

CALL FOR APPLICATIONS FOR INTERNATIONAL SUMMER SCHOOL

Innovative Approaches for Sustainable Integrated Catchment and Water Resources Management (ICWRM)

14 – 28 October 2024

National University of Lesotho Water Institute, Lesotho

BACKGROUND

- It is vital to enhance knowledge capacity in integrated catchment and water resources management (ICWRM) for the benefit of a nation aligned with the Sustainable Development Goals (SDGs).
- Holistic integration of social, economic, political, scientific, technological, and environmental aspects are necessary for sustainable future water resources planning.
- The National University of Lesotho (NUL), in partnership with WaterNet and EO AFRICA R&D Facility, will host an International Summer School from October 14-28, 2024.
- Activities include lectures, practical sessions, fieldwork/excursions, a science competition, poster sessions, pitching of innovative ideas, a three-minute research competition, engagement in art and performance, and an award ceremony.
- The program focuses on various themes that combines diverse perspectives and knowledge systems for innovative integration and holistic solutions.
- The programme will also introduce innovative cloud-based image analysis techniques for assessing surface water dynamics with Earth Observation data.

WHAT TO EXPECT

Upon completion, participants can expect the following outcomes:

- i. A comprehensive understanding of ICWRM, including governance frameworks that promote sustainable water resource management practices.
- ii. Recognise the impacts of climate change on water resources and have the knowledge on strategies to develop resilient infrastructure for sustainable water management.
- iii. Recognise the interdependencies and interactions between water, energy, and food systems, and implement integrated approaches for sustainability.
- iv. Utilise cutting-edge technologies and innovative solutions that can enhance monitoring, modeling, and decision-making processes in ICWRM and WASH sector services.
- v. Design scientific research in the field of ICWRM.
- vi. Apply basic principles and use of Earth Observation data with focus on surface water monitoring and management.
- vii. Knowledge of the Copernicus Programme and describe the main characteristics of satellites useful for water monitoring and their products.
- viii. Utilise optical and SAR satellite imagery for applications related to water and hazards.
- ix. Use Virtual Research Environment (VRE) called Innovation Lab - developed by EO AFRICA R&D Facility and facilitating cloud computing
- x. Utilise open-source software in VREs for image processing.
- xi. Develop a project within Innovation Lab

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PROGRAMME OUTLINE:

- a. ICWRM and governance frameworks for sustainable management.
- b. Best practices and technologies for WASH sector services.
- c. Climate change adaptation and resilient infrastructure.
- d. Water-energy-food nexus, insights into integrated approaches.
- e. Innovative approaches and technologies for enhanced ICWRM.
- f. Practical applications of Earth Observation tools and datasets for Catchment and Water Resource Management.
- g. Research design for scientific publication

ELIGIBILITY:

- The programme is open to postgraduate students (Masters and PhD), post-doctoral scholars, emerging researchers, professionals and individuals in the field of water resource engineering, integrated water resources management, catchment management, integrated sanitation management, civil engineering, environmental science, geomatics/geoinformatics, agriculture, forestry, urban and regional planning and related fields.
- Participants are requested to bring their own laptops

PROGRAMME COST:

- Limited full and partial sponsorships are available from WaterNet for financially needy SADC candidates who meet the criteria.
- Self-sponsored prescribed fee is 800 USD for international participants, 15,200 Maloti for local participants. The fee includes registration, training, accommodation, lunches, and tea.
- Self-sponsored participants are responsible for flights and airport transfers.
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HOW TO APPLY:

- Please click [HERE](#) to apply online.
- Southern and Eastern Africa region residents are recommended to apply.
- Applicants who are not currently students must submit a (1 page) research proposal.
- Personal information is required for the University's selection process. Appropriate security measures are implemented in the selection process.
- The **DEADLINE** for application is 30 August 2024. Late and incomplete applications will not be considered.
- All inquiries should be emailed to: waterinstitute.nul@gmail.com copy to nulwi@nul.ls

PAYMENT DETAILS:

National University of Lesotho Banking Account

Bank Name: Standard Lesotho Bank

Branch: City Branch

Branch Code: 060667

Account Name: National University of Lesotho

Account Number: 9080002587781

Swift Code: sbiclsmx

Account Type: Current Account

Currency: Maloti

Bank Postal Address: Kingsway, P.O.Box 115, [Maseru](#), Lesotho

Reference to be used: SummerSchool, Initials, Surname (e.g. Summerschool, H. Tedla).



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NATIONAL UNIVERSITY
OF LESOTHO

