
International Ecological Engineering Society
CC23
Closed Cycles and the Circular Society 2023
The Power of Ecological Engineering
1993 2023
CELEBRATING 30 YEARS
ABSTRACT SUBMISSION IS NOW OPEN
www.iees.tuc.gr
ΠΟΛΥΤΕΧΝΕΙΟ ΚΡΗΤΗΣ
TECHNICAL UNIVERSITY OF CRETE
LABORATORY OF ENVIRONMENTAL
ENGINEERING AND MANAGEMENT

Closed Cycles and the Circular Society 2023
The Power of Ecological Engineering

1-5 October 2023, Chania, Greece

Call for Abstracts

About the International Ecological Engineering Society

The IEES was founded in 1993, with the idea of bringing together experts and conducting Ecological Engineering activities within an international society. IEES is a non-profit organization with more than 400 members globally seeking to promote and advance a broad view of Ecological Engineering through these four core activities:

- **Connect**: Facilitate and improve the cooperation between ecologists, engineers and other scientific fields
- **Exchange**: Promote the exchange between scientific and educational organizations, enterprises, and (non-)governmental organizations
- **Educate**: Support the development of a common Ecological Engineering curriculum
- **Promote**: Raise the awareness of Ecological Engineering practice worldwide

Call for Abstracts

Submit your abstract

International experts, professionals, researchers and academics from a broad and diverse range of fields are invited to submit their abstracts to present their contributions during the IEES 2023. The conference will be held between October 1st – 5th, 2023 in Chania on the island of Crete, Greece with physical presence and is organised by the Laboratory of Environmental Engineering and Management of the Technical University of Crete. There will be oral and flash oral presentations and poster sessions.
This is a special conference for us, as it marks the 30th anniversary of the foundation of the IEES in 1993! In this frame, our aim is to deliver and spread the message of redefining the ecological engineering discipline and communicate the IEES's vision of an ecology-inspired circular engineering, as declared in our Manifesto of Ecological Engineering.

Type of Contributions

- **Oral presentation**: submit an extended abstract of up to 4 pages (including references). Oral presentations will be 12 mins + 3 mins for questions.
- **Flash oral presentation**: submit an extended abstract of up to 4 pages (including references). Flash oral presentations will be 5 mins (no questions follow).
- **Poster presentation**: submit an abstract of up to 2 pages (including references). Poster files should be sent via email (submissions_iees@tuc.gr).

Key dates

- Call for Abstracts is open: **23 January 2023**
- Registration portal is open: **25 January 2023**
- Early Bird registration: **until 1 May 2023**
- Registration deadline: **30 June 2023**
- Conference dates: **1-5 October 2023**

- Each registration allows a maximum of two contributions: one oral presentation & one flash oral presentation or one poster presentation
- The submitted abstract must be novel, well-described, and fitting the Conference topics
- Submissions must contain original data and meet international ethical standards
- Word format (NOT PDF) must be used

Conference Topics

Use of ecological elements and ecosystems to reduce pollution

- Phytoremediation
- Natural treatment systems
- Constructed wetlands
- Sustainable water and wastewater treatment
- Ecological sanitation
- Stormwater and groundwater management
- Sustainable groundwater remediation
- Soil bioremediation

Use of ecosystems in a circular society

- Nature-based solutions: e.g., green roofs, green walls, rain gardens, green facades, vertical gardens, bioretention systems, microalgae culture, rainwater harvesting, urban forests, swales, soakways, green/blue corridors, drain ways, participatory watershed management, coastal mangrove restoration, etc.)
- Water-energy-food nexus in circular economy
- Urban agriculture and horticulture
- Ecosystem restoration
- Urban heat island mitigation strategies
- Urban ecology
- Improving mental health and well-being in urban areas
- Green and smart buildings
- Sustainable drainage systems
- Infiltration in urban areas

Circular design and integrated planning approaches for increased resiliency

- Biomimicry and biophilic design
- Role of architects, planners, and engineers in circular design
- Circular and smart cities for urban sustainability
- Eco-villages
- Design for ecosystem services
- Urban metabolism
- Regenerative urbanism
- Circular built environment
- Urban and regional environmental planning
- Urban strategies in ecological landscape architecture
- Green-blue infrastructure
- Ecosystem modelling

Resource recovery and reuse

- Water reuse, recycling, and reclamation
- Nutrient and material recovery
- Protection and reclamation of soils
- Composting systems and smart fertilizers
- Bio-based products, materials, biofuels
- Biochar/hydrochar-based materials
- Sustainable transformation of renewable bioresources
- Ecological solutions for industrial symbiosis

Climate change, green and just transition, and carbon neutrality: the role of ecological engineers

- From the Green Deal to the Real Deal
- Energy-saving technologies
- Eco-engineering for energy efficiency
- Bioenergy, biomass to fuel
- Microbial fuel cells
- Bio-sequestration, soil-carbon sequestration
- Industrial ecology
- Life-cycle assessment
- Environmental impact assessment
- Social life cycle and impact assessment
- Stakeholders' engagement and citizen participation
- Capacity building and living labs
- Environmentally focused social innovation

Regenerative agriculture

- Circular bioeconomy
- Integrated pest and disease management
- Natural soil cultivation (worms, dung beetles)
- Sustainable forest management
- Recirculating algae production system
- Livestock management
- Biorefineries
- Aquaculture and aquaponics
- Agricultural and food engineering

Ecological Engineering and the mining industry

- Mine land restoration
- Sustainable management of mine drainage
- Plant-soil-water interaction
- Plant growth and nutrition
- Erosion processes, soil stabilization and management
- Geomorphology of reclaimed land

Ecological Engineering Education

- Ecological engineering curriculum
- Interdisciplinary education
- Systems thinking and analysis
- Circularity in education
- Nature-based learning
- Knowledge integration
- International exchange of credits
- Accreditation

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Learn more

Website: www.iees.tuc.gr

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