Soroush E. Neyestani

Curriculum Vitae

Department of Environmental Sciences
University of California, Riverside
Riverside, CA 92507
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Research Interests

- Air quality and climate modeling
- Atmospheric aerosols
- Atmospheric radiation
- Geospatial data analysis

Education

Ph.D., Engineering — 2017 - 2021
University of Georgia
Advisor: Rawad Saleh

M.Sc., Environmental Engineering - Air Pollution — 2013 - 2016
University of Tehran
Advisor: Khosro Ashrafi & Majid Shafiepour

B.Sc., Mining Engineering - Extraction — 2007 - 2012
Azad University - South Tehran

Research Experience

Postdoctoral Scholar — 2021 -
Department of Environmental Sciences
University of California, Riverside

Graduate Research Assistant — 2017 - 2021
College of Engineering, University of Georgia
Projects: (1) I modified emission inventory then calculated gasoline vehicles' direct radiative effect and attributable fraction over the U.S. using WRF-Chem. (2) I added a parameterization for brown carbon light absorption to WRF-Chem and evaluated direct radiative effect during a biomass burning event.

NASA DEVELOP Intern — 2018 (Fall)
NASA DEVELOP node (Georgia, US)
Project: Water turbidity and sea surface temperature are retrieved over Golfo Dulce in Costa Rica using Aqua-MODIS and Landsat-OLI.

Graduate Researcher — 2013 - 2016
Graduate Faculty of Environment, University of Tehran
Project: I detected (MODIS/AIRS) dust storms over the Middle East and simulated (WRF-Chem) the effect on air quality and radiation.

Teaching Experience

Teaching Assistant — 2021 (Spr.), 2020 (Spr.)
College of Engineering, University of Georgia
Course: Air pollution engineering

Honors and Awards

Excellence in graduate research award — 2020
College of Engineering, University of Georgia

4.5 million (IR) Rials grant to pursue M.Sc. degree — 2016
Graduate Faculty of Environment, University of Tehran

Top 5% in civil/environmental engineering national graduate entrance exam — 2013

Skills

- Regional climate models (WRF-Chem)
- Emission models (SMOKE)
- Programming languages (Fortran, MATLAB, Python, and NCL)
- Geospatial data analysis (QGIS & GEE)
- LaTeX typesetting system
- Unix based operating systems

Memberships

- American Meteorological Society (AMS)
- American Geophysical Union (AGU)

Selected Graduate Courses

Engineering Mathematics, Computational Engineering, Advanced Fluid Mechanics, Aerosol Science and Engineering, Atmospheric Aerosols, Atmospheric Chemistry, Air Quality Modeling, Air Pollution Meteorology, Climatology.

Publications

- Islam, M.; **Neyestani, S. E.**; Saleh, R.; Grieshop, A. P., Quantifying brown carbon light absorption in real-world biofuel combustion emissions. *Aerosol Science and Technology*. Submitted.
- **Neyestani, S. E.**; Saleh, R., Observationally constrained representation of brown carbon emissions from wildfires in a chemical transport model. *Environmental Science: Atmospheres*. Submitted.
- **Neyestani, S. E.**; Walters, S.; Pfister, G.; Kooperman, G. J.; Saleh, R., Direct Radiative Effect and Public Health Implications of Aerosol Emissions Associated with Shifting to Gasoline Direct-Injection (GDI) Technologies in Light-duty Vehicles in the United States. *Environmental Science & Technology* **2020**, 54 (2), 687-696. doi:10.1021/acs.est.9b04115.
- Ashrafi, K.; Motlagh, M. S.; **Neyestani, S. E.**, Dust storms modeling and their impacts on air quality and radiation budget over Iran using WRF-Chem. *Air Quality Atmosphere and Health* **2017**, 10 (9), 1059-1076. doi:10.1007/s11869-017-0494-8.

Conference Presentations

- AAAR 37th Annual Conference (talk). *Portland, OR.* October 2019.
- 10th International Aerosol Conference (poster). *St. Louise, MO.* September, 2018.

Seminars

- Graduate seminar course at the University of Georgia. *Athens, GA.* April 2020.
- Riverbend research highlight seminar at the University of Georgia. *Athens, GA.* June 2019.

Media Coverage

- Obama helped make cars more efficient, but now they spew black carbon. *Grist*, February 2020.
- Fuel efficient tech may threaten climate, public health. *Eurekalert*, January 2020.

Last updated: Aug. 2021