**BENJAMIN WULLOBAYI DEKONGMEN**

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**Education**

**PhD, Environmental Engineering Management, 2020 to present**

University of Energy and Natural Resources, Sunyani, Ghana

**Master of Science, Water Resources Engineering & Management, 2018-2021**

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

**Bachelor of Science, Environmental Engineering 2013-2017**

University of Energy and Natural Resources, Sunyani, Ghana

**West African Examinations Council, General Science 2008-2012**

St. Charles Minor Seminary / Senior High School, Tamale, Ghana

**Certificates:**

**Certified Publons Academy:** Peer Reviewer (15 credit hour)  **4th February 2021**

**InforMEA UN:** [Introductory course to International Environmental Law](https://elearning.informea.org/course/view.php?id=48)  **5th June 2019**

**UN CC: eLearn: Certificate:** Specialized Module onCities and Climate Change **31st May 2019**

**UN CC: eLearn: Certificate:** Introduction to Sustainable Finance **24th May 2019**

**Career Objective** With observations and experience over the years, I believe that the use of technology and its adaptation for efficient management of the environmental and natural resources would help the local communities as well as large scale implementation of projects to ensure the success of the SDGs in Ghana and Africa. I have therefore endeavoured to use technology with its engineering principles to innovate and manage the earth's resources to reduce human stress.

**Work Experiences**

* **Assistant Lecturer 2021 to Present**

Department of Agricultural Engineering, Faculty of Engineering, Ho Technical University, Box HP 217, Ho, Ghana.

**Activities:** Teaching, curriculum development, setting and submission of assignments, and examinations, invigilation of examinations, submission of marked script and results, supervision of students’ project work, dissertations and thesis, including related research, innovations, publications, offering academic counselling … etc.

* **Teaching and Research Assistant 2017 to 2018**

Department of Civil and Environmental Engineering-Earth Observation Research and Innovation Centre (EORIC), University of Energy and Natural Resources (UENR), Sunyani.

**Activities:** I organised and facilitated tutorials on the courses that were handled by my supervisor and I assisted with the supervision of BSc final year students’ projects and writing of research grant proposals. I also conducted quizzes and marking of mid-semester examination scripts and as well as daily weather forecasting.

* **Intern July – August 2019**

Community Water and Sanitation Agency (CWSA), Sunyani

* **Assistant Field Technician December 2018-March, 2019**

EMO-GEOMATICS, Kumasi, Asset Mapping for Electricity Company of Ghana (ECG) in the Ashanti Region, Ghana.

* **Assistant Field Technician** **12th -16th June 2018**

RELAB-UENR, Project at Lake Bosomtwe, Ashanti Region, Ghana. Ground Truthing (collection of ground coordinates with GPS device in the forest, agricultural fields, plantations, settlements, Geotagging etc.)

* **Intern April-July 2016**

Ghana Water Company Limited (GWCL), Wa, UW/R, Ghana

I worked as Assistant Water Quality and Assurance Technician.

**Activities performed:** monthly distribution sampling at selected points in the city, daily sampling, preparation of media, water quality checks at reservoirs- two-hour intervals daily, washing of media bottles, dosing of Calcium Hypochlorite at reservoirs, weekly cleansing of glassware, weekly cleaning of dosing containers at reservoirs, monthly water sampling at Black Volta River, monthly jar test analysis, and Calibration of instruments-monthly.

* **Intern May-August 2015**

Newmont Ghana Gold Limited (NGGL), Yamfo, Sunyani

Intern Assistant Environmental Field Technician

**Activities performed;** groundwater sampling, monthly groundwater monitoring, surface water sampling, potable water sampling, air quality monitoring, and 24-hour noise monitoring.

* **Intern July-September 2014**

Newmont Ghana Gold Limited (NGGL), Yamfo, Sunyani

Intern Assistant Environmental Field Technician: I worked on the following activities per the period; groundwater sampling, monthly groundwater monitoring, surface water sampling, potable water sampling, air and noise monitoring.

* **Part-time Tutor June to July 2014**

One-Touch Remedial classes, Wa, UW/R: Core Mathematics Tutor

* **Pupil Teacher 2012 to 2013**

Our Home International School, Wa, UW/R, Ghana

Subjects Handled; Mathematics, Integrated Science, and Religious and Moral Education.

