

EARTH OBSERVATION FOR HYDROLOGICAL ANALYSIS ONLINE COURSE

About the Course

The overall aim of this course is to introduce the use of Earth Observation for Hydrological Analysis and IWRM. Upon completion of this course, participants will have a basic understanding of the use of EO in Hydrological analysis; the application of QGIS and its use in interrogating remote sensing datasets; they will be able to access and use GLDAS datasets and the Google Earth Engine for selected Hydrological Datasets.

Course Duration: and Mode

It is a one-week course with 15 hours of live sessions and practical demonstrations. Participants will have independent working sessions with minimal supervision. The course will run from **26th to 30th September 2022**

Course Content

- Introduce the use of EO for Hydrological analysis and IWRM
- Introduction to the GEE geospatial cloud computing platform
- Water budget estimation for river basin management: theoretical overview of water budget estimations and demonstrations of Quantum GIS (QGIS) and its processes
- Data Access from remote sensing observations and a GLDAS
- Skills and tools for use of EO for Hydrological analysis of a case study

Prerequisites

Basic GIS skills, knowledge in hydrological processes and familiarity with Google Earth Engine is assumed.

Targeted Participants

All professionals in the water and related sectors including agriculture and energy in research, academic, implementation and enforcement institutions within and outside Africa are the primary target participants. Young professionals are encouraged to participate. We target to attract **50 participants** with a good mix.

Course Instructors



Dr. Augustina Clara Alexander
Lecturer and Head of Department of Water Resources Engineering at the University of Dar es Salaam.



Dr. Subira Eva Munishi
Hydrologist and lecturer at the University of Dar es Salaam – Water Resources Engineering Department.



Ms Kershani Chetty Lecturer of Hydrology and Co-ordinator for the Hydrology Programme, Centre for Water Resources Research - University of KwaZulu Natal (UKZN).



Dr. Shaeden Gokool
Post Doc Researcher, at the Centre for Water Resources Research - University of KwaZulu Natal (UKZN).

Costs related to participation

The fee for participating in the course is **USD150.00** per participant.

How to apply

Fill in form on this [link](#) as part of the application process. An invoice will be sent to you. Applications close on **12 September 2022**.

All inquiries should be directed to waternet@waternetonline.org