

Student FEWSUS symposium
Undergraduate and Graduate levels
April 27, 2021 8:30-10:30 EDT

To register:

<https://fewsus.utk.edu/registration-student-international-symposium/>

Developing sustainable urban systems through food-water–energy nexus research



Background

Urban systems, including cities and surrounding regions, occupy less than 4% land surface area on the earth but support 66% of population and contribute more than 80% of gross domestic product and more than 70% of greenhouse gas emissions in the world.

The water-food-energy nexus provides a conceptual tool for addressing urban sustainable development. Demand for all three is increasing, driven by a rising global population, rapid urbanization, changing diets and economic growth. Currently, estimates project that by 2050, water and food demands will grow by over 50%, while urban energy demands may double.

Our changing global scenario urgently requires creating a transdisciplinary student network to develop a global research agenda and community of practice that addresses the impacts of regional and global FEW systems on urban sustainability. As the world urbanizes, we need to be prepared to address the changes to our critical food, water, and energy systems.

About the FEWSUS program

The United States National Science Foundation funded FEWSUS program is an opportunity to bring academic faculty members and university students together to share interdisciplinary research on the intersection of the food-energy-water nexus in sustainable urban systems.

Symposium information

Meeting Format: Virtual

Date: April 27th, 2021 8:30-10:30am EDT

This event will showcase undergraduate and graduate student research across the world towards addressing sustainable urban systems through cutting-edge research in the food-energy-water nexus. This symposium will cover multiple United Nations' Sustainable Development Goals, including SDGs 2, 6, 7, 11, and 12.



Submit your abstracts to present at the FEWSUS symposium!

Deadline: **Submissions due by 11:59pm EDT, March 26, 2021**

Students interested in participating must complete and submit their application online at <https://fewsus.utk.edu/registration-student-international-symposium/>. Submissions should include a title, 100-150 word abstract and 1-page resume/CV of the presenter. Abstracts should address FEWSUS topics and link clearly to at least one of SDGs 2, 6, 7, 11 and/or 12. Abstracts should describe original research and communicate the research topic and its significance in language appropriate for a non-specialist audience. Student submissions from all disciplines that touch on developing sustainable urban systems through food-water–energy nexus research topics are encouraged.

Selections will be made by the NSF-FEWSUS committee and accepted presenters will be notified by April 1, 2021. Students who have submissions accepted for presentation during the April 27 symposium will receive instructions on how to submit their pre-recorded slides for the virtual presentation.

Submission topic examples



FEWSUS & SDG 2: Zero hunger

- Urban food insecurity, including availability, access and/or use of food
- Sustainable urban food production
- Inequality in urban food systems.
- Urban conservation of biodiverse food systems
- Reducing urban food system energy and water demands



FEWSUS & SDG 6: Clean water and sanitation

- Safe drinking water for urban systems
- Freshwater withdrawals and water use efficiency for agriculture, industry and municipal uses
- Wastewater treatment and reuse
- Urban water governance and policy
- Integrated water management
- Restoration of water-related urban ecosystems



FEWSUS & SDG 7: Affordable and clean energy

- Clean energy for urban food and water systems
- Efficient energy for urban food and water systems
- Clean fuels for urban cooking



FEWSUS & SDG 11: Sustainable Cities and Communities

- Urban planning for food-energy-water systems
- Natural disaster risk management and response
- Solid waste management
- Sustainable and resilient construction
- Managed urban ecosystems
- Urban pollution
- Affordable and sustainable transport systems
- Urban waste for energy and food production



FEWSUS & SDG 12: Responsible Consumption and Production

- Sustainable use of natural resources for urban development
- Urban food waste and loss

- Responsible management of chemicals and waste
- Urban recycling and reuse
- Sustainable urban tourism
- Decarbonization in the supply chain
- Interdependence of food, energy, and water resources along supply chains
- Commercialization and access to quality foods

Awards

Student winners will be invited to participate at our Annual International FEWSUS conference in late 2021 where they will be invited to present and interact with researchers from the FEWSUS platform. The award will provide coverage for airfare, hotel and food stipend for the conference.

Contact

Sara Mulville (smuvill@utk.edu) and Kathryn Kavanagh (kkavana3@vols.utk.edu), University of Tennessee, Knoxville, USA

Join the student FEWSUS Network! Register here <https://fewsus.utk.edu/join-the-fewsus-student-network/> for upcoming events and opportunities for engagement.