IAHR AIRH
International Association for Hydro-Environment Engineering and Research
Hosted by
Spain Water and IWHR, China

AFRICA
Online Summer School
2–12 October 2022
africasummerschool.iahr.org

The **Africa Online Summer School** is organized by the IAHR-Africa Division. It is initiated as a commitment from IAHR to reach and connect with African scholar, young professionals, and institutes; and as a mean to promote collaborations that will create solutions for the water security and climate change challenges and help meet net-zero and sustainability targets. This school provides a synthesis of several aspects of hydro-environmental engineering. The main objective of the school is to introduce the main principles hydro-environmental engineering and their importance and practical applications in Africa.

Deliverables

Upon completion, the participant should be able to:

- Recognize the importance of hydro-environmental engineering and its impact on water infrastructures.
- Understand the fundamentals and main principles behind each field of hydro-environmental engineering.
- Be familiar with projects and applications where the hydro-environmental engineering is involved.
- Identify leading experts in the field of hydro-environmental engineering and be familiar with IAHR.
- Identify research and engineering streams that African scholars and professionals should focus on and/or explore.

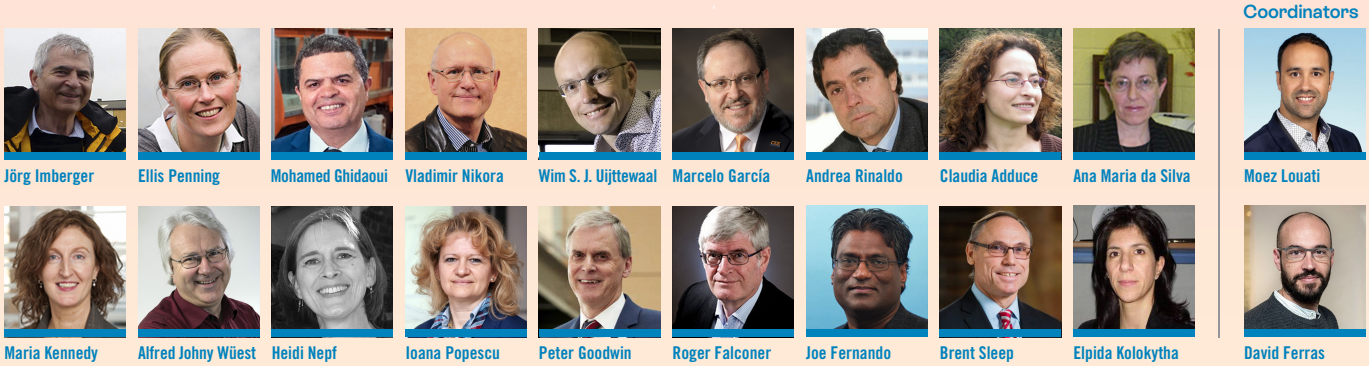
For whom?

This course is intended for a broad audience. Whether you are a young professional or a senior, academic or practitioner, the course will help you to learn, identify and connect between the different aspects of hydro-environmental engineering.

Workload

The course is composed of 18 lectures. Two lectures are given each day. In total, the school is composed of 13 h of lectures (45 min for each lecture). No official assignments are required, but some professors may provide simple assignments. A Professional Certificate of Attendance (PCA) is issued under request.

Lecturers



#IahrAfrica

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OPENING

02 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT

Prof. Joseph Hun-Wei Lee
IAHR President

Dr Alexandros Maharigakis | UNESCO
Dr Tassew Mekuria | UMCES
UN WATER representative (TBA)
Prof. Daouda Koné | Director of Capacity Building at WASCAL

WEEK_1

03 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Jörg Imberger
Overview on the Hydro-environmental engineering and research challenges in Africa

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Peter Goodwin
Climate change adaptation

04 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Roger Falconer
Water Security from Global to Regional Scales

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Dr Ellis Penning
Contributing to the Sustainable Development Goals (SDGs) using an ecosystem-based approach

05 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Vladimir Nikora
Short introduction to turbulent flows

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Claudia Adduce
Jets and Plumes

06 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Andrea Rinaldo
Environmental Transport

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Wim S. J. Uijttewaal
Shallow flows, with applications in hydraulic engineering

07 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Mohamed S. Ghidaoui
Waves in Hydro-systems

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Ana Maria da Silva
River dynamics

08 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Harindra Joseph Fernando
Fundamental concepts in environmental fluid mechanics

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Marcelo García
Sediment transport

WEEK_2

10 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Brent Sleep
Remediation of groundwater contamination

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Heidi Nepf
Vegetation Hydrodynamics

11 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Maria Kennedy
Seawater desalination and environment

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Elpida Kolokytha
Introduction on water resources planning and management

12 OCT

05.00 Ontario | 07.00 Chicago | 14.00 CET | 20.00 HKT
Prof. Alfred Johny Wüest
Seasonal stratification and mixing of African lakes and reservoirs

06.00 Ontario | 08.00 Chicago | 15.00 CET | 21.00 HKT
Prof. Ioana Popescu
Hydroinformatics-and ICT solution for water-related problems: Past experiences and ongoing projects

How to participate?

This short course is open only to IAHR members. To register for the summer school, please use the Zoom webinar registration link. The lectures will be given using Zoom Webinar. Detailed information will be sent to the email address given in the registration form.

If you are not yet a member, please join IAHR and become a member, or contact Carmen Sánchez to register for this event. By registering for this event, you will recieve one-year free membership.

If you are African living in Africa, you can apply for this discount or free registration. Priority will be given to students and young professionals.

If you would like to receive, after the course, a **Professional Certificate of Attendance** (fee: EUR 50) issued by IAHR, please indicate your intention in the registration form. Please contact Carmen Sánchez for payment processing.