**Announcements**

**2024 Mason ORIEI NSF CAREER Cohort Support Program**

The Office of Research Innovation and Economic Impact (ORIEI) is launching the 2024 Mason ORIEI NSF CAREER Cohort Support Program. NSF CAREER awards are among the most prestigious awards in support of early career faculty issued from the NSF. We are excited about launching this new program, intended to support our early career faculty applying for 2024 NSF CAREER Awards, through workshops, mentorship and a structured grant writing process. The NSF CAREER program page and solicitation can be found here.

The attached flyer provides information about the support program, which will kick off the week of February 12th with an Orientation. The program will also include:

1. Specialized workshops from NSF CAREER proposal development consultants
2. Identification of a faculty mentor for each participant
3. Panel discussion with Mason CAREER awardees
4. Review and feedback from external experts

This structured program will provide faculty with step-by-step support and expert feedback as they develop their proposals. Faculty planning to submit an NSF CAREER proposal in the 2024 Cycle are strongly encouraged to apply to participate in this program. Applications for the program are due February 5th. The link to the brief application form is in the attached flyer and can be found here: [2024 NSF CAREER SUPPORT PROGRAM](#).

**Click Here to Learn More**

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**2024 Energy and Climate-Tech Innovation Policy “Boot Camp” for Early Career Researchers**

George Mason University’s Schar School of Policy and Government and the University of Maryland’s Center for Global Sustainability are pleased to invite applicants to participate in their 2024 energy and climate-tech innovation policy “boot camp” for early career researchers. The Mason-Maryland boot camp’s main purpose is to strengthen researchers’ understanding of how energy and climate-tech policy is made, so their research has a greater impact on real-world clean energy and climate innovation outcomes. It is supported by the Alfred P. Sloan Foundation.
A central feature of the boot camp will be face-to-face discussions with key players shaping the energy and climate-tech policy landscape in the United States. These discussions will span Congress, the executive branch, international organizations, NGOs, businesses, and other players. The 2024 event will build on the success of prior boot camps in 2019 and 2022. The Bipartisan Policy Center’s Energy Program will partner with Mason and Maryland to assist in the creation of a high-quality program.

GIS Analyst for Northern Virginia Regional Trails, Sponsored by the Institute for a Sustainable Earth

Apply skills in GIS and cartography to enhance regional recreation and transportation trails. GIS data and maps are essential for planning a complete and high-quality regional trail network, enhancing community health activity, and promoting the region’s trail network to boost tourism and reduce road trips to make for a cleaner environment. Collaborate with team members from the Northern Virginia Regional Commission (NVRC) and the Institute for Sustainable Earth to assist with assessing existing jurisdiction bike/ped trails GIS data schemas and attribute values, along with researching national data standards. Provide recommendations on a regional data standardization solution that integrates the data and attributes existing across the region’s GIS layers, while at the same time seeking to adhere to national data standards for the region’s trails data. Migrate/maintain data and produce a technical report and GIS/map products that provides research findings.

Required Skills: Advanced undergraduate student pursuing a degree in Geography with a focus on GIS. Must be versed in basic research techniques, technical writing, GIS Desktop, ArcGIS Online, database design, and MS Office suite. Applicants must be approved for Federal Work Study. Accepting applications immediately, and the position is open until filled. Pay rate: $14.00/hour, for ~10 hours a week through the end of the Spring 2024 semester.

Questions? Contact Dr. Jeremy Campbell at the Institute for a Sustainable Earth: jcampb30@gmu.edu.

Summer Graduate Research Fellowships with Organizations on the Front Lines of Sustainability Challenges

Co-sponsored by Mason’s Graduate Division and the Institute for a Sustainable Earth, the 2024 Sustainability Summer Fellowships for Graduate Research Partnerships program provides financial support and professional development to graduate students who will work with partner organizations on applied research projects. This opportunity is designed to connect students with organizations making a positive impact on our world. Together, fellows and partner organizations will identify research and action priorities for the period of the fellowship, allowing students to gain valuable experience and organizational access. Participants in the Sustainability Summer Fellowship program will then be able to leverage this research partnership in their dissertation or master’s thesis work.
In the News

- A $6 million NSF grant will translate research into practice to help local communities become climate-resilient.
- NSF rankings show Mason ahead of research funding goals.
- New video camera system captures the colored world that animals see.
- New Mason Nanofabrication Facility will help drive innovation in the Commonwealth.
- Strengthening global partnerships: Professor Amira Roess collaborates with international researchers to strengthen pathogen discovery.

Events

How Microgrids Can Help Localities on Data Center and Critical Infrastructure Energy Challenges. Enchanted Rock (Houston, TX) is one of the largest microgrid developers in the nation. Natural gas-powered microgrids provide localities an economically viable, quieter, and more environmentally friendly alternative to diesel-powered backup power for data centers and critical infrastructure. Microgrids also can meet electric demand requirements when utilities are delayed in providing power. Join NVRC and Enchanted Rock on January 30, 2024, at 12:00 – 1:00 pm to learn how microgrids can help localities on energy challenges around data centers and critical infrastructure.

Tuesday, January 30, 2024 | 12:00 PM (ET) | Click here to register.

