

JIMOH, MONSURAT OMOLOLA (PhD)
Department of Chemical Engineering,
P.M.B. 4494, Osun State University, Osogbo.
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PROFESSIONAL SUMMARY

Motivated researcher with expertise in material synthesis, modification, and characterization for sustainable energy and environmental applications. Skilled in interpreting complex instrumental data and presenting findings clearly. Successful grant writer with a strong track record of securing competitive funding. Proficient in independent and collaborative work, even in high-pressure environments. Enthusiast in Data Science and Artificial Intelligence with excellent communication skills and adaptability to diverse research cultures. Punctual and deadline driven.

ONLINE PRESENCE

<https://scholar.google.com/citations?hl=en&user=FBvuXGIAAAAJ>

<https://orcid.org/0000-0001-5418-5301>

<https://www.scopus.com/authid/detail.uri?authorId=56764198400>

<https://www.linkedin.com/in/monsurat-omolola-jimoh-phd-790408a3/>

<https://github.com/MonsuratJimoh>

<https://coursera.org/verify/professional-cert/3YWE42567FZY>

EDUCATION

Certificate of Completion (Magna Cum Laude)

Technology for Social Change and Development Initiative (Tech4Dev)

Aug 2022 – March 2023

Women Techsters Fellowship, Class '23

Data Science and Artificial Intelligence learning track

Ph.D., Chemical Engineering (83 %)

2015 - 2021

Ladoke Akintola University of Technology, Ogbomosho

Major: Material Engineering; Drilling Engineering and Technology

Dissertation: Development of Enhanced Water-based Drilling Fluid from
Selected Local Clay Deposits and Natural Polymers

Supervisors: Professor Salawudeen, Dr.Arinkoola and Professor Daramola

Master of Technology, Chemical Engineering (66 %)

2012- 2015

Ladoke Akintola University of Technology, Ogbomosho

Major: Material Engineering, Separation process (adsorption)
Dissertation: Adsorptive bleaching of Vegetable oil using alkaline activated clays
Supervisors: Dr. T.O. Salawudeen, Dr. A.O. Arinkoola

Bachelor of Technology (Hons), Chemical Engineering 2003 –2008
(2nd class upper division)
Ladoke Akintola University of Technology, Ogbomoso

IBM Data Science with Python (Professional Certificate, 92%) 2023

RESEARCH INTERESTS

- Material (bio and nano materials) synthesis, development, modification and characterization for application in sustainable energy and environment
- Waste valorization
- Renewable and clean energy technologies
- Drilling Technology
- Environmental Management
- Heterogeneous Catalysis
- Biomass conversion, wastes valorization
- Clay minerals and their various applications
- Data Science and Machine Learning

GRANTS AND AWARDS

- 2025 AGNES Junior Researcher Grant 2026 (\$1157)
- NRF/Sasol Postdoctoral fellowship grant, South Africa(SASPD22081550928) 2024-2026(\$33000)
- Women Techsters Fellowship, class of '23 (Data Science / AI learning track) 2022 (\$2500)
Tech4Dev in association with Microsoft, IsDB and FinTech
- Co-investigator - National Research Fund (NRF), NigeriaNRF/SETI/NRT/00066 2020 (\$80,430)
- The Clay Mineral Society (Chantilly, USA) Student Travel Grant 2018 (\$1490)
- Petroleum Technology Development Trust Fund, PhD Local Scholarship, 2017 (\$4000)
- African German Network of Excellence in Science (AGNES) Mobility 2017 (\$2100)
Grant for Junior Researchers, Cape Town
- The Clay Mineral Society (Chantilly, USA) Student Research Grant 2017 (\$1830)
(post graduate students)
- The Clay Mineral Society (Chantilly, USA) Student Research Grant 2016 (\$500)
(post graduate students)
- Co-investigator, Tertiary Education Trust Fund (Tetfund) Research 2015 (\$5300)
Grant, LAUTECH, Nigeria
- Co-investigator, LAUTECH Research and Consultancy, Ogbomoso 2013 (\$2300)

