



BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT

A HEALTHY BREATHING ENVIRONMENT FOR EVERY BAY AREA RESIDENT



# Making Sense of Sensors

## Conference Agenda September 27-28, 2017

### Day One – Wednesday, September 27

- 7:30 a.m.**      **Registration Check-in**  
**Exhibit Opening**  
**Continental Breakfast – *Sponsored by DR DAS LTD & Netronix Inc.***
- 8:30 a.m.**      **Welcome**  
*Wayne Nastri, Executive Officer, SCAQMD*  
*Jack Broadbent, Executive Officer, BAAQMD*  
*Alan Abbs, Executive Director, CAPCOA*
- 8:35 a.m.**      **Opening Comments**  
*Dr. William Burke, Chairman, SCAQMD*
- 8:45 a.m.**      **Keynote Speaker**  
*Kourosh Karimkhany (Weather Underground)*  
Building a global environmental sensor network  
Validation, analysis and interpretation of big data  
Integrating meteorological and air quality data
- 9:15 a.m.**      **State of Sensor Technology**  
*Presenters: Tim Dye (TD Environmental), Andrea Polidori (SCAQMD),  
Stephen Feinberg (U.S. EPA)*  
History and current state of air quality sensor technology  
Field and laboratory sensor evaluation  
Sensor calibration, performance and reliability
- 10:15 a.m.**      **Coffee Break (30 minutes) - Exhibit Open**
- 10:45 a.m.**      **Sensor Network Development and Data Acquisition – Part 1**  
*Presenters: Jesse Kroll (MIT), Sean Bonner (Safecast), Michael Heimbinder (HabitatMap),  
Adrian Dybwad (PurpleAir)*  
Open air quality platform for communities  
Sensor network development and implementation  
Challenges with continuous data in large scale networks

- 11:45 a.m.**      **Lunch (90 minutes) – *Sponsored by EnviroSuite***  
**Exhibit Open**  
*15-Minute AQ-SPEC Laboratory Tours (participants must be signed-up prior to conference)*
- 1:15 p.m.**      **Sensor Network Development and Data Acquisition – Part 2**  
*Presenters: Brian Miles (CGI), Anna Scott (Johns Hopkins University),  
Christa Hasenkopf (OpenAQ), Nicholas Masson (QSense)*  
Open air quality platform for communities  
Sensor network development and implementation  
Challenges with continuous data in large scale networks
- 2:15 p.m.**      **Data Analysis, Interpretation and Mapping – Part 1**  
*Presenters: Melissa Lunden (Aclima), Edmund Seto (University of Washington),  
Katja Krivoruchko (ESRI)*  
Tools to visualize and analyze sensor data: cloud, big data and machine learning  
Using mobile vehicles and sensors to map air pollution  
Integrating regulatory, community, and personal air quality data
- 3:00 p.m.**      **Snack Break (30 minutes) – *Sponsored by Sonoma Technology, Inc., & AirThinX***  
**Exhibit Open**
- 3:30 p.m.**      **Data Analysis, Interpretation and Mapping – Part 2**  
*Presenters: Bart Croes (CARB), Ziv Lautman (Breezometer),  
Robin Ormerod/Matt Scholl, (EnviroSuite)*  
Tools to visualize and analyze sensor data: cloud, big data and machine learning  
Using mobile vehicles and sensors to map air pollution  
Integrating regulatory, community, and personal air quality data
- 4:15 p.m.**      **Perspectives and Expectations - Panel Session**  
*Moderator: Andrea Polidori, SCAQMD*  
*Panelists: Joseph Lyou (Coalition for Clean Air), Eric Stevenson (BAAQMD),  
Luis Olmedo (CCV), Janet Whittick (CCEEB)*  
Expectations and issues with data collected by large-scale sensor networks  
How EJ communities can benefit from using air quality sensors  
Industry and air quality agencies roles in the development of actionable sensor data
- 5:00 p.m.**      **Poster Session**  
**Exhibit Open**  
*15-Minute AQ-SPEC Laboratory Tours (participants must be signed-up prior to conference)*
- 6:00 p.m.**      **End of Formal Program Day 1**
- 6:00-8:00 p.m.** **Networking Reception**  
**Location: [Diamond Bar Golf Course](#) – Less than one mile from SCAQMD Headquarters**  
**Hors d'oeuvres and Beverages Plus No-Host Bar**

## **Day Two – Thursday, September 28**

- 8:00 a.m.**      **Registration Check-in**  
**Exhibit Open**  
**Continental Breakfast - *Sponsored by DR DAS LTD & Netronix Inc.***
- 8:30 a.m.**      **Keynote Speaker**  
*Dean Bethke (Microsoft)*  
Back-end applications for sensor networks  
How industries are using Internet of Things  
Cloud-based solutions for data storage and analysis
- 9:00 a.m.**      **Network Deployments and Applications**  
*Presenters: Michael Hannigan (University of Colorado), William Griswold (UC San Diego), R. Subramanian (Carnegie Mellon University), Vasileios Nasis (Netronix)*  
Case studies from various deployments in the US  
Challenges and lessons learned  
Resources needed to develop large sensor networks
- 10:00 a.m.**      **Coffee Break (30 minutes)**  
**Exhibit Closing Upon Conclusion of Break**
- 10:30 a.m.**      **Integrating Low-Cost Sensors and Satellite Data**  
*Presenters: David Diner (JPL-NASA), Petros Koutrakis (Harvard University), Ronald Cohen (UC Berkeley)*  
Integration of satellite observations with surface sensor measurements  
Using satellite-based remote sensing to assess human exposures to air pollution  
Connecting space-based observations with dense sensor networks
- 11:30 a.m.**      **Sensor Data Dissemination - Panel Session**  
*Moderator: J.R. DeShazo (UCLA)*  
*Panelists: Veronica Eady (CARB), Paul English (CDPH), Andrea Clements (U.S. EPA), Abhijit RS (EDF)*  
Closing the gap between traditional air monitoring and sensor data  
Communicating sensor data findings to the public  
Integrating sensor data in health related studies
- 12:30 p.m.**      **Closing Remarks**  
*Ben Benoit, Vice-Chairman, SCAQMD*
- 12:45 p.m.**      ***15-Minute AQ-SPEC Laboratory Tours (participants must be signed-up prior to conference)***