

Institute for a Sustainable Earth

ISE NEWSLETTER

April 20, 2020



Announcements



50th Anniversary of Earth Day

To celebrate the 50th Anniversary of Earth Day on April 22nd, 2020, the <u>Institute for a</u> <u>Sustainable Earth (ISE)</u> and the <u>Office of Sustainability (OoS)</u> partnered with the <u>Earth Day</u> <u>Network</u> for their first-ever, state-based campaign. In doing so, Mason joined a movement of more than 75,000 partners from 190 countries who are committed to driving transformative change for people and planet!

In addition, we developed a <u>Virtual Earth Month Calendar</u> showcasing the amazing sustainability-related programs, events, and initiatives taking place throughout Earth Month. We highly encourage you to engage with a number of superb virtual programs taking place this week, including <u>Earth Optimism 2020</u> by the Smithsonian, <u>EARTHRISE</u> by the Earth Day Network, <u>Happiness and Sustainability Around the World</u> by the Sustainable Development Solutions Network, and <u>We Don't Have Time Climate Conference</u> co-organized by We Don't Have Time, Earth Day Network, and Exponential Roadmap.

Wishing you wonderful Earth Week!



Faculty Lightning Talks for Mason International Collaborative

Mason faculty are invited to present during a lightning talk session hosted by the Mason International Collaborative's Research Committee. This is specifically designed for faculty who are involved with research, scholarship, and creative activities in international locations or on international topics. The session will be held via WebEx on Friday, May 8, 10 am - Noon. Please complete this <u>form</u> if you are able to virtually present a 3-5 minute talk.

Mason International Collaborative (MIC) is an 18-month initiative to review and to strategize on internationalization efforts. This is part of the American Council on Education

Internationalization Laboratory. The MIC Research Committee is co-chaired by Dr. Aurali Dade and Dr. Padmanabhan Seshaiyer. For more information, please contact <u>MIC</u>.



MIC FACULTY LIGHTNING TALKS



10 am - Noon

The GMU community is invited to attend a lightning talks session hosted by the Mason International Collaborative's Research Committee. Come listen to faculty who are involved with research, scholarship, and creative projects in international locations or on international topics.

WebEx Meeting: https://bit.ly/mictalks WebEx Meeting PW: may8mic

Interested in presenting?

GMU Faculty: Complete this form if you are interested in virtually presenting a 3-5 minute talk about your international research, scholarship, or creative project. **http://bit.ly/gmumiciweek**

The deadline for submission is Friday, May 1. For questions or assistance, contact mic@gmu.edu





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Upcoming Mason Events

Pandemic Response and Resilience Workshop

The Center for Resilient and Sustainable Communities will hold a Pandemic Response and Resilience Workshop. The objective of the workshop is to foster research collaborations that lead to meaningful funded research on COVID-19 response and resilience.

- Date: April 24, 2020
- Time: 10am noon
- Location: Virtual
- <u>Registration</u>

You will be asked for a brief self-description which will be distributed to participants prior to the workshop. Time for introductions will not available, so please use this self-description to tell the other participants who you are. After registering, you will receive a confirmation email with instructions for joining the session.



Hospital Resilience to Cyberattacks During a Pandemic

Times of crisis require special vigilance of our critical infrastructure, and right now nothing is more critical than our healthcare system. How do researchers model hospital resilience to cyberattacks, in particular during a pandemic? What can prior

cases of ransomware attacks teach us about counter-measures? And, ultimately, what actions can be taken to reduce any impacts of cyberattacks on the operation of a hospital and the quality of care?

Join us for an engaging discussion with <u>Kathryn Laskey</u>, an expert on reasoning about uncertain phenomena and cybersecurity at George Mason University.

- Date: April 30, 2020
- Time: 11:30am 11:50am
- Location: Virtual
- <u>Registration</u>



Congratulations!

