4th International Conference for Sustainable Resource Society - ICS24

31 Oct 2024 - 01 Nov 2024 University of Eastern Finland, Joensuu Campus Metria, Yliopistokatu 7, 80100 Joensuu FINLAND 31 Aug 2024

CALL FOR ABSTRACTS

The abstract submission deadline has been extended to September 15, 2024

ICS24 is a multi-disciplinary conference focused on challenges of sustainability transitions in society, environmental change, and sustainable use of natural resources. ICS24 is organized around five working groups: bio society, climate, water, energy & minerals, and circular economy and sustainable society. ICS24 is jointly organized by a consortium of University of Eastern Finland Research Communities: RESOURCE, FOBI, WATER, CLEHE, and PHOTONICS.

The conference will be held on-site at the Joensuu campus of the University of Eastern Finland accompanied with a limited online participation. The online event details will be shared at a later date.

ICS24 offers a platform for researchers from all fields of science to share research insights and discuss the complex global and local challenges on sustainability transitions, use of natural resources, environmental and climate change, and circular economy themes from a broad perspective. We especially welcome submissions that explore and discuss the ICS24 special theme:

Environmental Monitoring and Impact Assessment

Relationships between human beings and natural ecosystems are under radical changes in many respects. Ecological crisis is globally alarming, and at the same time, urbanization, digitalization and artificial intelligence are increasing the distance between human beings and nature. For example, digital platforms applied in natural resources management,

applications of virtual reality and digital twins are typical technological channels connecting human beings and nature.

Technology evidently offers great possibilities. However, we need to profoundly understand how natural ecosystems function, how human-nature relationships change in different contexts, and how to keep natural ecosystems and human-nature relationships alive through our knowledge- and community-based expert systems. Environmental monitoring, impact assessment and management systems should offer adequate support to decision making when developing just policies, sustainable nature-based solutions in business and environmental governance as a whole - so that sustainability challenges can be genuinely tackled on global, regional and local scales.

You are all warmly invited to give presentations and discuss your ongoing research and projects with key scholars from different research disciplines. ***Please see the more specific topic descriptions below and submit an abstract (200-300 words) by August 31, 2024.*** Decisions are posted by the end of September.

There are no conference fees for conference participation or for the evening event.

For more further information, please contact Helen Reijonen or Jarno Suni at ics@uef.fi

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ABSTRACT / POSTER / SESSION TOPICS

Parallel sessions are held on Thursday (Oct 31) afternoon and Friday (Nov 1) morning. Posters are on display during the whole conference. A separate poster session is organised during the Campus Tour late Thursday afternoon.

CLEHE brings together scientists from the multidisciplinary fields of aerosol physics, environmental science and climate law and policy aiming to increase understanding of various direct and indirect climate change and mitigation measures and their health effects. The CLEHE session welcomes papers in different fields of research including studies on natural and anthropogenic emissions, natural feedback mechanisms, mitigation technologies, actions and policies as well as human health.

The special topics for the CLEHE sessions are:
• Causes and consequences of alterations in atmospheric balance due to climatic change
• Potentials for carbon sequestration in ecosystems
• Soils in changing climate - The impact of the changing climate on northern soils, especially on carbon and nitrogen cycles and greenhouse gas emissions

• Anthropogenic aerosols, air pollution and their mitigation technologies
• Carbon capture, storage and utilization – CCU.

FOREST AND PHOTONICS: *Designing Forested Environments in 2040* session brings together leading companies, researchers and experts in the field to jointly identify technology solutions to the future challenges of using forest resources:

What kind of smart forestry planning measures and value chains reconcile the procurement of wood biomass, the goals of carbon sequestration and the preservation of biodiversity while taking economic, social and ecological sustainability into account?
What kind of data sources and monitoring approaches are needed to evaluate the impacts of the adopted measures?
How can we prepare for risks elevated by climate change in order to safeguard the vitality and production of forests?
How could the forest bioeconomy side streams and circular economy opportunities be better utilized?
How do photonics, the science and technology of light, contribute to forestry today and tomorrow?
What role could artificial intelligence and other emerging technologies potentially play as enabling technologies?

The session is hosted by the University of Eastern Finland and Business Joensuu in collaboration with the other members and partners of Forest Joensuu and Photonics Joensuu innovation ecosystems. Check further information about timetable and keynote speakers here.

NB! *Please note that in this session only posters are accepted.*

UEF Water provides interdisciplinary solutions for sustainable, responsible, and integrated utilization of the aquatic resources by combining expertise from various scientific disciplines.

WATER session themes (you can find more detailed session descriptions here: https://blogs.uef.fi/uefwater/2024/06/04/ics24/):

A) Data and policy value chains interface in water management
Chair: Antti Belinskij
This session will ask why environmental monitoring and impact assessment are not being translated into effective water and marine policies, and what should be done to improve the science-policy interface in this regard.

B) Beyond the pretty picture: Remote sensing for biodiversity and ecosystem condition monitoring

Chairs: Miguel Villoslada & Franziska Wolff

In this session, we want to elaborate on whether and how remote sensing tools and techniques can help monitor ecosystem condition and halt biodiversity loss, and what may be the limiting factors in the uptake of these approaches. We welcome practical case-studies on the use of remote sensing for ecosystem condition monitoring. We are also interested in examples presenting the innovative use of satellite, airborne and drone-based tools for biodiversity conservation.

C) Monitoring and Managing Ecosystem Services and the Impacts of Outdoor Recreation, Nature-Based Tourism, and Adventure Pursuits

Chairs: Kelsey Johansen, Henna Konu, & Jarno Suni

This session interrogates the relationship between accessing and using natural environments in pursuit of enhancements to human wellbeing and quality of life, and monitoring and managing visitor impacts generated through individual and commercial outdoor recreation, nature-based tourism, and adventure pursuits.

D) Irrigation Water Efficiency or Increased Extraction Of Groundwater – Which Strategy hould We Be Promoting Towards Adapting To Climate-Induced Increased Drought

Chairs: Ahsan Uddin Ahmed & Shahidul Mallick

Increased surface temperature and greater variability in rainfall have been posing an intensification of agricultural drought under climate-induced higher levels of evaporative losses, especially in drought susceptible regions. Many suggest that investing in irrigation by tapping groundwater resources is the solution, which is being pursued by mobilizing global adaptation financing. This session will take advantage of case studies gathered from across diverse regions to bring in a healthy scientific debate, based on scientific evidence and on-the-ground updated research.

NB! Besides these sessions, other water-related research abstracts can be considered for oral and poster presentations.

RESOURCE sessions gather researchers' insights from multidisciplinary perspectives of sustainability transitions. To achieve the long-term goals for a sustainable future and carbon neutrality, the core systems of our societies as well as our governance approaches and business practices will change rapidly and dramatically. In this context, sustainability transitions are processes through which we transform from resource-intensive to resource-wise carbon-neutral society. Circular economy, energy and raw materials represent examples of the different paths where these transformations take place.

RESOURCE sessions invite researchers and professionals in different fields of research to submit abstracts on topics that are relevant to the overarching themes mentioned above. Young scholars and professionals as well as doctoral students are encouraged to submit an abstract. The conference aims to join views from disciplines such as economics, business studies, law, environmental policy, geography, history, sociology, and cultural studies. The topics to be discussed are as follows: circular economy, sustainable business, responsible community relations and social sustainability, sustainable raw materials and resources, energy law and governance, and energy transition, environmental law, governance, and politics, climate law, governance, and politics.