



UNIVERSITY OF CALIFORNIA
UCRIVERSIDE | CE-CERT

***1084 Columbia Avenue,
Riverside CA 92507***

CE-CERT is dedicated to addressing society's most pressing environmental challenges in air quality, climate change, energy and transportation through research, education and public service



**150 student
employees**

**60 faculty &
engineers**

**\$ 30 million in
ongoing
research**

**30
laboratories
and testbeds**



CE-CERT RESEARCH FOCUS: AIR QUALITY, TRANSPORTATION, AND ENERGY



Clean Air

Quantifying and Measuring Emissions
Toxic, Ozone and PM formation



Renewable Fuels

Aqueous Processing of Biomass to Fuels
Thermochemical Processing of Biomass to Fuels

Renewable Electricity & Smart Grids

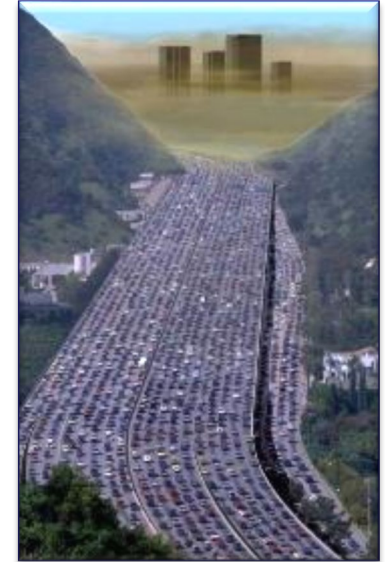
Advanced Solar Energy Production
Energy Storage
Energy Management

Climate Change Impacts

Impacts of our fuels
Cloud formation & impacts

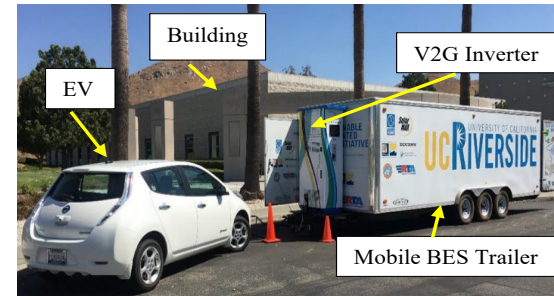
Sustainable Transportation

Intelligent Transportation Systems
Connected and Automated Vehicles
Electric and Hybrid vehicle integration
Ecodriving, Shared Vehicle Systems





CE-CERT's Latest Initiatives



Projects with the City of Riverside:

- Innovation Corridor & Smart Intersection
- Community Air Quality Monitoring
- Transformative Climate Community Program

Renewable Energy Projects

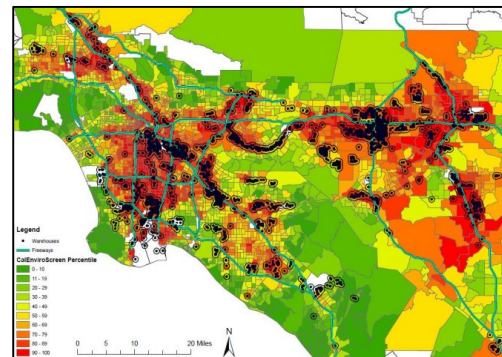
- Vehicle to Grid research
- Hydrogen Program
- Lithium Valley

