


PERSONAL INFORMATION

Eric Ofosu Antwi (Ph.D. MGHIE)



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Sex Male | Date of birth 31/01/1979 | Nationality Ghanaian

POSITION KEY QUALIFICATIONS

Eric Ofosu Antwi (Ph.D., MGHIE) is a Civil Engineer with 20 years post qualification experience in Civil Engineering, Project Management, Energy Efficiency, Sustainable Energy Management, Solar PV, Water Supply Engineering, Water Resources Management, Hydropower Engineering, Drainage, Structural and Irrigation Engineering in Ghana and the ECOWAS Region. He has trained a number of people in Solar PV installation, Sustainable Energy Management and Energy Efficiency.

Dr Eric Ofosu Antwi, consults for multinational Companies such as the World Bank, and the Africa Development Bank on Energy and Water Resources Management related assignments.

WORK EXPERIENCE

06/2019 -Present

Director

Regional Centre of Energy and Environmental Sustainability (RCEES)

P.O. Box 214, Sunyani (Ghana) www.rcees.uenr.edu.gh

- Provides leadership at the Centre
- Proposal development for Sustainable Energy and Environment
- Ensure Academic Excellence
- Provide Leadership for the achievement of Strategic Plan of the Centre
- Build network and Partnership for the Centre
- Generate Income for the Centre

Business or sector Education

04/2021-Present

Associate Professor

University of Energy and Natural Resources

P. O. Box 214, Sunyani (Ghana) www.uenr.edu.gh

- Teaches courses in Engineering Graphics, Hydrology and Hydraulics, Research Methods, Hydropower Engineering, Water Engineering, Hydrogeology and Geo-Environmental Engineering

Business or sector Education

09/2016-04/2020

Senior Lecturer

University of Energy and Natural Resources

P.O. Box 214, Sunyani (Ghana) www.uenr.edu.gh

- Teaches courses in Engineering Graphics, Hydrology and Hydraulics, Research Methods, Hydropower Engineering, Water Engineering, Hydrogeology and Geo-Environmental Engineering

Business or sector Education

09/2012 - 08/2016

Lecturer

University of Energy and Natural Resources

P.O. Box 214, Sunyani (Ghana) www.uenr.edu.gh

▪ Teaches courses in Engineering Graphics, Hydrology and Hydraulics, Research Methods, Hydropower Engineering, Water Engineering, Hydrogeology and Geo-Environmental Engineering

Business or sector Education

08/2015 – 03/2020

Regional Chairman

Ghana Institution of Engineering, Bono Ahafo Region

Business or sector Engineering

09/2014 – 12/2018

Board Chairman

Brong Ahafo Waste and Allied Services (BAWAS) (Ghana)

Business or sector Environment and Sanitation

09/2012 – 08/2014

Ag. Head of Department

Department Renewable Energy and Environmental Engineering

Business or sector Environment and Sanitation

09/2009 – present

Guest Lecturer

Kwame Nkrumah University of Science and Technology, Kumasi (Ghana)

<https://www.knust.edu.gh/>

Teaches Integrated Water Resources Management course, River Basin Management, Water Resource Planning and River Systems Modelling course under the Water Resources and Environmental Sanitation.

Business or sector Education

03/2012 – 02/2015

Post – Doc Fellow

Kwame Nkrumah University of Science and Technology, Kumasi (Ghana)

<https://www.knust.edu.gh/>

Smart Sanitation, stimulating local innovation in faecal sludge management in peri urban areas in Sub-Saharan African and South Eastern Asia funded by the Bill and Melinda Gates Foundation

Business or sector Sanitation

08/2012 – 08/2016

Project Manager

Water Resources Commission (Ghana)

Project co-ordinator for the reoperation and re-optimisation of the Akosombo and Kpong Dams. Responsible for coordinating the project activities and project partners. This project was funded by the African Development Bank under the African Water Facility.

