This Innovations in Graduate Education program provides a yearly cohort of 12 graduate students with funding for travel, lodging, and leadership and professional development training to support a one-to-six-month research internship abroad. During the global experience, students will collaborate with experts and local communities to address complex sustainability challenges associated with interconnected water-energy-food systems.

### Research Locations

**Colombia**
Hosted by the Jorge Tadeo Lozano University in Bogotá, Colombia, graduate students will conduct field work in the Páramo of Chingaza to study the effects of climate and land use changes on water provision, food security, and energy generation in this high-altitude ecosystem in the Andes mountains.

**Ecuador**
Students researching in Ecuador will be hosted by the Charles Darwin Foundation in the Galápagos. Research themes include: the role of tourism in food security and sovereignty; waste management and recycling; improving health care, education, and inclusion; socially and environmentally responsible transportation; and more.

**Mexico**
Graduate students studying microalgae-bacteria systems for wastewater treatment for low-income communities will be hosted by the Universidad Nacional Autónoma de México in Mexico City.

**Peru**
Hosted by the National University of Engineering in Lima, Peru, students will conduct field work to investigate the impacts of land use changes on wetlands in urban environments.

**New Zealand**
Students researching in New Zealand will be hosted by the University of Auckland. Research topics include using seawater as magnesium source for phosphorus recovery; wastewater treatment using anaerobic electrochemical membrane bioreactors; and microbial chain elongation for the synthesis of biofuels and commodity chemicals.

**United Kingdom**
Graduate students studying microbial biotechnology for waste treatment and resource recovery will be hosted by the Centre for Environmental Health and Engineering, a World Health Organization collaborating center for the protection of water quality and human health at the University of Surrey in Guildford, England.

### How to Apply
Visit our online application portal* at [bit.ly/nex-opp-22](https://bit.ly/nex-opp-22) to upload a resume, transcript, one-page statement of research interests, and contact information for two references. Your research statement should describe how working at your chosen location will contribute to your graduate thesis and career aspirations. Graduate students from any institution in the United States (U.S.) are encouraged to apply, and U.S. citizenship is not required.

**Application Deadline:** December 1 for 2023 program consideration.

*Note: The online application form requires Penn State Web Access. If you are not a current Penn State student, you must create a Friends of Penn State account at [accounts.psu.edu](https://accounts.psu.edu) to apply.

### More Information
For additional information, please contact Dr. Rachel Brennan, program director and professor of civil and environmental engineering, at [rab44@psu.edu](mailto:rab44@psu.edu).

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