



Degrees

BSc, MSc (Ghana)

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Current Study

2019

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(GFZ)/Potsdam University

PhD Candidate, German Research centre for Geosciences

Awards

2019 - DAAD Doctoral Scholarship in Germany

2019 - Visiting Student, University of Cincinnati, USA

2018 - Brown University PhD Research Conference in the United States of America

2017 - Bergen Summer Research School, Norway

□ Profile□

Mr. Evans Manu is a Research Scientist with the groundwater division of the Water Research Institute. He obtained his bachelor's degree in Physics at the University of Cape Coast in 2008, Master's degree in Geophysics at the Kwame Nkrumah University of Science and Technology in 2012. He is currently pursuing a PhD in Hydrogeology with concentration in numerical groundwater modeling at the German Research Center for Geosciences and University of Potsdam in Germany. He is also a visiting student of the University of Cincinnati in the United States of America. Mr. Evans Manu has immense experience in geophysical methods including; electrical resistivity, electromagnetic, seismic, ground penetrating radar, magnetic and borehole logging for environmental, engineering and exploration applications in water and mineral resources systems. He also has an expertise in numerical groundwater modeling with interest in solute transport modeling, flow modeling and particle tracking modeling. With these expertise, his research is focused on basin wide hydrogeological characterization of various aquifer systems, quantifying the amount and spatial distribution of recharge to groundwater aquifers, simulation of groundwater system (both flow and solute transport) using groundwater models, and evaluating the effects of climate change and other development scenarios on groundwater resources for sustainable utilization and management. He is familiar with the hydrogeological terrain of Ghana and has authored and coauthored seven (7) publications and one book chapter in international journals with significant impacts. He has won several scholarships to attend research conferences including the Bergen Summer Research School (BSRS) in Norway, Brown University PhD Research Conference in the United States of America, First African Society of Exploration Geophysics conference in Ghana etc. He is a member of both national and international professional bodies including; the Ghana Institution of Geoscientists (GhIG), Society of Exploration Geophysicist (SEG), American Geophysical Union (AGU), and International Association of Hydrogeologist (IAH)

Active Affiliations

* International Association of Hydrogeologist (IAH)

* Society of Exploration Geophysicist (SEG)

* American Geophysical Union (AGU)

* Ghana Institution of Geoscientists

Research Interests

* Numerical Groundwater flow and contaminant transport in fractured geologic media

* Agricultural impacts on groundwater quality and quantity

* Surface water groundwater interaction

* Hydro geophysical characterization of aquifers in hard rock environment.

*Hydro chemical characterization of water resources

Current Research

* Hydro-chemical appraisal of groundwater resources in the Brong Ahafo Region of Ghana.

* Evaluation of major Factors affecting groundwater chemistry in a heterogeneous geological environment: A case study of the Brong Ahafo Region of Ghana.

* Groundwater-Flow Assessment under Steady State condition in the Upper West Region of Ghana.

* Assessment of groundwater recharge and surfacewater-groundwater interaction in the Pra river basin

* Integrated assessment of groundwater resources for sustainable management using numerical modelling in the Birim sub-catchment of the Pra river basin, Ghana.

* Application of 2D-Electrical Resistivity Tomography in delineating groundwater potential zones: Case study from the Voltaian Super Group of Ghana

List of Publications

Book Chapter

* Agyekum, W. A., Duah, A. A., Okrah, C. and **Manu, E.** (2017) groundwater recharge studies and trends in the Lower Volta River Basin, Ghana, Chapter 6, pp. 117-133. In: Ntiemoa-Baidoo, Y., Ampomah, B. Y. and Ofori, E. A. (eds). (2017) Dams, Development and Downstream Communities: Implications for Re-optimising the Operations of the Akosombo and Kpong Dams in Ghana. Digibooks Gh. Ltd., Tema, Ghana.

Refereed Journal papers

1. PA Mainoo, **E Manu**, SM Yidana, WA Agyekum, T Stigter, AA Duah, Kwasi Preko (2019). Application of 2D-Electrical resistivity tomography in delineating groundwater potential zones: Case study from the voltaian super group of Ghana. Journal of African Earth Sciences, 103618.

2. **E Manu**, WA Agyekum, AA Duah, R Tagoe, K Preko (2019). Application of vertical electrical sounding for groundwater exploration of Cape Coast municipality in the Central Region of Ghana *Arabian Journal of Geosciences* 12 (6), 196.

3. **Manu E.**, Agyekum W.A., Duah A. A, Mainoo P.A., Okrah C, Van-Dycke S Asare (2016). Improving Access to Potable Water Supply using Integrated Geophysical Approach in a Rural Setting of Eastern Ghana

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Elixir Environ. & Forestry 95 (2016) 40714-40719

4. Jonas N. Sikah A. Acheampong Aning, Sylvester K. Danuor, **Evans Manu**, Collins Okrah, 2016. Groundwater Exploration using 1D and 2D Electrical Resistivity Methods. *Journal of Environment and Earth Science*

www.iiste.org

ISSN 2224-3216 (Paper) ISSN 2225-0948

(Online) Vol.6, No.7, 2016.

5. Robert Anachana, Rignald Mensah, Aboagye Menyeh, **Evans Manu**, and Collins Okrah. (2015). Electromagnetic Method and Vertical Electrical Soundings for Groundwater potential Assessment of Kintampo North Municipality of Ghana.

Journal of Environment and Earth

Science, ISSN 2224-3216, Vol.5, No.12.

6. **Manu E.**, Preko K, and Wemegah D.D (2013). Estimation of Water Table Depths and Local Groundwater Flow Pattern using the Ground Penetrating Radar.

International Journal of

Scientific and Research Publication

. Vol.4, Issue 8, ISSN 2250-3153

7. **Manu E.**, Preko K, and Wemegah D.D (2012). Application of Ground Penetrating Radar in delineating zones of Gold Mineralization at the Subenso-North Concession of Newmont

Ghana Gold limited.

International Journal of Scientific and Research Publication

. Vol.3,

Issue 5, ISSN 2250-3153,

Conference Papers

* **Manu E**, Agyekum W. A, Duah A. A, mainoo P.A and Yidana S M, 2018. Graduate Research Collaboration with the Water Research Institute to provide Potable Water Supply to Selected Communities, AGU Fall Meeting 2018, paper no. ED51H-0651.

* **Manu E**, Agyekum W. A, Duah A. A, mainoo P.A and Yidana S M, 2018. Application of 2D-Electrical Resistivity Tomography in Delineating Groundwater Potential Zones: Case Study from the Voltaian Super Group of Ghana, West Africa. AGU Fall Meeting 2018, paper no. NS31C-1272

* Patrick A. Mainoo, Anthony A. Duah, William A. Agyekum, **Evans Manu** and Akwasi Preko, Aboagye A. Menyeh: Delineating sources for sustainable groundwater supply in the savannah region of Ghana using integrated geophysical approach. (*Conference paper Ghana Institution of Engineers* , June 2015).

* **Evans Manu**: Trends in Groundwater exploration: New methods and case studies: (2nd

African Geosciences Student Conference, Kumasi, Ghana May 2014)