Conferences, Professional and Developmental courses/Workshop Attended

- i. Renewable Energy storage workshop and symposium, RESWS 1-3 October, 2025, University of Pretoria **(Participant)**
- ii. Chemical Engineering Symposium, Department of Chemical Engineering, University of Pretoria, 28-29, August, 2025 **(Presenter)**.
- iii. Chemical Engineering Department, Mini Symposium. University of Pretoria, South Africa. December 9, 2024 **(Presenter)**
- iv. AIP-TWAS webinar on “Predatory Academic Practices: Regional Perspective and Learning (Global)”, December 14, 2021 **(Participant)**
- v. 5th International Conference on Engineering for Sustainable World ICESW. Department of Mechanical Engineering, Covenant University, Ota. November 29-30, 2021 **(Presenter)**.
- vi. 2nd International Conference on Engineering and Environmental Sciences ICEES: Re-thinking Engineering and Technology for Environmental Sustainability in the face of Global Pandemic. Faculties of Engineering and Environmental Sciences, Osun State University. November 23-25, 2021 **(Presenter)**.
- vii. 6th General Assembly and International Conference of the Organization of Women in Science for the Developing World (OWSD): Women, Science and Development, Virtual conference. November 8-19, 2021 **(Participant)**.
- viii. South African Chemical Engineers Congress (SACEC): Entering the Anthropocene. School of Chemical and Metallurgical Engineering, University of Witwatersrand, South Africa. Virtual Conference, September 20-22, 2021 **(Presenter)**
- ix. Humboldt Kolleg International Conference, Ladok Akintola University of Technology, June 29 - July 2nd, 2021 **(Presenter)**
- x. Online Seminar: Improving Academic Writing Skills in Publishing High Impact Journal, Department of Mechanical and Manufacturing, Faculty of Engineering and Laboratory of Biocomposite Engineering, Institute of Tropical Forestry and Forest product, Universiti Putra, Malaysia. July 11, 2020 **(Participant)**
- xi. 3rd International Conference on Engineering for a Sustainable World (ICESW), Department of Mechanical Engineering, College of Engineering, Covenant University, Ota, Nigeria, July 3-8, 2019 **(Presenter)**

- xii. 55th Annual Conference of the Clay Mineral Society, University of Illinois, Champaign-Urbana, Illinois, USA, June 11- 14, 2018 **(Presenter)**.
- xiii. Humboldt Kolleg International Conference, Federal University of Technology, Akure, April 2 – 4, 2017. **(Presenter)**
- xiv. 1st International Science Conference, Faculty of Science, Federal University Oye-Ekiti, June 21-22, 2016. **(Presenter)**
- xv. 4th International Conference on Engineering and Technological Research, LAUTECH, March 22-24, 2016 **(Participant)**
- xvi. 3rd International Conference on Engineering and Technological Research, LAUTECH, August 5-7, 2014 **(Presenter)**
- xvii. 2nd International Conference on Engineering and Technological Research, LAUTECH, March 26 -28, 2013 **(Participant)**
- xviii. A-3 Day Mandatory Continuing Professional Education Course for Prospective Corporate Member of the Nigerian Society of Engineers, 2013 **(Participant)**
- xix. A week Training on the use of Skill'G' Micro Science Kits, Skill 'G' Nigeria Limited, 2010 **(Trainee)**

SKILLS

- Proficiency in English (oral and written)
- Proficiency in analytical and instrumentation (TGA, DSC, XRD, FTIR, SEM, EDX, UV-Sis, AAS, GC-MS, DSA)
- Software: Advanced Microsoft Excel, Python (numpy, pandas, matplotlib, seaborn, Scikitlearn), Microsoft Power BI,SQL
- Kinetic and thermodynamic modeling
- Machine learning
- Experimental design/Statistical modeling (advanced statistical and Optimization tools
- Data Science and Analytics

