

UCR Bourns College of Engineering Center for Environmental Research & Technology and the Office of Sustainability presents:

## CLEAN AIR DAY WEBINAR

**OCTOBER 7, 2020**

**9:00 AM - 11:15 AM**

Join us on Clean Air Day as we welcome all members of the community to attend this free webinar to learn about how transportation in our region is impacting our health and air quality. We'll discuss how we as environmental educators and collaborators can contribute to a solution by using emerging technologies such as personal air monitors and intelligent transportation routing. You will also hear from key industry leaders in our community through an interactive panel discussion, and one lucky attendee will win their own personal air monitor!

## AGENDA

### **9:00-9:05: WELCOME**

Matt Barth, Director, CE-CERT

### **9:05-9:20: ENVIRONMENTAL SUSTAINABILITY AT UC RIVERSIDE: AN OVERVIEW OF ACTIVITIES & CLEAN AIR IMPACTS**

Fortino Morales III, Sustainability Officer, Office of Sustainability

### **9:20-9:40: WEARABLE AIR MONITORING TO ASSESS PERSONAL EXPOSURE AND ENVIRONMENTAL JUSTICE**

Dr. Sunni Ivey, Assistant Professor, CE-CERT

### **9:40-10:00: RE-ROUTING TRUCKS TO REDUCE POLLUTANT EXPOSURE IN NEIGHBORHOODS: A CASE STUDY FOR THE SAN BERNARDINO AIRPORT**

Dr. Jill Luo, Assistant Project Scientist, CE-CERT

### **10:00-10:20: HOW COVID19 HAS IMPACTED TRANSPORTATION IN SOUTHERN CALIFORNIA**

Dr. Shams Tanvir, Assistant Professor, Cal Poly San Luis Obispo

### **10:20-10:25: BREAK: RAFFLE INFO & TAKE THE CLEAN AIR PLEDGE**

### **10:25-11:00: PANEL DISCUSSION AND Q&A WITH ACLIMA, CALIFORNIA AIR RESOURCES BOARD, COALITION FOR CLEAN AIR, AND SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT.**

- Dr. Melissa Lunden, Chief Scientist, Aclima
- Vernon Hughes, CARB
- Dr. Jenny Lentz, Program Manager, CCA
- Dr. Andrea Polidori, Advanced Monitoring Technologies Manager, SCAQMD
- Moderator: Dr. Barry Wallerstein, Senior Policy Fellow, CE-CERT

### **11:00-11:10: HOW THE COMMUNITY CAN GET INVOLVED!**

Nicole Cleary, Deputy Director, CE-CERT

Michelle Burroughs, Deputy Director, CHC SOM

### **11:10-11:15: CLOSING STATEMENTS & RAFFLE WINNER**

Matt Barth, Director, CE-CERT



**CLICK HERE:**



# WELCOME



HOST

**Dr. Matt Barth** is the Director of CE-CERT and the Yeager Families Chair. Professor Barth's research focuses on applying engineering system concepts and automation technology to Transportation Systems, and in particular how it relates to energy and air quality issues. His current research interests include Intelligent Transportation Systems, Vehicle Activity Analysis, Transportation/Emissions Modeling, Electric Vehicle Technology, and Advanced Sensing and Control. Professor Barth is active in the U.S. Transportation Research Board currently serving on the Transportation and Air Quality Committee and the Intelligent Transportation Systems Committee. He has also served on a number of National Research Council (NRC) committees. Professor Barth has also been very active within IEEE Intelligent Transportation System Society.

## SPEAKERS

**Dr. Cesunica (Sunni) Ivey** is an Assistant Professor in the Chemical and Environmental Engineering Department at UC Riverside. She is also an affiliate faculty member of CE-CERT, the School of Medicine BREATHE Center, SPP Center for Geospatial Sciences, and CNAS Environmental Toxicology Graduate Program. She earned her Ph.D. in environmental engineering from the Georgia Institute of Technology in 2016 with a minor in GIS and city planning. She is a former postdoctoral researcher in the Department of Physics at the University of Nevada Reno and also worked as a visiting scientist at NOAA's Geophysical Fluid Dynamics Laboratory before joining UC Riverside in summer of 2018. Her research expertise centers on chemical transport modeling, source apportionment, data assimilation, and modeling for exposure-health studies.



**Dr. Ji (Jill) Luo** received her Ph.D. degree in environmental engineering from the University of California, Riverside, USA in 2015. She is currently an Assistant Research Specialist at the College of Engineering - Center for Environmental Research and Technology, UC Riverside, USA. Her research interest focuses on ITS strategies to mitigate human exposure to traffic-related air pollutants. This topic includes routing strategies and alternative travel modes to reduce traffic-related air pollutants and greenhouse gases.



**Fortino Morales III** is the Sustainability Officer at the University of California, Riverside. As the Sustainability Officer, he leads zero waste, greenhouse gas, and Green Labs initiatives at UCR. He also serves on the Committee of Sustainability, which facilitates and promotes the implementation of sustainability goals, strategies, and resources investments in support of UCR's overall sustainability policies and practices. He received both his B.S. in Environmental Sciences and his Masters of Public Policy from UC Riverside.



**Dr. Shams Tanvir** is an Assistant Research Professor at Cal Poly SLO. His research aims at the development and characterization of transportation technologies that minimize energy consumption and emissions while enhancing mobility efficiency and equity. Dr. Tanvir is currently investigating the effect of localized traffic changes due to COVID-19 pandemic and consequent air quality changes in the South Coast Air Basin. Dr. Tanvir received his Ph.D. in Transportation Systems Engineering from North Carolina State University. After, Tanvir was a research associate for the school's Institute for Transportation Research and Education (ITRE) where he worked with state transportation agencies. Tanvir moved to California and finished his postdoc fellowship at the University of California, CE-CERT.