**Software/ Others Applications**

***Advance knowledge and skills in*;**

* ArcGIS & Remote Sensing
* Arc/QSWAT
* HEC-HMS/Arc Hydro
* Python (Jupyter notebook\_Basics)

**Extra-Curricular Activities**

* **Class Representative at Lecturers and Students Consultative Meeting.** University of Energy and Natural Resources, Sunyani, Ghana, 2015 to 2017
* **Class Representative (Class Rep).** University of Energy and Natural Resources, Sunyani, Ghana, 2015 to 2017
* **Chief Sacristan.** St. Charles Minor Seminary / Senior High School, 2011 to 2012
* **Junior Sacristan.** St. Charles Minor Seminary / Senior High School, 2008 to 2011
* **Senior Boys Prefect -** Amoma King of Kings Prep / Junior High School. Amoma, Kintampo-South, 2007 to 2008.

**Articles Accepted-In-Press, Under Review/Revision and on-going project**

1. Kpiebaya, P, Amuah, EEY, Shaibu, A, Baatuuwie, BN, Avornyo, VK, **Dekongmen, BW** (2022). Spatial assessment of groundwater potential using Quantum GIS and multi-criteria decision analysis (QGIS-AHP) in the Sawla-Tuna-Kalba district of Ghana. *Journal of Hydrology: Regional Studies*, 43, 1–22. <https://doi.org/10.1016/j.ejrh.2022.101197>
2. Abebrese, S, Anornu, GK, Kabo-Bah, AT, **Dekongmen BW** and Sunkari ED (2022). Assessment of groundwater potential zones using GIS and remote sensing techniques in the Bole District, Savannah Region, Ghana. *International Journal of Energy and Water Resources*, <https://doi.org/10.1007/s42108-022-00207-y>
3. **Dekongmen, BW,** Anornu, GK, Kabo-bah, AT, Larbi, I, Sunkari, ED, Dile, YT, Agyare, A and Gyamfi, C (2022). Groundwater recharge estimation and potential recharge mapping in the Afram Plains of Ghana using SWAT and remote sensing techniques. *Journal of Groundwater for Sustainable Development*, 17 (6), 1–14. DOI: <https://doi.org/10.1016/j.gsd.2022.100741>
4. **Dekongmen, BW,** Kabo-bah, AT, Domfeh, MK, Sunkari, ED, Dile YT, Antwi, EO, and Gyimah, RAA (2021). Flood vulnerability assessment in the Accra Metropolis, southeastern Ghana. *Journal of Appl Water Sci,* 11 (7) 134. <https://doi.org/10.1007/s13201-021-01463-9>.
5. Nkonu, R.S., Antwi, M., Amo-Boateng, M., **Dekongmen B.W.** GIS-Based Multi-Criteria Analytical Hierarchy Process Modelling for Urban Flood Risk Analysis and Assessment, Accra Metropolis (*Journal of Natural Hazards*, **DOI: 10.21203/rs.3.rs-1712549/v1, Preprint\_May, 2022**)

**Grants/Awards**

* EO Africa R&D Facility. 2022-05-15 to 2022-05-19| ITC Hengelosestraat 99 7514 AE Enschede, NL| Training Grant €200.00
* **Africa Centre of Excellence-**Regional Water and Environmental Sanitation Centre, Kumasi (RWESCK) at Kwame Nkrumah University of Science and Technology, Kumasi, Ghana (2018-2020)

**Events Organized**

* Organizer and Facilitor: A Day Advance Mendeley Training Workshop @ Ho Technical Universiy, 2022-08-19.

**Peer Reviewer**

* Reviewer, Journal of Hydrology (Elsevier) 2022-date
* Reviewer, Water Resources Management (Springer Nature), December 2020- date.
* Reviewer, Sustainable Water Resources Management (Springer Nature), April 2022 -date.

**Professional Associations**

* Ghana Institution of Engineering (MGhIE-TPE No:12564).
* West African Institute of Mining, Metallurgy and Petroleum (WAIMM) – Postgraduate Student Member.
* International Association of Hydrological Sciences (IAHS) (Membership No: 19267).

**Acknowledgement/awards/citations**

* Tsakiris, G. Acknowledgement of Reviewers 2020. *Water Resour Manage* 35, 1389–1395 (2021). https://doi.org/10.1007/s11269-021-02772-z.

