

Justice Sarkodie-Kyeremeh

Department of Petroleum Engineering/ PRRC

New Mexico Institute of Mining and Technology

801 Leroy Place, Socorro, NM 87801

[Phone: 575-418-1165](tel:575-418-1165)

[Email:justice.sarkodiekyeremeh@student.nmt.edu](mailto:justice.sarkodiekyeremeh@student.nmt.edu)

RESEARCH INTEREST

I am interested in researching into challenges in the area of Carbon Capture and Storage, Reservoir Geomechanics, Enhanced Oil Recovery and Production Optimization.

EDUCATION

Name of Program	Name of Institution	Date
PhD. Petroleum Engineering	New Mexico Institute of Mining and Technology	Jan. 2021 to date
MSc Oil and Gas Engineering	Robert Gordon University, UK	Sep. 2012 to Jun. 2014
BSc Petroleum Engineering	Kwame Nkrumah University of Science and Technology, Kumasi, Ghana	Aug. 2005 to Jun. 2009
General Science	St. James Seminary and Senior Secondary School, Sunyani, Ghana	Sep. 2001 to Jul. 2004

PROFESSIONAL EXPERIENCE

Name of Institution	Responsibility	Date
New Mexico Institute of Mining and Technology, Socorro. (Research Assistant)	Working on CarbonSAFE project to estimate storage capacity.	Jan. 2021 to date
University of Energy and Natural Resources, Sunyani. (Lecturer)	Lecturing in undergraduate Energy and Petroleum Engineering courses and supervising undergraduate projects.	Jan. 2016 to Dec. 2020
All Nations University College, Koforidua. (Lecturer)	Lecturing in undergraduate Oil and Gas Engineering courses and supervising undergraduate projects.	Sep. 2014 to Dec. 2015
ASA Recruitment Agency, Aberdeen. (Home Support Worker)	Assisting clients in day to day activities, such as personal care and meal preparation.	Jul. 2014 to August 2014
Ministry of Energy and Petroleum, Accra. (Assistant Petroleum Engineer)	Updating the Director of the Petroleum Department on drilling activities in Ghana.	Sep. 2010 to Sep. 2012
Ministry of Energy and Petroleum, Accra. (National Service)	Updating the Director of the Petroleum Department on drilling activities in Ghana.	Oct. 2009 to Aug. 2010
Good News Baptist Junior High School, Sunyani (Voluntary teaching at a former school)	Teaching General Science to Junior High School students and preparing them for their West African Examination Council Exams.	Jun.2009 to Oct. 2009
National Youth Authority, Ghana (Voluntary Work)	Organizing Tuberculosis and HIV awareness campaigns.	Jul. 2004 to Aug. 2005

PROFESSIONAL AFFILIATIONS

Name of Organization	Member Status	Date
Society of Petroleum Engineers. International	Student Member	2012 to 2014
Society of Petroleum Engineers. Ghana	Professional Member	2014 to Date
Ghana Institution of Engineering	Professional Member	2019 to Date

CONTINUOUS PROFESSIONAL DEVELOPMENT

Name of Conference/Workshop/Conference	Venue	Date	Theme
Workshop on Good Assessment	Sheila's Lodge, Sunyani	16 – 17 Jan. 2019	Good Assessment Practices in Higher Education
Workshop on Curriculum Development	University of Energy and Natural Resources, Sunyani	27 – 28 Sep. 2018	Capacity Building in Curriculum Development
Ghana Institution of Engineering Conference	Eusbett Hotel, Sunyani	27 – 31 Mar. 2017	Ghana's Natural Resources and Sustainable Development – The Role of the Engineer.
SPE Conference	All Nations University College, Koforidua	28 – 29 Apr. 2016	Capacity Building in Ghana's Oil Industry' The role of Tertiary Education

SPE Well Integrity Workshop	Holiday Inn Hotel, Accra	28 – 29 Apr. 2015	Understanding the Risk of Well Integrity in a Diverse Environment.
SPE Offshore Europe Conference, Aberdeen.	Aberdeen Exhibition & Conference Center, Aberdeen	3-6 Sep. 2013	Resourcing for Growth' A Practical Introduction to Subsea targets'.
UK SPE ICoTA European Well Intervention Conference, Aberdeen.	Aberdeen Exhibition & Conference Center, Aberdeen	13 – 15, Nov. 2012	Delivering More for Less' An effective well data management system to monitor and report well integrity performance.

INTERNSHIPS/TRAINING

Training at the National Petroleum Directorate(NDP), Stavanger, Norway – Sep. to Oct. 2011

I was trained in various aspects of the petroleum industry especially in policy making and regulations. I was giving lectures on:

- Exploration, development and operation
- Seismic acquisition and mapping
- Legal framework for good resource management
- Data collection and reporting
- Petroleum production forecast
- Petroleum Economic forecasts
- Fiscal metering
- Development of HSE regulation
- Emergency preparedness / contingency planning
- Reporting of incidents and accidents
- Audit methodology

Internship at the Ghana National Petroleum Corporation – July to August 2007

I was giving lectures on oil well drilling, production technologies, well log interpretation and formation evaluation.