PROFESSIONAL MEMBERSHIP/CERTIFICATION

- African Material Research Society, AMRS (AMRS649) 2025 - Present
- Women Techster Fellow Alumni (Tech4Dev) 2023- Present
- International Association of Advanced Materials IAAM (518423422438) 2022 - Present

- Organization for Women in Science for the Developing World, OWSD (12398) 2021 - Present
- Association of Professional Women Engineers of Nigeria, APWEN (APW/0001449) 2020 - Present
- Council for the Regulation of Engineering in Nigeria, COREN (R38000) 2017 - Present
- Society for Petroleum Engineers, SPE (4545865) 2015 - Present
- Nigerian Society of Engineers, NSE (35626) 2015 - Present
- The Clay Mineral Society (CMS), Chantilly, USA (302586) 2015 - Present
- International Association of Engineers, IAENG (142646) 2014 - Present

RESEARCH EXPERIENCE

Post Doctoral Researcher, Department of Chemical Engineering, University of Pretoria. South African NRF Sponsor April 2024 – March 2026
 Research Title: Development of Clay-based bimetallic oxygen carrier and catalyst for improved biomass gasification in chemical looping combustion

- Involved in grant winning proposal writing
- Synthesized nanoparticles and oxygen carriers
- Supervising Masters and ungraduated research projects
- Delivered oral presentations at the department and conferences
- Conducted various instrumental analyses using XRD, FTIR, AAS, SEM-EDX, GCMS, Particle size analyzer, TGA, Zeta analysis, UV
- Teaching of undergraduate courses
- Manuscript writing and publications

Research Associate, Chemical Engineering Department, LAUTECH 2020 – Till date
 NRF Project Title: Polymeric Modification of indigenous bitumen in the Presence of nano-additives for improved road service life

- Involved in experimental Designs and laboratory experiments
- Supervised post graduate student (Masters) research and report
- Interpreted Instrumental data analyses results
- Delivered oral presentations at department and faculty
- Worked with team of Experienced Researchers
- Other relevant duties as assigned by the Principal investigator

Doctoral Researcher, Chemical Engineering Department, LAUTECH 2015 – 2020

- Investigated the suitability of various clay samples for drilling fluid development.
- Processed and developed pre-gelatinized non-synthetic natural polymers from various agricultural wastes and underutilized biomass products.

- Synthesized caustic potash from cocoa pod husk for use as pH control agent in water-based drilling fluid
- Developed a novel API standard water-based drilling fluid using clays and bio-degradable polymers and additives locally sourced in Nigeria
- Investigated the effects of non-synthetic additives on rheological and filtration properties of drilling fluid.
- Investigated drilling fluid hydraulics
- Modeled the dynamic flow behavior of drilling fluid
- Successfully proposed and obtained research funding
- Delivered oral and poster presentations at local and international conferences
- Report writing in form of thesis and manuscript
- Published original research articles in peer reviewed journals

Visiting Doctoral Researcher, School of Chemical and Metallurgical Engineering University of Witwatersrand, Johannesburg

Oct 2017–Dec 2017

- Conducted various analytical experiments
- Participated and presented at various lunch time seminars
- Conducted various instrumental analyses using XRD, FTIR, AAS, SEM-EDX, GCMS, Rheometer, Particle size analyzer, TGA
- Report writing in form of manuscript

Research Assistant, Ladoke Akintola University of Technology (Doctoral levels)

2015 – 2017

- Supervised dozens of undergraduate research projects
- Delivered multiple oral presentations at department and faculty Seminars
- Learned statistical analysis and enhanced my use of excel for data analysis graphical Designs

Research Assistant, Ladoke Akintola University of Technology (Master levels- Tetfund Assisted Research grant)

2013 – 2014

- Performed adsorption experiments
- Conduct research on wastewater treatment
- Utilized statistical tools to analyze experimental data

TEACHING EXPERIENCE

Lecturer, (full-time) Osun State University

Oct 2023 – Till date

- Delivered lectures – Chemical Engineering courses
- Delivered lectures – faculty courses
- Supervision of undergraduate research projects
- Served as examination coordinator
- Involved in examination conduct and grading of papers

