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RESEARCH

Areas Water Science and Technology · Environmental Engineering · Global and Planetary Change · Ocean Engineering · Civil and Structural Engineering · Ecology

RESEARCH SUMMARY

14	202	8	8	1.11	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 14 publications listed below, 2009–2025. Field-weighted impact is the mean over the 14 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 14 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 14

1. Emmanuel Arthur, Charles Gyamfi, **Fred Oppong Kyekyeku Anyemedu**, Maxwell Anim-Gyampo (2025). Hybrid AHP-machine learning modelling of groundwater recharge potential under land use and climate change in tropical Basins: Implications for sustainable water management. *Environmental and Sustainability Indicators*. https://doi.org/10.1016/j.indic.2025.100796
2. Kwame Sarkodie, Emmanuel Agyei, Samuel Narveh, **Fred Oppong Kyekyeku Anyemedu**, Caspar Daniel Adenutsi, William Apau Marfo (2025). Predicting physico-chemical parameters of Barekese reservoir using feedforward neural network. *Scientific African*. https://doi.org/10.1016/j.sciaf.2025.e02779
3. Emmanuel Arthur, Charles Gyamfi, **Fred Oppong Kyekyeku Anyemedu**, Maxwell Gyampo (2025). SPATIAL and temporal dynamics of groundwater vulnerability to contaminants under climate and land use changes in the Pra and Ankobra basins. *Watershed Ecology and the Environment*. https://doi.org/10.1016/j.wsee.2025.05.001
4. Jeff Dacosta Osei, **F. O. K. Anyemedu**, Desmond Karikari Osei (2023). Integrating 2D hydrodynamic, SWAT, GIS and satellite remote sensing models in open channel design to control flooding within road service areas in the Odaw river basin of Accra, Ghana. *Modeling Earth Systems and Environment*. https://doi.org/10.1007/s40808-023-01742-1
5. Jeff Dacosta Osei, Peter Damoah-Afari, **F.O.K. Anyemedu**, Eric Olenya Lartey, Lily Lisa Yevugah (2023). Using integrated GIS and hydrological analysis for sizing culverts of multiple channel crossings at the flooded section of the Daboya-Mankarigu Road (IR10) in Ghana. *Heliyon*. https://doi.org/10.1016/j.heliyon.2023.e22863
6. Ebenezer Boakye, **F. O. K. Anyemedu**, Emmanuel A. Donkor, Jonathan A. Quaye-Ballard (2021). Variability of suspended sediment yield in the Pra River Basin, Ghana. *Environment Development and Sustainability*. https://doi.org/10.1007/s10668-021-01494-x
7. E. A. Kwarteng, C. Gyamfi, **F. O. K. Anyemedu**, K. A. Adjei, G. K. Anornu (2020). Coupling SWAT and bathymetric data in modelling reservoir catchment hydrology. *Spatial Information Research*. https://doi.org/10.1007/s41324-020-00337-7
8. Emmanuel Arthur, **Fred Oppong Kyekyeku Anyemedu**, Charles Gyamfi, Patricia Asantewaa - Tannor, Kwaku Amaning Adjei, Geophrey Kwame Anornu, Samuel Nii Odai (2020). Potential for small hydropower development in the Lower Pra River Basin, Ghana. *Journal of Hydrology Regional Studies*. https://doi.org/

10.1016/j.ejrh.2020.100757

9. Ebenezer Boakye, **F. O. K. Anyemedu**, Emmanuel A. Donkor, Jonathan A. Quaye-Ballard (2020). Spatial distribution of soil erosion and sediment yield in the Pra River Basin. *SN Applied Sciences*. https://doi.org/10.1007/s42452-020-2129-1

10. Ebenezer Boakye, **F. O. K. Anyemedu**, Jonathan A. Quaye-Ballard, Emmanuel A. Donkor (2019). Spatio-temporal analysis of land use/cover changes in the Pra River Basin, Ghana. *Applied Geomatics*. https://doi.org/10.1007/s12518-019-00278-3

11. M. K. Domfeh, **F. O. K. Anyemedu**, G. K. Anornu, K. A. Adjei, S. N. Odai (2016). Assessment of the water balance of the Barekese reservoir in Kumasi, Ghana. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v35i3.4

12. Charles Gyamfi, Robert Boakye, Esi Awuah, **Frederick Anyemedu** (2013). Application of the Ccme-Wqi Model in Assessing the Water Quality of the Aboabo River, Kumasi-Ghana. *Journal of Sustainable Development*. https://doi.org/10.5539/jsd.v6n10p1

13. I. Nhapi, A. J. Nshimiyimana, U. G. Wali, **F. O. K. Anyemedu**, J. J. Kashaigili (2012). A comparative assessment of selected raw water intake systems in Rwanda. *Water Practice & Technology*. https://doi.org/10.2166/wpt.2012.045

14. A.R. Kuffour, E. Awuah, **F.O.K. Anyemedu**, M. Strauss, D. Koné, O. Cofie (2009). Effect of using different particle sizes of sand as filter media for dewatering faecal sludge. *Desalination*. https://doi.org/10.1016/j.desal.2008.05.121