Funding Announcements, Awards, and Accomplishments



Virginia SBDC CY20 - State Office

Primary Investigator (PI): Jody Keenan, Academic AdministrationFunding source: US Small Business Administration

Collaborative Research: GI Catalytic Track: Cyberinfrastructure for Intelligent High-Resolution Snow Cover Inference from Cubesat Imagery

PI: Ziheng Sun, College of ScienceFunding source: National Science Foundation

Enhancing and Standardizing Python Readers for HAPI Data

PI: Robert Weigel, College of ScienceFunding source: Johns Hopkins University and NASA

Research Team Commercial First Innovation TM a.k.a. Smart Community IoT Innovation (SCITI Labs)

PI: Brenda Bannan, College of Education and Human Development

Co-PI: Julie Zobel, College of Education and Human Development

Funding source: Center for Innovative Technology and Department of Homeland Security

Adaptation to Hatchery Conditions in Westslope Cutthroat Trout

PI: Ylenia Chiari, College of Science

Funding source: Montana Trout Unlimited and Flathead Valley Chapter of Trout Unlimited

Synlogic Analysis of 42 Fecal Samples

PI: Patrick Gillevet, College of ScienceFunding Source: Synlogic Operating Company, Inc.

VIVA Course Redesign Grant: Creating an Open Lab Manual for Quantitative Methods in Geography

PI: Nathan Burtch, College of Science

Funding source: State Council of Higher Education

Evidence-Based Strategies for Policing Innovations to Reduce Serious Vehicle Crashes on State and Rural Roadways

PI: Christopher Koper, College of Humanities and Social SciencesCo-PI: Cynthia Lum, College of Humanities and Social SciencesFunding source: US Department of Transportation

PSC Landscape CSI: Fellowship Cynthia Smith

PI: Cynthia Smith, College of SciencFunding source: Landscape Architecture Foundation

Teaching Cultural Anthropology for 21st Century Learners

PI: Cortney Rinker, College Humanities and Social Sciences

Funding source: State Council of Higher Education

Lockheed Martin Sponsorship Agreement - Eminent Research and new Institute for Cyber and Data Analytics

PI: Liza Durant, Volgenau School of Engineering

Funding source: Lockhead Martin Integrated Systems

Webinar Series: Online Teaching for English Teachers

PI: Joan Shin, College of Education and Human DevelopmentCo-PI: Jered Borup, College of Education and Human DevelopmentFunding source: Cengage Learning

COVID-19 Funding Opportunities

<u>The Research Development Services</u> office has organized a detailed database of funding opportunities pertaining to COVID-19. The database is updated as new opportunities become available. If you would like to add opportunities to the database please contact <u>Heather Arold</u>.

Additional Funding Opportunities

Optimizing Natural Systems for Remediation: Utilizing Innovative Materials Science Approaches to Enhance Bioremediation

<u>The National Institute of Environmental Health Sciences (NIEHS)</u> invites qualified investigators from domestic institutions of higher education to submit an application for Superfund Research Program. This funding opportunity focuses on research that will advance mechanistic understanding and effectiveness of bioremediation through incorporation of advanced, novel materials science approaches. Bioremediation refers to the use of biota (bacteria, algae, fungi, plants, etc.) to reduce or detoxify hazardous substances in the environment. Bioremediation is a cost-effective, low-energy-intensive remedy that has contributed to the cleanup and closure of sites impacted by hazardous substances.

- Funding source: National Science Foundation
- Amount: \$1,000,000
- Deadline: April 20, 2020

- Submission: grants.gov
- Contact: Heather Henry, 984-287-3268

Special Research Grants Program - Aquaculture Research

The purpose of the <u>Aquaculture Research program</u> is to support the development of an environmentally and economically sustainable aquaculture industry in the U.S. and generate new science-based information and innovation to address industry constraints. This program funds applied aquaculture research projects to address issues related to: 1) Genetics of commercial aquaculture species; 2) Critical disease issues impacting commercial aquaculture species; 3) Design of environmentally and economically sustainable commercial aquaculture production systems; or 4) Economic research for increasing commercial aquaculture profitability.

- Funding source: National Institute of Food and Agriculture
- Amount: \$1,200,000
- Deadline: April 22, 2020
- Submission: grants.gov
- Contact: Gene W. Kim, 202-531-0636

NextGen Grant

<u>The NextGen Grant</u> is requesting proposals that would measurably reduce existing or avoid future emissions of greenhouse gases in the atmosphere. Will primarily judge proposals on the potential to help reverse global warming. The Committee will give strong consideration to meaningful social and environmental benefits associated with the carbon reduction potential of the project.

- Funding source: Ray C. Anderson Foundation
- Amount: \$100,000
- Deadline: May 15, 2020
- Contact: Ray C. Anderson Foundation

National Environmental Education and Training Program

The purpose of the <u>National Environmental Education and Training Program</u> is to deliver environmental education (EE) training and long-term support to education professionals across the U.S. in the development and delivery of environmental education and training programs and studies.

