Dr. Tunde Olarinoye

Water Resources Scientist I Hydrology & Environmental Data Expert I International Advisor

International Professional Résumé

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PROFESSIONAL PROFILE

Water systems are changing faster than our ability to manage them. I work to close that gap, with rigorous hydrology, open data and clear advice for the people who have to decide.

With a multidisciplinary academic background and professional experience in international scientific cooperation, I work at the intersection of research, data and development. My interests include soil moisture monitoring, hydrological modelling, water information systems, climate resilience and strengthening the scientific foundations of water resources management.

KEY COMPETENCIES

Hydrology and water resources assessment	Understanding how much water there is, where it goes and how it will change.
Soil moisture and hydroclimatic monitoring	Building and using observations that show how wet or dry a landscape really is.
Geospatial analysis, Earth observation and modelling	Linking satellite, model and field information into usable evidence.
Environmental data management and digital infrastructure	Making water data findable, trustworthy and usable.
Water information systems and scientific data governance	Connecting data centres, institutions and communities around shared standards.

PROFESSIONAL EXPERIENCE

Dec 2021 – Present

Research Scientist
International Centre for Water Resources and Global Change (ICWRGC), UNESCO, Koblenz, Germany

- Acquisition, management and product development for the global ISMN data service and its international data-provider portfolio.
- Strategic outreach, communication and stakeholder engagement for ISMN and the Centre.
- Initiated and led new international activities: an EGU data-services session (2023), an annual ISMN splinter meeting, a virtual data-provider workshop series and a joint ISMN / IAHS workshop in India (2025).

2018 – 2021

Scientific Employee / Doctoral Researcher

Chair of Hydrological Modelling and Water Resources, University of Freiburg, Freiburg, Germany

- Led WoKaS, the first global open database of karst spring discharge (400+ springs).
- Developed automated methods for recession analysis and classification of spring hydrographs.
- Supervised Bachelor's and Master's projects; co-organised an international PhD workshop.

2017 – 2018

Graduate Researcher

IHE Delft Institute for Water Education (UNESCO-IHE), T-GroUP project, Delft, the Netherlands

- Assessed the impacts of land-use and land-cover change and climate change on present and future water availability in Arusha, Tanzania (Water International, 2020).
- Ground-truthed land-use maps classified from Landsat 5 and Sentinel-2 imagery and mapped water utilities during fieldwork in Arusha.

2013–2016

Earlier positions

- **Research Intern**, Deltares, Utrecht, the Netherlands (Aug 2016 – Sep 2016).
- **Assistant Technical Supervisor**, Slabmark Nigeria Limited, Nigeria (2014 – 2015).
- **Project Supervisor**, Bukevic Hydrological Services, Nigeria (2013 – 2014).

SELECTED ACHIEVEMENTS

- Led WoKaS, the first global open database of karst spring discharge (400+ springs), published in Scientific Data (2020).
- Initiated and led an EGU data-services session (2023) bringing together ISMN, GRDC, GWDC, IGRAC and GTN-H.
- Proposed and organise the annual ISMN splinter meeting at EGU and a virtual data-provider workshop series.
- Led a joint ISMN / IAHS HELPING workshop at the IAHS Scientific Assembly, Roorkee, India (2025).
- Awarded a DAAD research-exchange scholarship (2021) and a full EU Erasmus Mundus scholarship (2015–2017).

INTERNATIONAL COOPERATION

UNESCO International Hydrological Programme (IHP) · World Meteorological Organization (WMO) · Global Climate Observing System (GCOS), TOPC · IAHS working groups, EURO-FRIEND, MOXXI · European Geosciences Union (EGU) · Global Terrestrial Network for Hydrology (GTN-H), GRDC, IGRAC. Fieldwork and professional experience in Nigeria, Tanzania, Mozambique, Germany, the Netherlands, Portugal, France, Spain, United Kingdom, India.

EDUCATION

2018 – 2022

Ph.D. in Hydrology

University of Freiburg, Freiburg, Germany

2015 – 2017 **Erasmus Mundus Joint M.Sc. in Groundwater and Global Change (GroundwatCh)**
IHE Delft · Instituto Superior Técnico Lisbon · TU Dresden, the Netherlands · Portugal · Germany

2006 – 2011 **B.Sc. Agricultural and Environmental Engineering (First Class Honours)**
Olabisi Onabanjo University, Nigeria

SELECTED PUBLICATIONS

1. **Olarinoye, T.**, Gleeson, T., Hartmann, A. (2022). **Karst spring recession and classification: efficient, automated methods for both fast- and slow-flow components.** Hydrology and Earth System Sciences, 26, 5431–5447. doi:10.5194/hess-26-5431-2022
2. **Olarinoye, T.**, Foppen, J. W., Veerbeek, W., Morienyane, T., Komakech, H. (2020). **Exploring the future impacts of urbanization and climate change on groundwater in Arusha, Tanzania.** Water International. doi:10.1080/02508060.2020.1768724
3. **Olarinoye, T.**, Gleeson, T., Marx, V., et al. (2020). **Global karst springs hydrograph dataset for research and management of the world's fastest-flowing groundwater.** Scientific Data, 7, 59. doi:10.1038/s41597-019-0346-5

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