Mapping Intersections in Water Inequities  
**Advisor:** Dan Bain, Geology and Environmental Science  
**Student:** Maggie Lincoln, Geology and Environmental Science

Pitt Regional Campus Greenhouse Gas Inventor(ies)  
**Advisors:** Melissa Bilec, Civil and Environmental Engineering  
Aurora Sharrard, Sustainability  
**Student:** Ryan Krug, Civil and Environmental Engineering

Sustainable Forestry within the Eastern Deciduous Forest Biome: Is salvage logging compatible with healthy forest regeneration following a major windstorm?  
**Advisors:** Dr. Walter Carson, Biological Sciences  
Hannah Assour, Biological Sciences  
**Student:** Molly Draper, General Studies

Additive Manufacturing of Magnetocaloric Materials for High Efficiency Cooling  
**Advisor:** Markus Chmielus, Mechanical Engineering and Materials Science  
**Student:** Rebecca Hotton, Chemistry

Microswimmers in the Ocean  
**Advisor:** Lei Fang, Civil and Environmental Engineering  
**Student:** Brandon Chai, School of Computing and Information

Save It, Don’t Spray It: Do water saving showerheads impact the microbes we breathe in during showering?  
**Advisor:** Sarah Haig, Civil and Environmental Engineering  
**Student:** Evan Trump, Civil and Environmental Engineering

Structural Design with Bamboo  
**Advisor:** Kent Harries, Civil and Environmental Engineering  
**Student:** Matthew Brancaccio, Civil and Environmental Engineering

Statistical Models for U.S. Electricity Grid Renewable Production  
**Advisor:** Oliver Hinder, Industrial Engineering  
**Student:** Yuchen Zhong, Industrial Engineering

Alchemical Screening for Hetero-Bimetallic Catalysts  
**Advisor:** John Keith, Chemical and Petroleum Engineering  
**Student:** Margarita Prifti, Chemical and Petroleum Engineering

Distributed Energy Resource Control  
**Advisor:** Bob Kerestes, Electrical and Computer Engineering  
**Student:** Daniel Braunstein, Electrical and Computer Engineering

Using Machine Learning Models to Identify Wildlife Species in Field Recordings  
**Advisor:** Justin Kitzes, Biological Sciences  
**Student:** Junshang Jia, School of Computing and Information

Powering miniature embedded systems using a Supercapacitor  
**Advisor:** In Hee Lee, Electrical and Computer Engineering  
**Student:** Dhinar Gayatri, Electrical and Computer Engineering

CyberWater  
**Advisor:** Xu Liang, Civil and Environmental Engineering  
**Student:** Ryan Young, Physics and Astronomy
Low Voltage Electrospinning of Nanofibers
Advisor: Qihan Liu, Mechanical Engineering and Materials Science
Student: Hao Du, Mechanical Engineering and Materials Science

Teeny Tiny Testers for Big Bad Batteries
Advisor: James McKone, Chemical and Petroleum Engineering
Student: Noah Lawrence French, Engineering Physics

Testing Biobased Sorbents for Contaminant Removal
Advisor: Carla Ng, Civil and Environmental Engineering
Student: Sneha Kc, Civil and Environmental Engineering

Electromagnetic Field Processing of Soft Magnetic Alloys for Electric Vehicle Applications
Advisor: Paul Ohodnicki, Mechanical Engineering and Materials Science
Student: Alexander Pierce, Mechanical Engineering and Materials Science

Social Network and Media Contexts of Substance Use
Advisor: Amin Rahimian, Industrial Engineering
Student: Zitao Zeng, Industrial Engineering

Human-Machine Teaming
Advisor: Amin Rahimian, Industrial Engineering
Student: Rishika Dhanda, Psychology

Using Microbial Fuel Cells to Degrade Contaminants of Emerging Concern
Advisor: David Sanchez, Civil and Environmental Engineering
Student: Natan Herzog, Engineering Mechanics

Best Practices in Climate Change Leadership
Advisor: Julia Santucci, GSPIA – Johnson Institute for Responsible Leadership
Student: Allyson Frantz, Environmental Studies

Building Food Access, Community, and Sustainability
Advisor: Kay Shimizu, Political Science
Student: Ana Rowley, Geology and Environmental Science

Practical Optimization of Traffic Signals to Reduce Fuel Consumption and Vehicular Emissions
Advisor: Aleksandar Stevanovic, Civil and Environmental Engineering
Student: Nolan Pernia, Mechanical Engineering and Materials Science

Towards Circular Use of Polyurethanes
Advisor: Goetz Veser, Chemical and Petroleum Engineering
Student: Jessica Gondak, Chemistry

Carbon Dioxide Capture through Carbonic Anhydrase-Catalyzed Carbon Mineralization in Saline Water
Advisor: Meng Wang, Civil and Environmental Engineering
Student: Sarah McGoldrick, Civil and Environmental Engineering

Additive Manufacturing Design for High-Entropy Alloys for Energy Components with Enhanced Efficiency
Advisor: Wei Xiong, Mechanical Engineering and Materials Science
Student: Daozheng Li, Mechanical Engineering and Materials Science