- Funding source: Environmental Protection Agency
- Amount: Total funding is \$11,000,000
- **Deadline**: May 29, 2020
- Contact: Ginger Potter

Civic Innovation Challenge

<u>The Civic Innovation Challenge</u> is a research and action competition in the Smart and Connected Communities (S&CC) domain designed to build a more cohesive research-toinnovation pipeline and foster a collaborative spirit. CIVIC will fund projects that can produce significant community impact within 12 months (following a four-month planning phase) — in contrast to many community-university partnerships that take years to provide tangible benefits to communities — and have the potential for lasting impact beyond the period of the CIVIC award.

<u>In the first stage (Stage 1)</u>, up to 12 awards per track will be made for Planning Grants – each with a budget of up to \$50,000 for four months to undertake pre-development activities, including solidifying the team, maturing the project plans, and preparing to submit a well-developed full proposal for Stage 2. Only awardees of Stage 1 will be eligible to submit proposals for Stage 2.

<u>In the second stage (Stage 2)</u>, up to four teams per track will be selected from Stage 1 award recipients to receive a full award— each with a budget of up to \$1,000,000 for up to 12 months to execute and evaluate their research-centered pilot projects.

- Funding source: National Science Foundation
- Estimated Number of Awards: 24 to 32
- Estimated Funding Amount: \$9,000,000
- Deadline: Stage 1: July 1, 2020; Stage 2: March 31, 2021
- Contact: David Corman, Program Director

AI for Earth Innovation

<u>National Geographic Society and Microsoft's AI for Earth Program</u> partnered to support novel projects that create and deploy AI tools to improve the way they monitor, model, understand, and ultimately manage Earth's natural resources for a more sustainable future.

- Funding source: National Geographic Society and Microsoft's AI for Earth Program
- Amount: Applicants may request \$5,000 to \$100,000
- Deadline: July 22, 2020
- Contact: <u>AI for Earth Innovation</u>

FY 2020 Solicitation for the Office of Science Financial Assistance Program

<u>The Office of Science of the US Department of Energy</u> is providing funding for research in the following program areas: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, and Nuclear Physics.

- Funding source: Office of Science, Department of Energy
- Amount: Up to \$5,000,000
- Deadline: September 30, 2020
- Submission: grants.gov
- Contact: Kimberlie Laing, 301-903-3026

Enduring Impacts: Archaeology of Sustainability

<u>The Enduring Impacts: Archaeology of Sustainability</u> focuses on the gathering and analysis of archaeological, paleoenvironmental, and paleoclimatological data for the purposes of increasing understanding of human-environmental interactions over time, to ultimately contribute to mitigating contemporary environmental and climatic crises.

- Funding source: National Geographic Society
- **Amount**: \$80,000
- Deadline: October 2020
- Additional information

Dear Colleague Letter: Critical Aspects of Sustainability (CAS): Micro- and Nanoplastics (MNP)

<u>This Dear Colleague Letter (DCL</u>) encourages the submission of proposals that tackle some of the fundamental scientific questions underlying micro- and nanoplastic characterization, behavior, and reactivity in the environment (including animal and human health), as well as their elimination from land and water systems.

Sustainable solutions to the plastic waste problem require creative approaches from many scientific disciplines, to reduce the burden and harmful effects of micro- and nanoplastics and ensure our ability to track their fate in the environment.

Several Directorates/Offices/Divisions welcome the submission of proposals on this topic, though each division will only accept proposals of a certain type, as described in the corresponding sections. All questions regarding proposals should be addressed to the cognizant Program Officers to whom submission is contemplated.

- Funding source: National Science Foundation
- Deadlines: Multiple
- Contacts: Multiple

Global Innovation Fund

<u>The Globa Innovation Fund</u> seeks to invest in social innovations that aim to improve the lives and opportunities of millions of people in the developing world. Open to funding innovations in any sector as long as they can demonstrate their innovation improves the lives of those living on less than USD 5 PPP per day.

- Funding source: Global Innovation Fund
- Amount: \$50,000 \$15,000,000
- Deadline: Proposals accepted at anytime
- Additional information

Limited Submission Funding Opportunities for Mason Faculty

Limited submission funding opportunities are available to Mason researchers. These funding opportunities limit the number of submissions per institution and require an internal submission process that is restricted to Mason faculty. Visit Mason's <u>Research Development</u> website for additional information on the internal process and for a list of available grants.