- Other assignments as assigned by the head of Department

Tutor (Part-time), Chemistry Department, University of Pretoria **Feb 2025-Till date**

- Tutor CHM 171 practical and tutorial
- Coordinate exam and test for CHM 171
- Involved in marking and assessment of students tests and assignment

Tutor (Part-time), Chemical Engineering Department, University of Pretoria **July 2024- Till date**

- Co-Instructor, CSS 423 (Sustainable Chemical Engineering Practices)
- Involved in examination conduct and grading of papers
- Other assignments as assigned by the postdoc host

Lecturer (Part-time), Pan African University of Life and Earth Science (PAULESI) **May 2022- Jan 2023**

- Instructor, Environmental impact of Petroleum Exploration and Exploitation (Master's class)
- Instructor, Mining Induced Environmental Impact Assessment (Master's class)
- Involved in examination conduct and grading of papers

Lecturer (Adjunct), Federal University of Technology, Akure **Sept 2021 – May 2022**

- Planned and facilitated introductory courses in Chemical Engineering
- Counseled undergraduate students on courses and general academic performance
- Involved in examination conduct and grading of papers

Teaching Assistant, Ladoke Akintola University of Technology (Master and Doctoral levels) **2015 – 2017**

- Delivered undergraduate lecture on Drilling Technology and Environmental Management
- Tutored some undergraduate courses in Chemical Engineering
- Involved in examination conduct and paper grading

TECHNOLOGY EXPERIENCE, Women Techsters Fellowship class of 2023 **2022-2023**
Tech4Dev

- Data Science
- Machine learning
- Artificial Intelligence Engineering

PUBLICATIONS

Thesis/Dessertation

- Jimoh M.O. (2021). Development of Enhanced Water-based drilling fluid from selected local clay deposits and natural polymers. Published PhD Dissertation, Chemical Engineering Department, Ladoke Akintola University of Technology, Ogbomosho, Nigeria.

- Jimoh M.O. (2015). Development of Alkaline Activated Clays for Adsorptive Bleaching of Palm Kernel Oil. Published M.Tech Dissertation, Chemical Engineering Department Ladoke Akintola University of Technology, Ogbomosho, Nigeria.
- Ibrahim M.O. (2008). Study of Aerosol Haze Dispersion in South Eastern Lagos using Industrial Source Complex Model. B.Tech. Dissertation, Ladoke Akintola University of Technology, Ogbomosho, Nigeria

Refereed Journal Articles

- M.O. Jimoh**, T.O. Salawudeen and A.O. Arinkoola (2026). Influence of polymeric modification on conventional properties of bitumen sourced from Agbabu and Loda in Nigeria: A statistical approach. UNIOSUN Journal of Engineering and Environmental Sciences, 8(3):227-246. <https://journals.uniosun.edu.ng/ujees/article/view/499>
- P. S. Azeh, **M. O. Jimoh**, M. Masitha, S. A. Iwarere and M. O. Daramola. (2026). Adsorptive removal of Carbamazepine from synthetic wastewater using Moringa oleifera seed coat. South African Journal of Chemical Engineering, 55: 368-379
<https://doi.org/10.1016/j.saice.2025.11.015>
- Salawudeen T.O., Arinkoola A.O., Salam. K.K., **Jimoh M.O.** Ogunkunle S.A., Akinrinso S.D., Olufayo A.O., Ayanshola A.M., Ogunleye O.O., and Saka, A.A. (2025). *Synthesis of MWCNTs for successive polymeric and nano modification of a Nigerian bitumen, optimization using response surface methodology*. Nano-Structures & Nano-Objects, 2025. **41**: p. 101444 DOI: <https://doi.org/10.1016/j.nanoso.2025.101444>.
- Salawudeen T.O., Arinkoola A.O., Salam K.K., **Jimoh M.O.**, Olufayo A.O., Ayanshola A.M. Ogunleye O.O., Abdulkareem Ambali Saka, A.A. (2024). Durability of bitumen binder reinforced with polymer additives: Towards upgrading Nigerian local bitumen. Heliyon, 10:10 e30825, <https://doi.org/10.1016/j.heliyon.2024.e30825> .
- Arinkoola, A., Atitebi, Z.M, Abidemi, G.O., Jimoh, M. O., Salam, K. K., Alagbe, S. O., Salawudeen, T.O. (2022). Enhancement of filtration and rheological properties of water-based drilling fluid prepared using Nigerian Ohia bentonite and local additives. *Journal of Petroleum Science and Technology*, 11(4): 55-62 https://jpst.ripi.ir/article_1246.html .
- Arinkoola A.O., **Jimoh, M.O.**, Salawudeen T.O., Daramola M.O. (2022). Application of Irvingiagabonensis, Manihotesculenta and Artocarpusaltilis as rheological modifier in water-based drilling fluid. Materials Today: Proceedings, Elsevier, 65 (3):2236-2244
<https://doi.org/10.1016/j.matpr.2022.06.280>

