europass

Soliu Mudashiru

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ABOUT ME

Master's graduate in Exploration Geophysics with a strong focus on groundwater, environmental geophysics, and geospatial modelling. I have hands-on experience in groundwater assessment, GIS/remote sensing, and data-driven environmental analysis. I am seeking international opportunities to strengthen my skills in groundwater modelling and contribute to sustainable water management in vulnerable communities.

I am particularly interested in the GroundwatCh Joint Master's programme, as it will offer advanced training in modelling, monitoring, and climate resilience, needed to address real-world water challenges.

WORK EXPERIENCE

FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE – AKURE, NIGERIA

GRADUATE STUDENT – 01/03/2021 – 29/09/2025

- Conducted groundwater flow modelling using GIS-based analytical tools.
- Interpreted hydrogeological parameters to evaluate groundwater potential.
- Prepared groundwater monitoring datasets and contributed to field data acquisition.
- Developed maps for groundwater vulnerability using ArcGIS & Google Earth Engine.
- Mentored undergraduate students in their project works.

FREELANCE – AKURE, NIGERIA

GIS AND REMOTE SENSING EXPERT – 10/07/2022 – CURRENT

- Processed multispectral imagery from Sentinel and Landsat tools for groundwater-related studies.
- Carried out spatial interpolation and geostatistical analysis using ArcGIS and Python programming language.
- Produced thematic maps and digital elevation analyses to support environmental assessments.

FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE, NIGERIA – AKURE, NIGERIA

ENVIRONMENTAL SCIENTIST – 11/05/2023 – CURRENT

- Coordinated researchers in geophysical field surveys for groundwater studies.
- Supported on-site measurements of relevant water quality parameters like EC, pH.
- Assisted in environmental impact surveys, data logging, and reporting.
- Collaborated in the authoring of scientific publications from the research.

EDUCATION AND TRAINING

12/03/2021 – 18/09/2025 Akure, Nigeria

MASTERS OF TECHNOLOGY Federal University of Technology

- Advanced groundwater geophysics
- Advanced environmental geophysics
- Time series and inversion theory

Website https://w.futa.edu.ng/ | **Field of study** Earth sciences | **Final grade** 4.43/5.00 (Approximately 88.6%) |

Thesis "Development of IDOCRIW-COCOSO and IDOCRIW – MAUT Decision Support System Models for Groundwater Potentiality and Vulnerability in a Basement Terrain"

05/03/2013 – 18/11/2018 Akure, Nigeria

BACHELOR OF TECHNOLOGY Federal University of Technology

- Groundwater geophysics
- Hydrogeology 1

Field of study Earth sciences | **Final grade** Second Class Hon. (Upper Division) - 3.82/5.00 (Approximately 76.4%) |

Thesis "Subsoil evaluation for pre-foundation study using geophysical methods at FUTA staff quarters"

PROJECTS

18/10/2024 – 11/09/2025

Geospatial technology-based MCDA and machine learning algorithms: an ensemble and inter-evaluating frameworks for conceptualizing groundwater potential

This is a collaborative research project I participated in. My inputs are as follows:

- Processed remote sensing datasets (LULC, DEM, PERSIANN).
- Performed machine learning and MCDA modelling.
- Produced groundwater potential maps based on the models.
- Co-authored the manuscript first draft.

Codes outputs on GitHub.

14/11/2024 – CURRENT

"Modelling of groundwater vulnerability employing fuzzy logic conditioning of influencing factors: case study of a basement complex area"

I am a participating researcher in this project. My roles include:

- Conceptualization of the proposed fuzzy logic algorithm.
- Modelling of the conditioning factors integrated into the fuzzy logic model.
- Authored the accepted PhD proposal.

07/11/2023 – 13/09/2025

Groundwater potential assessment leveraging the hybrid objective model (IDOCRIW-CoCoSo) in the basement terrain of Nigeria: insights from remote sensing and geophysical datasets

This was a research excerpt from my Master's thesis. My inputs are:

- Integrated geophysical and remote sensing datasets to forecast groundwater use.
- Employed decision-making frameworks for planning urban water resilience.
- Co-drafted the submitted manuscript.

SKILLS

Hydrology & Groundwater

Hydrological modeling, Water balance | Groundwater flow modelling

GIS & Remote Sensing

Landsat, MODIS, Sentinel satellite image processing | DEM analysis, Raster modelling, Spatial interpolation | Knowledge in ArcGIS, Google Earth Engine, Surfer

Programming and Data Analysis

Python programming for geospatial modelling | Beginner level (R programming) | Machine learning for environmental prediction

Soft Skills

Leadership and Teamwork | Problem Solving and Analytical Thinking | Scientific research and writing

PUBLICATIONS

2024

Subsurface competence evaluation using electrical resistivity method at a proposed building site along FUTA staff quarters, Oba Nla, Akure Southwestern Nigeria

Authors: Mudashiru, S.A., Olatunji, A.O., Oke, P.A, Adeyanju, O.L., Orewale, T.P | **Journal Name**: Pakistan Journal of Geology | **Volume, Issue and Pages**: 8 (1): 80.87.

2025

Groundwater potential assessment leveraging the hybrid objective model (IDOCRIW-CoCoSo) in the basement terrain of Nigeria: insights from remote sensing and geophysical datasets

Status: Under Review

Outputs on GitHub

Authors: Mogaji, K.A., Mudashiru, S.A., Ozegin, K.O., Oguntade, S.S | **Journal Name**: Cleaner Water | **Publisher**: Elsevier

2025

Geospatial technology-based MCDA and machine learning algorithms: an ensemble and inter-evaluating frameworks for conceptualizing groundwater potential

Status: Under Review

Authors: Ozegin, K.O., Mudashiru, S.A & Ejepu, J.S | **Journal Name**: Ecological Frontiers | **Publisher**: Elsevier

VOLUNTEERING

20/10/2025 – 10/11/2025 Akure

Machine Learning Modeller for Team Klanar

Team Klanar comprised five 500- level undergraduate students that participated in the 2026 edition of Next Generations Explorers Award Global competition. I volunteered as the sixth team member as a graduate student to scale, modify and speed up our work. I handled the modelling aspects of the submission.

Team outputs hosted on GitHub

CONFERENCES AND SEMINARS

14/11/2023 – 16/11/2023 Virtual

Water and Development Symposium Virtual Conference by IHE DELFT

The webinar highlighted key issues on water resources development including groundwater sustainability under ecosystem stress as well as diversity for effective water management.

LANGUAGE SKILLS

Mother tongue(s): **ENGLISH**

RECOMMENDATIONS

Prof. (Assoc.) K. O. Ozegin

Academic referee and research collaborator

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Dr. A.A. Akinlalu

Academic referee and co-supervisor of research activities

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