UNIVERSITY AT ALBANY
State University of New York

Department of Environmental & Sustainable Engineering (ESE)
Atmospheric Sciences Research Center (ASRC)

National Science Foundation
WHERE DISCOVERIES BEGIN

Research Experiences for Undergraduates (REU)

REU Site: Atmospheric research and engineering solutions for climate change and environmental challenges

Overview

- NSF-funded summer research opportunity for U.S. undergraduate students.
- 10 week research experience focused on atmospheric sciences and environmental engineering solutions to address climate change and environmental challenges.
- based at UAlbany's state-of-the-art ETEC building

Key features

- Broaden research experience and climate change awareness
- Enhance professional development
- Enhance effective communication, self-confidence, and leadership

Financial support

Stipend: $6,000 for 10 weeks
Travel: support for local travel and conference
Subsistence: Housing and meals provided

Emerging Technology and Entrepreneurial Center (ETEC) was awarded 2023 Green Building of the Year by U.S. Green Building Council of Upstate New York

Example Research Topics

1. Green, low-cost sorbents for PFAS removal and stabilization (Liang)
2. Electrochemical resource recovery from waste streams (Kim)
3. Low-cost air quality monitoring in indoor and outdoor environments (Bari)
4. Carbon and nutrient cycling in fire-impacted environments (Huang)
5. Stormwater management under climate change conditions (Liu)
6. Regional climate change and variability (Minder)
7. Paleoclimatology and marine geochemistry (Murty)
8. Atmospheric chemistry and air quality measurements (Schwab)
9. Buoy-based air-sea interaction measurements (Miller)
10. Weather-air quality interaction/wildfire smoke aerosols (Lu)
11. Turbulence modelling, weather prediction, renewable energy (Basu)
12. Aerosol-cloud-chemistry interactions (Lance)
13. Renewable energy: weather and climate effects on wind/solar (Freedman)
14. Extreme weather in the US Caribbean (González-Cruz)
15. Air quality monitoring in community schools (Zhang)
16. Carbon emissions and air pollution (Yu)

Eligibility

- U.S.-citizen or permanent residents
- Grade point average (GPA) of at least 2.7 or higher
- Available for follow-up research activity (virtual) in Fall/Spring
- Preference will be given to juniors and seniors with background in environmental engineering, atmospheric and environmental sciences, and other related disciplines.
- Students who are members of underrepresented groups are encouraged to apply.

Mentors

Md. Aynul Bari, Principal Investigator
Assistant Professor, ESE

Scott Miller, Co-Principal Investigator
Senior Research Faculty, ASRC

Yanna Liang
Professor and Chair
ESE

Jorge González-Cruz
Professor of Empire Innovation
ASRC, UAlbany

Sukanta Basu
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James Schwab
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Justin Minder
Associate Professor
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Jie Zhang
Research Faculty
ASRC

Sujata Murty
Assistant Professor
DAES

Xueying Yu
Research Faculty
ASRC

How to Apply

- Applications are open (Deadline: **February 1, 2025**)
- Program dates: **May 26 to August 2, 2025**
- Please reach out to Dr. Bari (reu_ese.asrc@albany.edu) with following application materials and submit applications online: https://www.albany.edu/cnse/research-experiences-undergraduates
  1. Copy of unofficial transcripts
  2. Resume
  3. Statement of purpose (describe how this REU program will help achieve your short- and long-term goals)
  4. One reference (we will contact for reference letter)