- vii. A.O. Arinkoola, K.K. Salam, S.O. Alagbe, A.S. Afolayan, T.O. Salawudeen, **M.O. Jimoh**, I. U. Duru, O. J. Hammed and T. A. Adeosun (2021). Influence of Metakaolin and nano-clay on compressive strength and thickening time of class G oil well cement. *Songklanakarin Journal of Science and Technology*, 43 (1), 118-126.
- viii. Sadare, O.O., Ejekwu, O., Moshokoa, M.F., **Jimoh, M.O.**, Daramola, M.O. (2021). Membrane Purification Techniques for Recovery of Succinic Acid Obtained from Fermentation Broth during Bioconversion of Lignocellulosic Biomass: Current Advances and Future Perspectives. *Sustainability*, 13: 6794. <https://doi.org/10.3390/su13126794>.
- ix. Arinkoola A.O., Salam, K.K., Salawudeen, A.O., Abidemi, G.O., Hammed, J.O., **Jimoh, M.O.**, Olufayo, O.A. and Adelaitan, Y.M. (2020). Improvement of filtration properties of Nigerian Bentonite clay using locally sourced biomaterials. *LAUTECH Journal of Civil and Environmental Studies*, 5:114-130. [https://doi.org/10.36108/laujoces/0202/50\(0121\)](https://doi.org/10.36108/laujoces/0202/50(0121))
- x. E.O. Dada, I.A. Ojo, A.O. Alade, T.J. Afolabi, **M.O. Jimoh**, M.O. Dauda (2020). Biosorption of Bromo-based dyes from waste water using low cost adsorbent: A review. *Journal of Scientific Research & Reports*, 26(8): 34-56, 2020
- xi. Salawudeen T.O., Arinkoola A. O., Alade A.O., Salam K.K., Olufayo O.A., **Jimoh M.O.** and Dada E.O. (2020). Performance Characteristics of Agbabu natural Bitumen ternary nano composite with polypropylene and multiwall carbon Nanotubes. *Songklanakarin Journal of Science and Technology*, 42(6): 1-8, <https://www.thaiscience.info/Journals/Article/SONG/10992885.pdf>
- xii. **M.O. Jimoh**, T.O. Salawudeen, A.O. Arinkoola and M.O. Daramola (2020). Rheological study a new water-based drilling fluid using Ubakala clay in the presence of natural polymers. *Chemical Engineering Communications*, <https://doi.org/10.1080/00986445.2020.1774374>
- xiii. **M. O. Jimoh**, A. O. Arinkoola, T. O. Salawudeen, M. O. Daramola (2020). Rheological Evaluation of Composite Natural Polymers as Rheology Control Additive in Water-Based Drilling Fluid. *Petroleum and Coal*, 62(1) 129-141. [Petroleum & Coal journal | VÚRUP, a.s. https://vurup.sk/download/1918/1957](https://vurup.sk/download/1918/1957)
- xiv. Salawudeen, T.O., Arinkoola, A.O., Afolayan, A.S., Salam, K.K., **Jimoh, M.O.**, Dada, E.O., Duru, I.U., Adelaitan, Y.M. and Olufayo, O.A. (2019) Effect of metakaolin and nano clay on the rheology and flow characteristics of oil well class G cement slurry. *LAUTECH Journal of Civil and Environmental Studies*, 3(1):15-26.

