Faraz Enayati Ahangar

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EDUCATION

Ph.D. Mechanical Engineering — University of California Riverside
M.S. Mechanical Engineering — University of California Riverside
B.S. Mechanical Engineering — Sharif University of Technology (Iran)

SKILLS

Programming Languages: Python, R, MATLAB, C#, SQL, VBA
Modeling and Designing Software: ArcGIS Pro, JMP, SolidWorks, AutoCAD, ANSYS

WORK EXPERIENCE

South Coast Air Quality Management District — **Diamond Bar**
Air Quality Specialist — 2019- present
Air quality monitoring and analysis for Assembly Bill 617 – Community Air Protection Program; data analysis and visualization for various projects, reports, and presentations; developing data display dashboards.

University of California, Riverside — **Riverside, CA**
Research/Teaching Assistant — 2014 - 2018
Research on air quality and dispersion modeling; holding discussion sections, lectures, labs, and exams.
Class instructor and assistant; classes taught: Mechanical Engineering Modeling and Analysis, Phenomena, Mechanics of Materials, Dynamics, and Introduction to Engineering Computation.

Los Angeles Department of Water and Power (Energy Reconciliation Group) — **Los Angeles, CA**
Student Engineer — 2017- 2018
Data mining & machine learning; website development; database design and management; regulatory reporting.

SELECTED PROJECTS

AB 617 Community Air Monitoring. South Coast Air Quality Management District (2019-present)
Air quality monitoring, data analysis, and visualization in environmental justice communities (website)

Satellite-Derived PM2.5 Grids with Dispersion Model Downscaling: A Method to Generate Continuous Long-Term Fine Particulate Data for Community-Scale Air Quality Health Research. Funded by NASA Earth Sciences Division Applied Sciences Program (2017-2018) (published paper)

Climate Impact of Manure Management from California Dairies. Funded by UCR (2018) (published paper)

Time-of-Use Study. Los Angeles Department of Water and Power (2017-2018)
Historical data analysis to suggest a new time-of-use period for electricity rates of LADWP.

Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies. Funded by California Air Resource Board (2014-2017) (final report)

SELECTED HONORS AND AWARDS

Dissertation Year Program Fellowship, University of California, Riverside (2018)
Graduate Dean's Dissertation Research Grant, University of California, Riverside (2018)
Outstanding Teaching Assistant Award, University of California, Riverside (2016 and 2018)
Green Grant (G3), UCR Graduate Student Association (2017)
NCST Graduate Fellowship, National Center for Sustainable Transportation (2016 – 2017)
Chancellor's Distinguished Fellowship, University of California, Riverside (2013 – 2016)
National Elite Foundation Fellowship, Sharif University of Technology (2008 – 2012)
Gold Medal, 3rd International Astronomy Olympiad, Simeiz, Crimea (2007)

SELECTED PUBLICATIONS

Ahangar, F.E., Pakbin, P., Hasheminassab, S., Epstein, S.A., Li, X., Polidori, A., Low, J., 2021. *Long-term trends of PM2. 5 and its carbon content in the South Coast Air Basin: A focus on the impact of wildfires*. Atmospheric Environment, 255, p.118431.

Ahangar, F.E., Freedman, F.R. and Venkatram, A., 2019. *Using low-cost air quality sensor networks to improve the spatial and temporal resolution of concentration maps.* International journal of environmental research and public health, 16(7), p.1252.

Amini, S., Ahangar, F.E., Heist, D., Perry, S., Venkatram, A., 2018 *Modeling Dispersion of Emissions from Depressed Roadways.* Atmos. Environ. 186, 189-197.

Ahangar, F.E., Heist, D., Perry, S., Venkatram, A., *2017. Reduction of Air Pollution Levels Downwind of a Road With an Upwind Noise Barrier.* Atmos. Environ. 155, 1-10.

Amini, S., Ahangar, F.E., Schulte, N., Venkatram, A., 2016. *Using Models to Interpret the Impact of Roadside Barriers on Near-road Air Quality*. Atmos. Environ. 138, 55-64.

SELECTED CONFERENCES & PROCEEDINGS

Lim, C., Hasheminassab, S., Ahangar, F.E., Sowlat, M.H., Pakbin, P., Polidori, A. *December. Spatial variability of traffic-related air pollution reductions in the South Coast Air Basin during the COVID-19 stay-at-home period*. In AGU Fall Meeting, 2020

Ahangar, F.E, Hasheminassab, S., Pakbin, P., Polidori, A., Katzenstein, A., Low, J. *Long-Term Trends in Chemical Composition of PM2.5 in the South Coast Air Basin: A Focus on Time-integrated and Continuous Carbon Measurements*. AAAR 37th Annual Conference, October 14-18, 2019

Schulte, N., Amini, S., Ahangar, F.E., and Venktaram, A. *The Impact of Road Structures and Buildings on Urban Air Quality,* in 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Bologna, Italy, October 9-12, 2017

Ahangar, F.E., Amini, S., Venkatram, A., *Using Vegetation to Enhance the Impact of Solid Barriers on Near-road Air Pollution*, in A&WMA's 110th Annual Conference & Exhibition, June 5-8, 2017.

PROFESSIONAL ASSOCIATIONS

The American Association for Aerosol Research
Air & Waste Management Association
American Meteorological Society

LEADERSHIP & VOLUNTARILY EXPERIENCE

Mechanical Engineering Graduate Student Association Sustainability and Communication officer, University of California, Riverside, CA (2017 - 2018)

Mechanical Engineering Graduate Student Association Webmaster, University of California, Riverside, CA (2016 – 2018)

Head of Observational Astronomy Committee, National Astronomy Olympiad Summer School, Young Scholars Club, Tehran, Iran (2012 – 2013)

Head of Astronomy and Physics Committee, 3rd Sharif National Student Competition, Sharif University of Technology, Tehran, Iran (February - June 2012)

References & CV

Will be provided upon request