DISSERTATION AND RESEARCH PROJECTS

MSc Thesis - Cement Slurry Design to Control Annular Gas Migration after Cement Placement in a Gas Bearing Formation

Robert Gordon University, UK – April 2014.

- To identify the major causes of the problem, understanding the nature of the problem and its consequences on well integrity and well productivity.
- To analyze and evaluate industry's best practices for dealing with this problem and identify the limitations of such practices.
- To Design alternative slurry as a long term solution to this problem.
- To test slurry to determine gas migration potential

Kinell Field Development – Robert Gordon University, UK, Apr. 2013

Drawing on all my studies and experience and using provided information, My task was to

- To make a business case for the development of the project.
- To outline the main considerations, assumptions and constraints of the project
- To define the project objectives, the project scope and describe deliverables, targets, dependencies and resource requirements.
- To do a risk assessment of the project and project plan, identifying the controls required to minimize or eliminate the risks, including an outline of any potential environmental problems that may be relevant.

Well Planning Project – Robert Gordon University, UK, Dec. 2012

From a given data, I was to:

- To select casing setting depths.
- To determine the pore and fracture pressures by plotting a graph of EMW (equivalent mud weights, ppg) and well depths.
- To design a mud program for the drilling operation
- To determine the mud pit capacity required on the rig
- To determine the required size of the BOP to drill some sections of the well
- To design a proposal for the down hole well completion

New offshore Alba Field Development – Robert Gordon University, UK, Nov. 2012

•My task was to prepare an outline of the options available for development of the field and to recommend the best development options based not only on development cost, but also taking into account other important factors that affect the success of the project.

Undergraduate Project – An Environmental Impact Assessment of the Jubilee Field of Ghana.

Kwame Nkrumah University of Science and Technology, Ghana – Apr. 2009

- To identify impact of the proposed project on the offshore and onshore environment
- To assess the impact of the project on the environment and the economic life of the people in the catchment area
- To prescribe mitigation measures for all the identified impacts associated with the project.

PUBLICATIONS

1. Morgan, A., Akanji, L., Udoh, T., Mohammed, S., Anumah, P., and **Sarkodie-Kyeremeh, J.**, 2020. Fractional Flow Behaviour and Transport Mechanisms During Low salinity and Protein Enzyme Biosurfactant EOR Flooding. Society of Petroleum Engineers. doi:10.2118/203600-MS.
2. Ahedor, M. K.-N., Anumah, P., and **Sarkodie-Kyeremeh, J.**, 2020. Post-Drill Pore Pressure and Fracture Gradient Analyses of Y-Field in the Offshore Tano Basin of Ghana. Society of Petroleum Engineers. doi:10.2118/203659-MS.
3. Morgan, A., Akanji, L., Udoh, T., Mohammed, S., Aggrey Nkrumah, W. and **Sarkodie-Kyeremeh, J.**, 2020. Experimental Determination of Protein Enzyme Bio-Surfactant Properties for Enhanced Oil Recovery. In SPE Nigeria Annual International Conference and Exhibition. Society of Petroleum Engineers.
4. Mohammed, S., Nyantakyi, E. K., Morgan, A., Anumah, P., and **Sarkodie-Kyeremeh, J.**, 2020. Use of relative extra citation counts and uncited publications to enhance the discriminatory power of the h-index. *Scientometrics*, pp. 1-19. doi: 10.1007/s11192-020-03777-y.
5. Anumah, P., Mohammed, S., **Sarkodie-Kyeremeh, J.**, Aggrey, W. N., and Morgan, A. 2019. Petrophysical Evaluation of the Reservoir in the K - Field, Offshore Ghana. In SPE Nigeria Annual International Conference and Exhibition. Society of Petroleum Engineers. doi:10.2118/198796-MS.
6. Mohammed, S., Anumah, P., **Sarkodie-Kyeremeh, J.**, Morgan, A., and Acheaw, E. 2019. Analysis of Boundary-Dominated Gas Well Production Data. In SPE Nigeria Annual International Conference and Exhibition Society of Petroleum Engineers. doi:10.2118/198732-MS.

REFERENCES

<p>Ing. Dr. Francis Attiogbe Head, Department of Energy and Petroleum Engineering University of Energy and Natural Resources Email: francis.attiogbe@uenr.edu u.gh</p>	<p>Kenneth D. MacDonald Energy Center, School of Engineering, Robert Gordon University. Email: kdmac37@yahoo.com</p>	<p>Prof. Emmanuel Opuni- Frimpong Former Pro-Vice- chancellor, University of Energy and Natural Resources Email: emmanuel.opuni- frimpong@uenr.edu.gh</p>
--	--	---