**Nicole Cleary** is the Deputy Director CE-CERT where she oversees the day-to-day operations of the largest research center at UC Riverside. CE-CERT's mission is to solve the most pressing environmental and sustainability issues in our region today by innovating technology and educating the next generation of engineers. In her role, Nicole oversees the administration team, the facilities operations of the CE-CERT campus, marketing, outreach, and events, as well as leads with the Director strategic planning and multidisciplinary research efforts.

**Michelle C. Burroughs, MPH** is the Finance Administrative Officer, Social Medicine, Population and Public Health (SMPPH) and Deputy Director, Center for Healthy Communities (CHC). She leads the CHC in promoting community-based, community-partnered, and population health research. Addressing health disparities and inequalities in communities of color. Prior to joining the University of California Riverside's School of Medicine; Michelle was the Director of Health and Evaluation at Orange County United Way.



# PANELISTS

**Dr. Barry Wallerstein** is a Senior Policy Fellow at the UC Riverside School of Public Policy. Wallerstein served as Executive Officer of the South Coast Air Quality Management District (SCAQMD) from 1997 to 2016. Before joining SCAQMD, Barry Wallerstein was previously an Environmental Control Administrator for Northrop, and was on the rule development staff in the Mobile Source Division of the California Air Resources Board. He has also served as Co-President of the National Association of Clean Air Agencies. Barry Wallerstein holds a doctorate in environmental science and engineering from UCLA, and M.S. and B.S. degrees in biological science.



MODERATOR

**Vernon Hughes** leads the Community Assessment Branch in CARB's Office of Community Air Protection, which was established in 2017 in response to AB 617. The Community Air Protection Program's focus is to reduce exposure in communities most impacted by air pollution. Vernon's prior experience at CARB includes overseeing emissions inventory development and air quality modeling in support of SIPs, regulatory programs, and special studies.



**Dr. Jennifer Lentz** is the Program Manager at the Coalition for Clean Air (CCA) where she manages a statewide air quality monitoring network and works with community members and educators to improve their awareness of the connection between air quality and health. Dr. Lentz serves on LA County's Sensitive Ecological Areas Technical Advisory Committee (SEATAC) and was one of the lead authors of the 2015 report commissioned by Mayor Garcia advising him on how to make Long Beach the model of a climate resilient city. Dr. Lentz received her B.A. from Hamilton College and her Ph.D. from Louisiana State University.





# PANELISTS



**Dr. Melissa Lunden** is the Chief Scientist at Aclima which has introduced an entirely new way to measure hyperlocal air pollution and greenhouse gases at scale, at the resolution needed to target emissions reductions and protect human health. Melissa's career has focused on the transport and fate of pollutants in the environment. She received her PhD at the California Institute of Technology with an emphasis on aerosol science. As a scientist at the Lawrence Berkeley National Laboratory, she directed atmospheric and environmental processes research. Melissa has always been interested in how different environments influence exposure to highly dynamic pollutants. This variability underscores the need for ubiquitous hyperlocal environmental monitoring that she and the team at Aclima have pioneered.

**Dr. Andrea Polidori** is the Advanced Monitoring Technologies Manager at the South Coast AQMD. He oversees the Air Quality Sensor Performance Evaluation Center (AQ-SPEC), a program created to test the performance of commercially available low-cost sensors. He is responsible for the implementation of South Coast AQMD's Rule 1180, which mandates the execution of real-time air quality measurements near the fenceline of all refineries in the South Coast Air Basin and in nearby communities. He is also responsible for implementing air monitoring strategies to satisfy the requirements of Assembly Bill (AB) 617, a State Law created to address the disproportionate impacts of air pollution in environmental justice communities.



# RESOURCES FOR LEARNING ABOUT AIR QUALITY IN THE INLAND EMPIRE

## AIR QUALITY BASICS

WHY SHOULD I CARE  
ABOUT AIR  
POLLUTION?

CARB'S COMMUNITY  
AIR RESOURCE  
WEBSITE

## AIR POLLUTION LIVE MAPS

AQAIR AIR  
QUALITY APP

FIRE +  
SMOKE MAP

UNDERSTANDING  
AN AQI  
CALCULATOR

## GETTING INVOLVED

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graph TD; A[GETTING INVOLVED] --> B[UCR'S COMMUNITY AIR WEBSITE]; A --> C[ALA'S NATIONAL SOCIAL MEDIA DISCUSSION]; B --> D[REPORTING POLLUTORS]; C --> E[TAKE THE CLEAN AIR PLEDGE!];
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UCR'S  
COMMUNITY  
AIR WEBSITE

ALA'S NATIONAL  
SOCIAL MEDIA  
DISCUSSION

REPORTING  
POLLUTORS

TAKE THE  
CLEAN AIR  
PLEDGE!

## AIR MONITORS

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graph TD; F[AIR MONITORS] --> G[HOST A FREE AIR QUALITY MONITOR]; F --> H[SCIENTIFIC COMPARISON OF LOW COST SENSORS];
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HOST A FREE  
AIR QUALITY  
MONITOR

SCIENTIFIC  
COMPARISON OF LOW  
COST SENSORS





**THANK  
YOU FOR  
JOINING!**