If you plan to submit an internal application for one of the opportunities, please submit a Notice of Intent (NOI) to <u>Sheila Davis</u> at least one week prior to the internal due date, if possible. The NOI should include the following: Solicitation Name; PI, Co-PI, and collaborators' names; and title of proposal.

Other Upcoming Events



Earth Optimism Summit 2020

On the 50th anniversary of Earth Day 2020, join online for an <u>Earth Optimism digital event</u> that will showcase stories of both small and large-scale actions that frame the conversation and demonstrate that success is possible in conservation, climate, and sustainability.

- Date: April 22-25, 2020
- Location: Virtual



EARTHRISE presented by the Earth Day Network

On Aprill 22, over the 24 hours of Earth Day, <u>EARTHRISE</u> will fill the digital landscape with global conversations, calls to action, performances, video teach-ins and more.

While Earth Day is going digital, the goal remains the same: to mobilize the world to take the most meaningful actions to make a difference. No matter where you are, you can make a difference.

- Date: April 22-23
- Time: 24hrs starting at 12am (EST) on 4/22 and ending at 12am (EST) on 4/23
- Location: Virtual

<u>Registration</u>



Happiness & Sustainability Around the Earth

<u>The Sustainable Development Solutions Network (SDSN)</u> invites you to join the SDSN networks around the world, around the clock for a 24-hour webinar event, **Happiness & Sustainability Around the Earth**, on the 50th anniversary of Earth Day anniversary, During this 24-hour webinar, we will circumnavigate the globe to navigate happiness, well-being, and sustainability amongst COVID-19.

- Date: April 22, 2020
- Time: 24 hour webinar
- Location: Virtual
- <u>Registration</u>



24 Hour Webinar, April 22, Earth Day 2020

Join experts from SDSN's global network as they share how they are building a happier world.



We Don't Have Time Climate Conference

Together with Earth Day Network and Exponential Roadmap, We Don't Have Time presents the <u>Earth Day Week Conference</u>, April 20–25, 2020. Live talks and other daily shows will be broadcast from Washington DC, Stockholm and with speakers, thinkers and doers from all over the world.

For the third consecutive year We Don't Have Time has organized a public, free, online, no-fly climate conference. The program features the brightest minds to discuss solutions to the most daring challenge humanity has ever faced: the climate crisis.

We need climate action and an open dialogue. We need you and everyone to join in.

- Date: April 20-25, 2020
- Time: 9am 12pm EST
- Location: Virtual
- <u>Registration</u>



Faith Alliance for Climate Solutions': Tree of Life Program

This webinar will provide you with an opportunity to learn more about FACS' <u>Tree of Life</u> <u>Program</u> as well as opportunities for future engagement/action. You'll learn how the program works, resources to support you/your team, and more information about how you can get involved!

- Date: April 23, 2020
- Time: 12pm
- Location: Virtual
- Link to event



COVID-19 and the United Nation's Sustainable Development Goal

In the age of sustainable development and at a time when the world is working towards achieving the SDGs, COVID-19 is complicating SDG implementation efforts as well as posing a real risk to achieving targets on communicable disease, education, life expectancy, and decent work.

This second virtual conference will examine the implications of COVID-19 for public health and the SDGs, as well as make recommendations on science-based responses. Over the course of 3 hours we will discuss successful public health interventions, how to ensure responses promote health equity and reduce inequality, and look at different scenarios for ending isolation and returning to normal.

- Date: Monday, April 27, 2020
- Time: 8am 12pm EST
- Location: Virtual
- Link to event





The 8th World Sustainability Forum

<u>The 8th World Sustainability Forum (WSF2020)</u> is an international scientific conference coordinated by MDPI under the patronage of the University of Basel, the University of Geneva and the UN Sustainable Development Solutions Network (UN SDSN). The event will not only celebrate the 5th anniversary of the 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals, but we also wish to create synergies between researchers and all stakeholders relevant to sustainability to maximize positive impact on regional, national, and international sustainability agendas.

If you are interested in submitting any of your current research, abstract submissions are now open. There are several different options – Paper presentation, Poster presentation, Session and Stream. The deadline for submitting an abstract for each option is 31 March 2020.

• Date: September 15-17, 2020

- Location: International Conference Centre, Geneva, Switzerland
- Registration

<u>The Institute for a Sustainable Earth (ISE)</u> 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

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