## LAKE 2024: Wetlands for Human Well-being

[THE 14<sup>TH</sup> BIENNIAL LAKE SYMPOSIUM], Date: 17-20<sup>th</sup> October 2024

Symposium Web: <a href="http://wgbis.ces.iisc.ac.in">http://wgbis.ces.iisc.ac.in</a>

Lake 2024 will be the 14<sup>th</sup> Biennial Lake Conference would focus on "Wetlands for Human Wellbeing". Wetlands constitute vital components of the regional hydrological cycle. They are highly productive, support exceptionally large biological diversity, and provide a wide range of ecosystem services such as food, fibre, waste assimilation, water purification, flood mitigation, erosion control, groundwater recharge, microclimate regulation, enhance the aesthetics of the landscape, and support many significant recreational, social and cultural activities, aside from being a part of our cultural heritage. Wetlands play an important role in mitigating climate change adaptation through capturing and storing carbon to reduce atmospheric greenhouse gases (GHG), and providing resilience to hazards such as flooding, storm surge and coastal inundation. The theme of World Wetlands Day 2024 is "Wetlands for Human Well-being", which underscores the critical role wetlands play in enhancing human livelihood. This would demonstrate the vital role of wetlands for the future of humanity and specifically their relevance towards achieving the Sustainable Development Goals.

**Lake 2024 Symposium** focusing on Wetlands for human well-being (during 17-20<sup>th</sup> October 2024) provides a unique opportunity to increase understanding of the role of ecosystems in sustaining the food and water with the challenges faced by these fragile ecosystems. The forum would demonstrate the vital role of ecosystems for the future of humanity and specifically their relevance towards achieving the new Sustainable Development Goals.

Lake 2024 conference: Lake 2024 forum would deliberate on nature-based solutions through protection, restoration, and sustainably managing ecosystems in ways that increase their resiliency and ability to address those societal challenges, while also safeguarding biodiversity and improving human wellbeing. Lake 2024 participants include all stakeholders (Researchers: 30%, School students and teachers: 20%, college and university students: 20%, NGO's, community representatives: 20%, government officials (local, state and centre): 10%).

Lake 2024 would focus not only on updating the current knowledge of the scientific community but also would bring in awareness among students, teachers, practitioners and the public. This would provide a platform for interaction among researchers, policymakers, academics, and NGOs, and it would address the issues related to wetlands and biodiversity in an era of climate change. This would help develop a stronger network among experts and institutions to develop efficient strategies for conserving and managing fragile ecosystems. As a part of the conference, it has been decided to have theme-based lead lectures by eminent scholars, paper and poster presentations by researchers, school and college students.

## **THEMES for Paper Presentation/ Poster in Lake 2024**

Papers are invited on the following themes from researchers, faculty from universities, Research Scholars, planners, development managers, economists and social scientists, school (VIII-XII<sup>th</sup> students) and college (UG and PG) students and teachers.

- 1. Ecosystems (wetlands, forests, grasslands, estuaries, etc.)- Structure and functions.
- 2. Application of Geoinformatics in Ecosystems Management Land use, Land cover dynamics, fragmentation of ecosystems
- 3. Monitoring of ecosystems Big Data (Remote Sensing Data), Artificial Intelligence (AI), Machine Learning (ML) and Deep Learning techniques
- 4. Nature based solutions to address changes in the climate
- 5. Ecosystem (terrestrial, aquatic coastal, fresh water) Goods and services.
- 6. Biodiversity, Hydrology and Ecology of Western Ghats.
- $7. \quad Climate\ change-adaptation\ and\ mitigation\ strategies$
- 8. Aquatic Ecosystems Food and water security, people's livelihood.
- 9. Wetlands and swamps: Restoration, Conservation and Management.
- 10. Carrying capacity of river basins in Western Ghats.

- 11. Natural capital accounting and Valuation of Ecosystem services.
- 12. Sacred Groves (kans, devarakadu, kaavu) and Myristica Swamps.
- 13. Eco-Tourism in Western Ghats and Carbon sequestration.
- 14. Natural and Anthropogenic disasters.
- 15. Limnology, aquatic ecology, biodiversity and prospects of bio-monitoring.
- 16. Pollution –terrestrial and aquatic Monitoring and Management, waste (solid / liquid) management, bioremediation.
- 17. Constructed wetlands, bioremediation, phytoremediation
- 18. Sustainable Agriculture and Organic farming.
- 19. Coastal ecosystems Biodiversity, Ecology, Productivity and Livelihood aspects.
- 20. Prospects of Renewable Energy (solar, biofuel, bioenergy) and Energy Conservation.
- 21. Environmental Education and Sustainable Development.
- 22. Environment Ethics and Green Technology; and Environment Literacy.

**Call for Scientific Papers:** Delegates interested in presenting papers as oral or poster need to submit the scientific paper as per the guidelines given below.

Details are at <a href="https://wgbis.ces.iisc.ac.in/energy/lake2024/">https://wgbis.ces.iisc.ac.in/energy/lake2024/</a>

Registration [Submission of Registration form]	15-September-2024
Participants presenting papers/posters - Submission of scientific papers (full length / extended abstract), posters with the Registration Form (with the registration fee, depending on the category)	15- September-2024
<b>Review</b> of Papers and posters by the committee	20 <sup>th</sup> September 2024
Final submission of the revised manuscript (based on review)	22 <sup>nd</sup> September 2024
Notification of Acceptance of Papers (on web)	30 <sup>th</sup> September 2024
Lake 2024 Conference	17-20 <sup>th</sup> October 2024