Tech Duels is excited to bring you our next Tech Duels debate, Securing Tomorrow: Artificial Intelligence vs Augmented Intelligence on Feb 7th from 6-9pm at George Mason University (3351 Fairfax Dr, Arlington, Va). This event is brought to you by Arlington Econominc Development Agency, Ace of Cloud and Rapid Talent.

This debate will focus on the future of AI and Augmented Intelligence and which of these technologies will dominate our future. Will it be intelligence with human intervention or without. Augmented intelligence offers suggestions to humans to take decisions unlike artificial intelligence, which works through data and takes anonymous decisions.

Wednesday, February 7, 2024 | 6:00 - 9:00 PM (ET) | Click here to register.
Funding Opportunities

Heather’s Highlights: Each week we will highlight current funding opportunities, alternating between the six ISE Research Themes.

Research Theme 4: Clean Energy, Decarbonization, and Climate Action

The National Science Foundation (NSF) has released a Dear Colleague Letter for Funding Opportunities for Engineering Research to Achieve Net-Zero Climate Goals by 2050.

With this Dear Colleague Letter, the U.S. National Science Foundation (NSF) Directorate for Engineering (ENG) encourages the submission of research and education proposals related to Net-Zero Climate Goals, including innovations to create a Circular Economy.

Application Due Date: April 30, 2024
Anticipated Funding Amount: Not Specified

Research Theme 5: Enhancing Equality, Equity, and Access to Basic Goods and Services
The National Science Foundation (NSF) and the Directorate for STEM Education has a program titled Racial Equity in STEM Education (EDU Racial Equity).

Proposals funded by this solicitation will: (1) substantively contribute to institutionalizing effective research-based practices, policies, and outcomes in STEM environments for those who experience inequities caused by systemic racism and the broader community; (2) advance scholarship and promote racial equity in STEM in ways that expand the array of epistemologies, perspectives, ideas, theoretical and methodological approaches that NSF funds; and (3) further diversity project leadership (PIs and co-PIs) and institutions funded by NSF.

Application Due Date: Annually – for 2024: October 8
Funding Amount: $500,000

Research Theme 6: Peace, Justice, and Strong Institutions to Support Thriving Economies

The National Science Foundation (NSF) and philanthropic partners announce $16 million in funding to prioritize ethical and social considerations in emerging technologies through the Responsible Design, Development, & Deployment of Technologies (ReDDDoT) program.

The key goal of the program is to support and strengthen collaborations across disciplines and sectors, for example, academia, industry, and non-profits. The program also aims to ensure that ethical, legal and societal considerations and community values are embedded across technology lifecycles to generate products that promote the public’s wellbeing and mitigate harm.

Application Due Date: April 8, 2024
Funding Amount: $300,000

Student Opportunities

EnergyTech University Prize

EnergyTech UP aims to cultivate the next generation of energy innovators while accelerating the transfer of energy technologies to market. This prize seeks to attract the talented students of today and help them develop into the engineers, policymakers, entrepreneurs, market analysts, and project developers of tomorrow. Multidisciplinary student teams develop and present a business plan that leverages National Laboratory-developed or other high-potential energy technologies, including university-developed technologies or other technologies of interest to student competitors.

This prize is sponsored by the Office of Technology Transitions (OTT) at the U.S. Department of Energy (DOE), as well as several other program offices. EnergyTech UP, in partnership with American-Made Challenges, is designed to be approachable, equitable, and scalable nationwide. Winners will be chosen based on the strength of their business proposals. Students interested in participating in this prize will be provided with a curated list of National Lab technologies that are ready for commercialization and that can be used for their business plan.

Click here to learn more.
NASA's Wildfire Climate Tech Challenge, part of the MSI Incubator initiative, seeks innovative solutions for wildfire prevention and climate technology. NASA invites students and employees of Minority Serving Institutions (MSIs) to address the escalating issues caused by wildfires exacerbated by climate change. Successful participants will have the opportunity to join a startup incubator program and compete for a prize of $100,000. Additionally, this initiative offers a platform for participants to present their ideas to venture capitalists and NASA experts, furthering the development of technology in the fields of wildfire prevention and climate change, while promoting inclusivity and diversity.

Click here to learn more.

Global Sustainability Scholars Fellows Program

The GSS Fellows program offers a 10-week paid immersive training and mentoring with a global sustainability organization. Fellows will gain professional work experience, receive professional mentorship and professional development training, and build an international professional network in sustainability science. We will accept 5 -10 fellows per year to join the GSS community, provide advanced professional development training, and build professional connections that foster opportunities for employment and/or graduate school opportunities.

Click here to learn more.

The Institute for a Sustainable Earth (ISE) aims to connect members of the Mason community with others across the Mason community—and with other communities, policy-makers, businesses and organizations—so that, together, we can more effectively address the world’s pressing sustainability and resilience challenges.

The ISE Newsletter provides up-to-date information on conferences, funding opportunities, and research pertaining to environmental science and sustainability. The biweekly newsletter aims to facilitate information sharing among researchers, practitioners, and relevant local, national, and international organization.

ise.gmu.edu