**Research interests focus:** Groundwater Modelling Using Remote Sensing and GIS-SWAT /SWAT+ Techniques, Floods Modelling, Rainwater Harvesting Techniques for irrigation, Sanitation and Land Use Land Cover impact on natural resources, Hygiene promotion and Behaviour Change Communication, Water, sanitation and hygiene (WASH) assessment.

**Conferences, Workshops and Seminars**

* **Earth Observations for Water Resources Assessment and Monitoring,** Erata Hotel, Accra 15-19th May, 2022.
* **GNSS Radio Occultation Processing and Science Applications at UCAR's COSMIC Program, J. Weiss and the CDAAC, COSMIC-1, and COSMIC-2 Teams,** North Ridge Hotel, Accra, Ghana, May 14, 2022.
* **5th United Nation|Ghana|PSIPW|** International Conference on the use of Space Technology for Water Resources Management, North Ridge Hotel, Accra, Ghana, 10-13th May, 2022.
* **UNEP Workshop on Monitoring Plastics in Rivers and Lakes: Guidelines for the Harmonization of Methodologies,** CSIR-STEPRI, Accra, 13-15th December 2021.
* **Two Days International E - Workshop on “Climate Change Impacts on Groundwater Quality and Health Issues: Review and Way forward”** (WATER CARE 2021) organised by Department of Civil Engineering, Sri Shakthi Institute of Engineering and Technology, Coimbatore - 641 062, Tamil Nadu, India, 22 - 23 April 2021.
* **International Model United Nations (IMUN)** Online Conference 40.0, 16th - 17th January 2021.
* **QSWAT Training Workshop**, University of Cape Coast, Ghana, 17th-21st February 2020.
* **QSWAT Training Workshop**, CSIR-STEPRI, Accra, Ghana, 12-17th August 2019.
* **1st International Conference on Geography and Development: “Climate Change and Sustainable Development”,** KNUST, Ghana, 27th July 2018.
* **Two days’ workshop on the topic: “Technology developments and assessments using Computational Fluid Dynamics (CFD)”**, University of Energy and Natural Resources, Sunyani, Ghana, 21st -22nd June 2018.
* **Science Festival.** Tel-Conferencing moderator. University of Energy and Natural Resources, Sunyani, Ghana, 7th -10th February 2018.
* **2nd Ghana Youth Conference on Climate Change and Sustainable Development;** Integrating Youth in the Implementation of Ghana's Nationally Determined Contributions and the Sustainable Development Agenda.British Council, Accra, Ghana, 2017.
* **SEACRIFOG -** Project Stakeholder Consultation workshop. University of Energy and Natural Resources, Sunyani, Ghana, 2017.
* **Afri-GEOSS Symposium-Group on Earth Observations System of systems.** Delivering Earth Observations for Policy and Sustainable Societal Impact in Africa.TYCO CITY Hostel, Sunyani, Ghana, 2017.
* **AGM-Ghana Institution of Engineering (GhIE):** Ghana’s Natural Resources and Sustainable Development-The Role of the Engineer, Eusbett International Conference, Sunyani, 27th -31st March 2017.
* **Energize the Base of the Pyramid (BOP).** Ispace, Accra, Ghana, 2015.

**References**

* **Prof. Geophrey K. Anornu,** Email: [anoprof@hotmail.com](mailto:anoprof@hotmail.com), Tel: +233244882912

Dean, Faculty of Civil and Geo-Engineering

Kwame Nkrumah University of Science and Technology, Kumasi

* **Ing. Prof. Amos T. Kabo-bah**, Email: [amos.kabobah@uenr.edu.gh](mailto:amos.kabobah@uenr.edu.gh), Tel: +233543859721

Senior Lecturer; Head, International Relation Office; Civil and Environmental Engineering, University of Energy and Natural Resources (UENR), Box 214, Sunyani, Bono, Ghana.

* **Ing. Prof. Eric Ofosu Antwi,** Email: eric.antwi@uenr.edu.gh, Tel: +233208812106

Director; Regional Centre for Energy and Environmental Sustainability

Senior Lecturer, Civil and Environmental Engineering Department, University of Energy and Natural Resources (UENR), Box 214, Sunyani, Bono, Ghana.

* **Ing. Dr. Emmanuel K. Nyantakyi (SPE-GhIE)**

Head, EORIC-UENR

Senior Lecturer, Civil and Environmental Engineering Department

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