Business or sector Sanitation

09/2012 – 03/2013

Ag. Director of Works

University of Energy and Natural Resources (Ghana)

Business or sector Works and Physical Development

09/2005 – 03/2006

Project Officer

Kwame Nkrumah University of Science and Technology, Kumasi (Ghana)

The work involved preparing timetables, organizing lecture materials and lectures, arranging protocols for visiting professors and purchasing of office materials.

Business or sector Water Supply and Environmental Sanitation Programme

EDUCATION AND TRAINING

(2006- 2011)

Ph.D. Integrated Water Resources Management

UNESCO-IHE and TU-Delft, The Netherlands

Thesis: Implications of Upscaling Irrigation Development in the White Volta Basin

(2003- 2005)

MPhil Civil Engineering

Kwame Nkrumah University of Science and Technology

Thesis: Drought Preparedness Plan for Kumasi Water Supply System

(1998- 2002)

BSc Civil Engineering

Kwame Nkrumah University of Science and Technology

Thesis: Water Balance for the Birim Sub-basin

(1998- 2002)

Certification in Sustainable Energy Management

Kwame Nkrumah University of Science and Technology

RELEVANT PROFESSIONAL EXPERIENCE

ENERGY RELATED PROJECTS

November 2020 – April 2021: Analysis of Large Hydropower Energy in Africa, Africa Development Bank.

- *Main Consultant, tasked to develop a Background paper and Position Paper for the Bank.*

August 2020 - Present: Gendered access to Energy in off-grid communities, GenDesignSteam, Carleton University.

- *Energy access strategy for disadvantaged communities in Ghana*

August 2019 - Present: Sustainable Energy Management Professional, Millennium Development Authority and the Energy Commission of Ghana.

- *Professional Certification Training on Sustainable Energy Management*
- *Conduction of Energy Audit Certification for Commercial and Industrial Consumers of Energy including Government Agencies*
- *Development, Training and Assessment of Energy Efficiency Certification Programs*

June 2020 - Present: Energy Efficiency and Renewable Energy Expert, GIZ and AGI of Ghana.

- *Training of Trainers for Energy Efficiency Course*
- *Training of Energy Service Providers and ESCOs on Energy Efficiency*
- *Conduction of Energy Audit Certification for Commercial and Industrial Consumers of Energy*

2014- Present: Solar PV Installation Training Expert, UENR, Solar Grid and Energy Commission.

- *Training on Design and Installation for Stand alone Solar PV Installers*
- *Training on Design and Installation for Grid-connected Solar PV Installers*

2016- Present: Sustainable Energy Management Training Expert, UENR and Solar Grid.

- *Training on Sustainable Energy Management for Industry*
- *Training on Sustainable Energy Management for Energy Experts*
- *Training on Energy Efficiency and Demand Side Management*

2015- Present: China South-South Cooperation Project, UENR, Ministry of Energy and Chinese Government.

- *Installation of Stand-alone Solar Home Systems for off-grid communities in Ghana*
- *Installation of Solar Street Lights in Institutions*
- *Installation of Inverter Air-conditions for Institutions*

WATER RELATED PROJECTS

February 2021 – July 2021: Strategic Notes for Supporting Relevant Water Resources Management Priorities in Ghana, World Bank.

- *Consultant for Water Resources Management on the Project*

November 2020 – May 2021: Wash Sector Strategic Development Plan of Ghana, Ministry of Sanitation and Water Resources.

- *Water Resources Management Expert on the Project*

October 2020 – April 2021: Revision of the 2007 Ghana Water Policy, Ministry of Sanitation and Water Resources.

- *Water Resources Management Expert on the Project*

June 2020 – December 2020: Wash Sector Report of Ghana, Ministry of Sanitation and Water Resources.

- *Water Resources Management Expert on the Project*

June 2020: Preliminary Dam Safety Assessment for the Akosombo and Kpong Dams, Water Resources Commission of Ghana.

