirements for light duty vehicles. This requirement depends solely on the collection of high quality PEMS data from the in-use fleet. US heavy duty engine manufacturers must also verify their engines are within legal not-to-exceed limits utilizing PEMS. Agencies, large fleets, and researchers must account for the emissions impact of aftertreatment systems, hybrids, alternative fuels, and many other emissions control approaches that are being implemented. However, these elements are hard to characterize without large datasets of information, thus, necessitating smaller, low cost PEMS or PAMS. Both types of PEMS are needed, but how we get there? In-use particle number is also an area of growth and needs to be investigated further.

This year’s conference is expanding to a two-day event at the recommendation of last year’s participants. The agenda will focus on lessons learned both domestically and internationally, advanced vehicle in-use testing (hybrids, all electrics), education, applications, emerging tools, micro PEMS/sensors, PAMS benefits, new measurements (particle number), future needs, new tools and procedures, and many other topics.

Those who should attend are:

- Regulators\Agencies\Port authorities
- Engine and vehicle manufacturers
- Test equipment manufacturers
- In-use testing engineers
- Modeling researchers
- Scientists
- Scientists

The PEMS conference is in its 4th year and has consistently been attended by more than 150 people from over seven nations representing more than 55 different institutions, agencies, and industries. We look forward to seeing you at this year’s PEMS 2014 workshop.

Sincerely,
Kent Johnson

PEMS/PAMS user, developer, and conference coordinator