

**Name: Eng. Kingsley Amadi****Rank: Senior Instructor - Petroleum Engineering**

Personal Information

Nationality:	British
AU Joining Date:	03 Oct 2016
E-Mail Address:	k.amadi@au.edu.kw

Professional Information

Education:	<i>Qualification : Doctorate in Engineering (PhD)</i> Major : Chemical process and Energy Engineering University : Robert Gordon University, Aberdeen UK. Year : 2023 /2024 <i>Qualification: Master of Science in Engineering</i> Major: Drilling and Well Engineering University: Robert Gordon University, Aberdeen UK. Year: 2010 /2011 <i>Qualification: Bachelor of Engineering</i> Major: Petroleum Engineering University: University of Port Harcourt. Rivers State, Nigeria. Year: 2001/2002
Specialization:	Energy and Environmental Engineering Oil and Gas Drilling and Production Wellbore positioning and Borehole survey accuracy Directional Drilling & Measurement while Drilling Drilling automation and Digitalization
Current Academic Position:	Senior Instructor - Petroleum Engineering
Current Professional Positions:	Member Society of Petroleum Engineer (SPE) Member Energy Institute UK (MEI)
Previous Administrative Position Held:	NA

Previous Academic Positions Held:	September 2020 - Instructor, Petroleum Engineering, College of Engineering, Australian University
Fellowships And Honors:	NA
Teaching Experience:	Senior Instructor – Petroleum Engineering Australian University, Kuwait Mishref, Kuwait June 2021 – Till Present Instructor of Industrial Practice – Petroleum Engineering Australian University Mishref, Kuwait. Oct. 2016 – May 2021 Software Trainer for Field Engineer – BHI Training & Development Baker Hughes INTEQ, Port-Harcourt, Nigeria. April 2002 – Dec 2004
Industrial And Technical Experience:	Senior Drilling Engineer Schlumberger (D&M) Luanda Angola Mar 2014 – Aug 2016 Directional Drilling supervisor Schlumberger (D&M) Aberdeen UK Jan 2010 – Feb 2014 Drilling Engineer ExxonMobil Producing Nigeria, Lagos Nigeria Jan 2005 – July 2007 Well planner & Drilling Engineer Baker Hughes INTEQ Port-Harcourt Nigeria March 2002 – Dec 2004
Research Interest:	Artificial intelligence and machine learning application to energy industry. Well completion design and Upstream production processes. Bottom-hole Assembly modeling and optimization Drilling Automation and digitalization Eco-solution to drilling fluid optimization Geomechanics and Geothermal Drilling Application, Directional drilling and borehole survey management
Research Grants:	Principal Investigator – AU Research Project Number: (IRC-2022/2023-COE-PE-PR07) Total cost 1200KD
Research and Publications including Journal and Books:	1. Amadi, K.W, Iyalla,I.(2024) Development of drilling optimization models for autonomous rotary drilling systems. International Journal of research and scientific innovation. IJRSI Vol. XI Issue VII July 2024 2. Amadi, K.W, Iyalla, I., Prahbu, R., Alsaba, M., Waly, M. (2023) Development of Predictive Optimization Model for Autonomous Rotary Drilling System Using Machine Learning Approach. Journal of Petroleum Exploration and Production Technology. 3. Malhas, R.N and Amadi, K.W (2023) Oil Removal from Polluted Seawater using Carbon Avocado Peel as Bio-Absorbent Published in European Journal of Engineering and Technology Research Volume 8, 4. Amieibibama J, Amadi, K.W, (2021) Modeling single-phase gas flow undergoing phase change. Journal of Experiments in Fluids.
Paper Presentations at Professional Conferences:	1. BM Biltayib, R Elgaddafi, K Amadi, RN Malhas, S Damrah, SA Balhasan (2025); Novel Viscometer Design for Investigation of the Rheological Properties of Drilling Fluid at Low and High Shear Rate Conditions. SPE NAICE Nigerian Annual International Conference and Exhibition, Lagos,Nigeria. 4-6 Aug 2025 2. R,M Elgaddafi, K Amadi, BM Biltayib, MT Al Saba, M Omar, A Dashti, (2025) Towards Autonomous Rotary Drilling System: A Robust Rate of Penetration Model for Drilling Operation Using Artificial Intelligence. SPE EOR Conference at Oil and Gas West Asia, Oman. D011S012R002