- *Hydraulic Engineer and Civil Engineer on the Project*

February 2016- January 2017: Quantification of surface and groundwater resources in the Anyari watershed of the Upper East Region in Ghana, Africa Rising Project, IWMI, Ghana.

- *Water Resources and Irrigation Consultant on the Project*

August 2012- June 2016: Re-operation and re-optimisation of the Akosombo and Kpong Dams, Africa Development Bank, Water Resources Commission, Ghana.

Project Manager for the entire Project

March 2012- June 2012: Review of climate change adaptation for Dayi River Basin, Climate Change Adaptation Program for Ghana, Water Resources Commission, Ghana.

Water Resources and Irrigation Consultant on the Project

PERSONAL SKILLS

Mother tongue(s) Twi

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	A1	A1	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

PUBLICATIONS

Publications in Peer Reviewed Journals

1. Ofosu-Peasah, G., Antwi, E. O., & Blyth, W. (2021). Factors characterising energy security in West Africa: An integrative review of the literature. *Renewable and Sustainable Energy Reviews*, Volume 148 (111259).
<https://doi.org/10.1016/j.rser.2021.111259>
2. Zhang, J., Adu, D., Fang, Y., **Antwi, E. O.**, & Kyekyeku, S. O. J. J. o. C. E. T. (2018). *Renewable Energy Situation in Ghana and Future Prospect*. 6(4).
3. Zhang, J., Daniela, A., Fang, Y., Desmonda, A., **Antwi, E. O. J. I. J.** o. S. G., & Energy, C. (2018). Review on China's renewable energy and future projections. 7(3), 218-224.

4. Atta-Darkwa, Thomas & **Ofosu, Eric** & Emmanuel, Amankwah & Ankamah, Johnson & Akolgo, Gilbert & Asare, Austin & Alexander, Antwi. (2020). Comparison and Estimation of Four Infiltration Models. *Open Journal of Soil Science*. 10. 45-57. 10.4236/ojss.2020.102003.
5. Domfeh, Martin & Gyamfi, Samuel & Amo-Boateng, Mark & Andoh, Robert & **Ofosu, Eric** & Tabor, Gavin. (2020). Free surface vortices at hydropower intakes: - A state-of-the-art review. *Scientific African*. e00355. 10.1016/j.sciaf.2020.e00355.
6. P. N. A. Asare, F. A. Kuranchie, and **E. Ofosu** (2019). Evaluation of incorporating plastic wastes into asphalt materials for road construction in Ghana. *Cogent Environmental Science* (2019), 5: 1576373. <https://doi.org/10.1080/2331843.2019.1576373>
7. S. F. Gyasi, A. A. Boateng, E. Awuah, **E. O. Antwi** (2019). Elucidating the incidence and the prevalence of Schistosomiasis infection in riparian communities of the Bui dam. *Journal of Parasitic Diseases* (2019). doi/10.1007/s12639-019-01089-4.
8. S. A. Okyereh, **E.A. Ofosu**, A.T. Kabobah (2019). Modeling the Impact of Bui Dam Operations on Downstream Competing Water Uses. *Water-Energy Nexus* (2019), <https://doi.org/10.1016/j.wen.2019.03.001>
9. S. Obahoundje, A. Diedhiou, **E. A. Ofosu**, S. Anquetin, B. François, J. Adoukpe, E. Amoussou, Y. M. Kouame, K. L. Kouassi, V. H. N. Bi, M. Y. Ta (2018). Assessment of Spatio-Temporal Changes of Land Use and Land Cover over South-Western African Basins and Their Relations with Variations of Discharges. *Hydrology* (2018,5,56), doi:10.3390/hydrology5040056
10. J. Zhang, D. Adu, Y. Fanga, D. Appiah, **E. O. Antwi** (2018). Review on China's renewable energy and future projections. *International Journal of Smart Grid and Clean Energy* (2018). doi: 10.12720/sgce.7.3.218-224
11. Mortey M. **E.**, **Ofosu** E. A., Kolodko D. V., and Kabo-bah A. T. (2017). Sustainability Assessment of the Bui Hydropower System. *Environments* 2017, 4(25). doi:10.3390/environments4020025
12. Iddrisu, W.A., Nokoe, K.S., Luguterah, A., Ofosu, E.A. (2017). Spatio-Temporal Relationship between River Flows and Gauge Heights in the Black Volta River. *Mathematical Problems in Engineering*.
13. Obahoundje, Salomon & **Ofosu, Eric** & Akpoti, Komlavi & Kabobah, Amos Tiereyangn. (2017). Land Use and Land Cover Changes under Climate Uncertainty: Modelling the Impacts on Hydropower Production in Western Africa. *Hydrology*. 4. 10.3390/hydrology4010002.