Sustainable Freight

Working with Industry on new technology deployment: CalTestBed, SCEIN

OMEGA Research Program

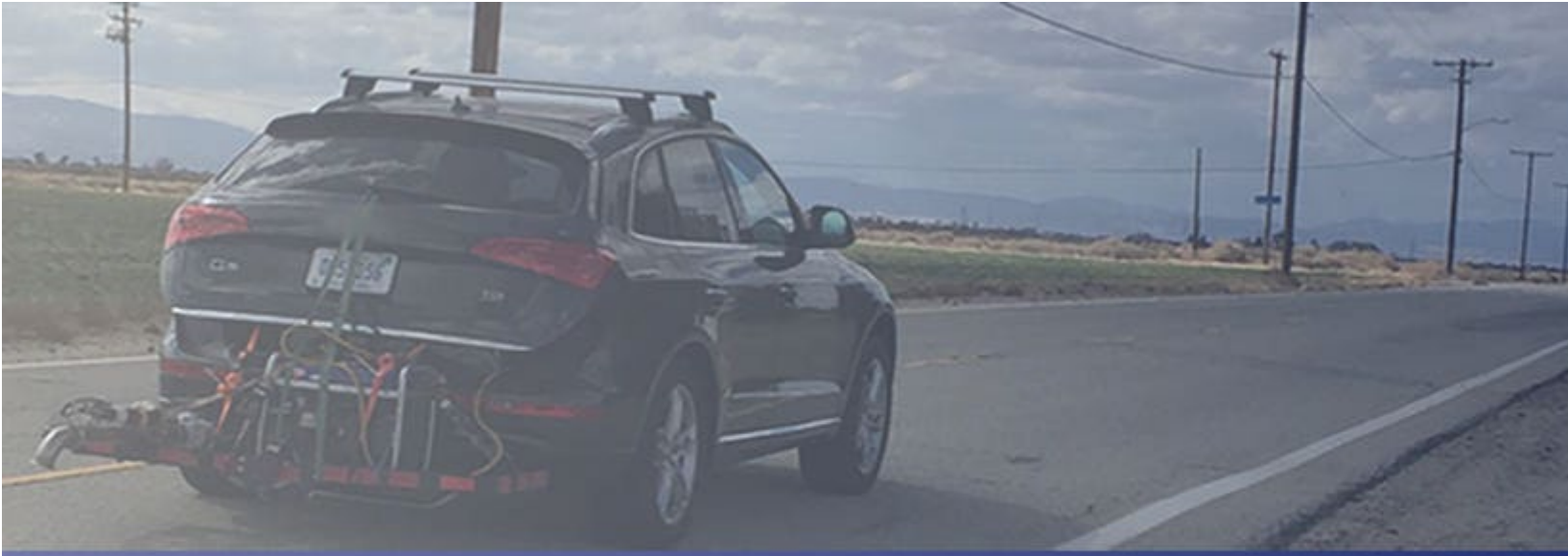
Objective **M**easurement/**M**onitoring/**M**itigation of **E**missions from **G**oods Movement and Impacts on **A**ir Quality



CARB in Riverside



PEMS Conference: March 17-18th, 2022



PEMS2022: Moving towards Onboard Sensing, Analysis, and Reporting (OSAR)

UCR CE-CERT

11th ANNUAL
INTERNATIONAL
PEMS
CONFERENCE

March 17th & 18th
2022

- **Reception:** March 17th, 2022 6pm: CE-CERT Front Lobby
- **Technical Program:** Thursday – Friday, 8am – 5pm, Riverside Marriott
- **Keynote:** Dr. Chris Frey, Deputy Assistant Administrator for Science Policy, U.S. EPA



RA AUTOMOTIVE
SOFTWARE SOLUTIONS

 **Cambustion**

 **ema** Truck & Engine
Manufacturers
Association



CE-CERT 30th Anniversary

2012- 2022



April 15th, 2022

To Register: <https://www.cert.ucr.edu/ce-cert-30th-anniversary>

- *Alumni Research Symposium:* 9am - noon
- *Awards Recognition Lunch:* noon – 2pm
- *Research Open House:* 2pm – 4pm
- *Celebration Dinner and Program:* 6pm – 9pm, UCR Alumni Center

Sponsorship Opportunities:

30 YEARS, 3 FUNDS, \$90K
**EMPOWER THE NEXT GENERATION OF
ENGINEERS BY MAKING A GIFT TODAY!**



Dr. Chris Frey

Deputy Assistant Administrator for
Science Policy in the Office of Research
and Development as an appointee of the
Biden/Harris administration.