3. **Amadi, K.W**, Elgaddafi1, R.M., AlAli, M., A., Dashti, A., M., (2024); Reconstructing Missing And Non-recorded Well Log Data Using Machine Learning Techniques. SPE-223268-MS presented at the 2024 Mediterranean Offshore Conference (MOC) Alexandria Egypt Oct 20-22, 2024.
4. **Amadi, K.W** Alsaba, M., Iyalla, (2024); AI-Driven Green Optimization in Well Construction: Carbon Emission Management through Technical limit Performance Benchmarking. 2024 Gas & Oil Technology Showcase and Conference (GOTECH) Dubai UAE. 5-7 May 2024.
5. **Amadi, K.W** Alsaba, M.T, Iyalla, Farhat, M.H., Bitayib, B.M., Ugoyah, J. (2024) Enhancing PDC Bit Performance Analysis Through Reverse Engineering and Finite Element Methods in Forensic Study. 2024 SPE NAICE Nigerian Annual International Conference and Exhibition, Lagos, Nigeria. 5-7 August 2024.
6. **Amadi, K.W** Alsaba, M., Iyalla, (2024); AI-Driven Green Optimization in Well Construction: Carbon Emission Management through Technical limit Performance Benchmarking. 2024 Gas & Oil Technology Showcase and Conference (GOTECH) Dubai UAE. 5-7 May 2024.
7. **Amadi, K.W** Alsaba, M., Iyalla,I.,Prahbu,R., Elgaddafi1, R.M.,(2023); Machine Learning Techniques for Real time Prediction of Essential Rock Properties Whilst Drilling. 2023. SPE NAICE Nigerian Annual International Conference and Exhibition, Lagos, Nigeria.31-3 August 2023.
8. Elgaddafi1, R.M, Ahmed, R., Salehi, S., Alsaba, M.T.,Biltayib, B.M, Ikeokwu, C., and **Amadi, K.W (2023)**; Modelling Two-Phase Flow in Vertical and Deviated Wellbores Using Machine Learning Method. 2023 SPE NAICE Nigerian Annual International Conference and Exhibition, Lagos, Nigeria. 31July-3 Aug. 2023
9. Elgaddafi1,R.M., Al Saba1, M., Almarshad, A., and **Amadi. K.W.**, (2023); The Application of Recycled Auto-tires Rubber as An Effective Drilling Fluid Additive: Towards A Sustainable Oil and Gas Industry. 2023 SPE/IADC Middle East Drilling Technology Conference and Exhibition, Abu Dhabi, UAE.23-25 May 2023.
10. **Amadi,K.W** Iyalla,I., Alsaba, M., Elgaddafi., Waly, M.,2022); Investigation of the Effect of Mud Lubricant on Drilling Mechanics. 2022 MedGU Annual Meeting and Conference, Marrakech 27-31st – November 2022.
11. **Amadi,K.W** Iyalla,I., Alsaba, M., Prahbu,R., Waly, M.,(2022); Continuous Dynamic Drill-off Test Whilst Drilling Using Reinforcement Learning in Autonomous Rotary Drilling System. 2022 ADIPEC Technical Conference & Exhibition, Abu Dhabi. October 31st – November 3rd
12. **Amadi,K.W** I. Iyalla,I Prahbu,R.,(2021) Modelling and Predicting Performance of Autonomous Rotary Drilling System Using Machine Learning Techniques. 2021 NAICE Nigerian Annual International Conference and Exhibition, Lagos, Nigeria.2-6 August 2021.
13. Adetifa, A., Iyalla,I., **Amadi,K.W** (2021); Comparative Evaluation of Artificial Intelligence Models for Drilling Rate of Penetration Prediction. Paper presented in NAICE Nigerian Annual International Conference and Exhibition, Lagos, Nigeria.4-6 August 2021.
14. **K.w. Amadi**, I. Iyalla, Y.Liu, M.Alsaba, D.Kuten (2021); Evaluation of Derived Controllable Variables for Predicting ROP using Artificial Intelligence in Autonomous Downhole Rotary Drilling System 2021 SPE/IADC Middle East Drilling Technology Conference and Ex, Abu Dhabi, UAE.25-27 May 2021.

	15. K.Amadi, M. Waly and M.Alsaba (2018); Improving Deepwater Drilling Performance Using Automated Operating Parameters Generated Using Artificial Intelligence. 2018 ATS&E Technical Program to be held in Dhahran EXPO, Dammam, Saudi Arabia, and scheduled 23-26 April 2018. 16. K.Amadi, M.Alsaba, I.Iyalla, M.F. Al Dushaishi, Al-Hameedi, H. Alkinani(2018); Empirical studies of the effectiveness of Bio-enhancers (food waste products) as suitable additives in environmentally friendly drilling fluid system. AADC Fluid conference Taking place in 10 – 11th April 2018 Houston Texas. 17. M.T. AlSaba, K.W Amadi, K.O. Al-Hadramy, M.F. Al Dushaishi, A. AlHameedi, H.Alkinani,(2018) Experimental investigation of Biodegradable Environmentally Friendly Drilling Fluid Additives Generated from Waste. SPE International Conference and Exhibition on Health safety Security Environment and Social responsibility. Taking place 16-18 April 2018 Abu-Dhabi UAE. 18. Amadi, K.,W. and Iyalla, I., (2012): Application of Mechanical Specific Energy Techniques in Reducing Drilling Cost in Deepwater Development. SPE Deepwater Drilling and Completion conference, USA, June 2012 19. Cannon, C., Amadi, K., and Kay, I., (2007): Supporting Deployment of New Technology in Developing Oil and Gas Provinces from a centralized operations support Centre. SPE Technical conference & exhibition, California, USA. November 2007
College Service including committee Membership	NA
National Service:	NA
College Committees:	PBL Committee Research & Faculty Development Committee