14. Appiah-Effah, E., Nyarko, K. B., Awuah, E., Afful K. M. and **Oforu, E. A.** (2017) Performance of Rotary Drum Composter on the Die off of *Ascaris* and *Trichuris* during faecal sludge composting. *Journal of Environmental Engineering*, 2017,
15. Iddrisu, W.A., Nokoe, K.S., Luguterah, A., **Oforu, E.A.** (2017). Generalized Additive Mixed Modeling of River Discharge in the Black Volta River. *Open Journal of Statistics*.
16. Iddrisu, W.A., Nokoe, K.S., Osei, F.B., **Oforu, E.A.** (2016). Spatial Bayesian methods of Flow Forecasting in the Black Volta River. *European Journal of Scientific Research*. Vol. 137, No. 1, pp. 89-105
17. Akpoti K., **Oforu E. A.** and Kabo-bah A. T. (2016). Impacts of Rainfall Variability, Land Use and Land Cover Change on Stream Flow of the Black Volta Basin, West Africa. *Hydrology* 2016, 3(3), 26
18. Afful K., Oduro-Kwarteng S., **Oforu E. A.** and Awuah E, (2016). Odour Impact Determination of a Communal Toilet: Field Measurement with Panellists Using Dynamic Plume Method and Dispersion Modelling. *Open Journal of Air Pollution*.
19. Appiah-Effah, E., Nyarko, K. B., **Oforu, E. A.** and Awuah, E., (2016). Effect of bulking materials and mixing ratios on concentration of nutrients during composting of raw faecal sludge from peri-urban areas. *Water Practice & Technology*, Vol 11, No. 1, 2016
20. Appiah-Effah, E., Nyarko, K. B., Adum, L., **Oforu, E. A.** and Awuah, E., (2015). Perception of Peri-Urban Farmers on Fecal Sludge Compost and Its Utilization: A Case Study of Three Peri-Urban Communities in Ashanti Region of Ghana. *Compost Science & Utilization*, 23:4, 267-275. 2015
21. Mul, M.L., Sidibé, Y., Annor, F., **Oforu, E. A.**, Boateng-Gyimah, Ampomah, B., Addo, C., (2015). Balancing hydro generation with sustainable ecosystem management. In *Water storage and hydropower development for Africa - Supplement to the International Journal of Hydropower and dams*, page 46-50, 2015.
22. Appiah-Effah, E., Nyarko, K. B., **Oforu, E. A.** and Awuah, E., (2015). Heavy metals and microbial loads in raw fecal sludge from low income areas of Ashanti Region of Ghana. *Water Practice & Technology* Vol 10 No 1, 2015.
23. A. T. Kabo-bah, G. K. Anornu, **E. A. Oforu**, Robert Andoh, Kamila Justyna (2014). Spatial-temporal phenomena of Evapotranspiration over Black Volta of West Africa. *International Journal of Water Resources and Environmental Engineering* Vol 6 (4), 2014.
24. **Oforu, E. A.**, van der Zaag P., van de Giesen N., Odai S. N., Sakah,

- M., (2014). Success Factors for Sustainable Irrigation Development in sub-Saharan Africa. *African Journal of Agricultural Research*, Vol 9 (51) p 3720-3728, 2014.
25. **Ofofu, E. A.**, van der Zaag P., van de Giesen N., Odai S. N., Amanor, R. (2014). Upscaling of Irrigation development in the White Volta sub-basin. *Journal of Energy and Natural Resource Management*, Vol 1, Issue 1.
26. Gyasi S. F., Awuah Esi, **Ofofu E. A.**, Kotei D. & Mohamed A. K., (2013). Environmental Sanitation Attitudes in Buruli Ulcer endemic communities and its potential impact on MU infections in the Asanti Akim North District, Ghana. *Research Journal of Environmental Science*, ISSN 1819-3412.
27. **Ofofu, E.A.**, van der Zaag P., van de Giesen N., Odai S. N., (2010). Productivity of irrigation technologies in the White Volta basin. *Physics and Chemistry of the Earth. Volume 35, Issues 13-14, Pages 706-716*

Publications in Book Chapters

1. Yaa Ntiamoah Baidoo, Ben Yaw Ampomah, and **Eric Antwi Ofofu** (2017). Dams, Development and Downstream Communities: Implications for Re-optimising the operations of the Akosombo and Kpong Dams in Ghana. ISBN: 978-9988-2-5046-1
2. **Ofofu Eric Antwi** (2011), Sustainable Irrigation Development in the White Volta sub-basin (201). Published by CRC Press. The Netherlands. ISBN 9780415621038 - CAT# K14719
3. Asamoah M., Kabo-Bah A.T., **Antwi-Ofofu E.** (2020) Spatial and SocioEconomic Impacts Analysis of BUI Hydropower Dam on Downstream Communities. In: Adjallah K., Birregah B., Abanda H. (eds) *Data-Driven Modeling for Sustainable Engineering. ICEASSM 2017. Lecture Notes in Networks and Systems*, vol 72. Springer, Cham. https://doi.org/10.1007/978-3-030-13697-0_23
4. **Eric A. Ofofu**, Mark Amo-Boateng, Martin K. Domfeh, Robert Andoh (2018). Re-engineering Hydropower Plant for Improved Performance. In (Ed) Amos Kabo-bah and Chukuemekah J. Diji, *Sustainable Hydropower in West Africa: Planning Operation and Challenges*. 189-195. Academic Press. An imprint of Elsevier. <https://doi.org/10.1016/B978-0-12-813016-2.00012-5>
5. **Eric A. Ofofu**, Marloes Mul, Maxwell Boateng-Gyimah, Frank Annor, and Ben Y. Ampomah (2017). Overview of the Re-operation and Re-optimisation of the Akosombo and Kpong Dams Project. In (Ed) Yaa Ntiamoah Baidoo, Ben Yaw Ampomah, and Eric Antwi Ofofu. *Dams, Development and Downstream Communities: Implications for Re-optimising the operations of the Akosombo and Kpong Dams in Ghana*

6. Marloes L. Mul, **Eric A. Ofosu**, Yaw Mante, Benjamin Ghansah, Frank O. Annor, and Maxwell Boateng-Gyimah (2017). Defining Restoration Flow Targets to Restore Ecological Functions and Livelihoods in the Lower Volta Basin. In (Ed) Yaa Ntiamoah Baidoo, Ben Yaw Ampomah, and Eric Antwi Ofosu. Dams, Development and Downstream Communities: Implications for Re-optimising the operations of the Akosombo and Kpong Dams in Ghana
7. Marloes L. Mul, Bedru Balana, Frank O. Annor, Maxwell Boateng-Gyimah, **Eric A. Ofosu**, and Jeffrey Dokyi (2017). Framework for Re-operating the Large Hydropower Dams to Improve Local Livelihoods and Poverty Reduction. In (Ed) Yaa Ntiamoah Baidoo, Ben Yaw Ampomah, and Eric Antwi Ofosu. Dams, Development and Downstream Communities: Implications for Re-optimising the operations of the Akosombo and Kpong Dams in Ghana