- xv. **Jimoh, M. O.**, Salawudeen, T.O., Arinkoola, A.O, Daramola, M.O. (2019) Performance Evaluation Of Abia Clay With Natural Polymers In Water-based drilling fluid development IOP Conference Series, 1378
<https://iopscience.iop.org/article/10.1088/1742-6596/1378/2/022017/pdf>
- xvi. Arinkoola A.O., Salawudeen T.O., Salam K.K., **Jimoh M.O.**, Abidemi G.O. and Atitebi Z.M. (2019). Optimization of water-based drilling fluid using modified Nigerian bentonite and natural biopolymer: Reduced experiment and Surface response methodology. *Iranian Journal of Chemical Engineering*, 16(1): 39-53
- xvii. Arinkoola A.O., Salawudeen T.O., Salam K.K., **Jimoh M.O** and Gafar A.O. (2018). Potential Evaluation and Optimization of natural biopolymer in water-based drilling mud. *Journal of Chemical and Petroleum Engineering*, 52(1): 1-12
- xviii. Arinkoola A.O., SalamK.K.,**Jimoh, M.O.**, and Oghafua, N.O. (2016). Optimization of Process parameters for natural gas sweetening using aspen hysys and response surface methodology. *LAUTECH Journal of Engineering and Technology*, 10(2),19-22.
- xix. Salawudeen T. O., Arinkoola A. O., **Jimoh M. O.**, Salam K. K. and Ogunmola E. O. (2016). Effect of inert fibre on the performance of *B. eurycoma* as rheology and filtration control additive in waterbased drilling fluid. *International Journal of Petroleum Engineering*, 2(3):19 1-208.
- xx. Salawudeen, T. Olalekan, Alade A. Olarenwaju, Arinkoola A. Olatundeand **Jimoh M. Omolola**(2016). Potential application of oyster shell as adsorbent in vegetable oil refining. *Advances in Research*, 6(6):1-8.
- xxi. Afolabi, Tinuade J., Alade, Abass O., **JimohMonsurat O.**, and Fashola I.O. (2015). Heavy metal ions adsorption from dairy industrial wastewater using activated carbon from milk bush kernel shell. *Desalination and Water Treatment*, 1-13.
<http://www.tandfonline.com/loi/tdwt20>
- xxii. Afolabi, Tinuade J., Alade, Abass O., **Jimoh Monsurat O.**, and Fashola I.O. (2014). Removal of heavy metals from dairy industrial wastewater Using chemical coagulants. *Science Focus* 19 (1), 45- 51.

- xxiii. Salawudeen T.O., Arinkoola A.O., **Jimoh M.O.** and Akinwande B.A. (2014). Clay characterization optimization of bleaching parameters for palm kernel oil using alkaline activated clays. *Journal of Mineral and Material Characterization and Engineering*, 2, 586–597
- xxiv. Akinwande B.A., Salawudeen T.O., Arinkoola A.O., and **Jimoh M.O.** (2014). Effect of activation on clay and Carbonaceous materials in vegetable oil bleaching – State of art review. *British Journal of Applied Science and Technology*, 5(2):130-141.
- xxv. Akinwande B.A., Salawudeen T.O., Arinkoola A.O., and **Jimoh M.O.** (2014). A Suitability Assessment of Alkali Activated Clay for Application in Vegetable oil Refining. *International Journal of Engineering and Advanced Technology Studies*, 2(1):1-12.

Refereed Conference Proceedings

- i. **Jimoh Monsurat Omolola**, Arinkoola Akeem Olatunde, Salawudeen Taofeek Olalekan, Olufayo Augustina Folakemi, Bello Wasiat Omowumi, Daramola Michael Olawale (2021). Nano-based Drilling Fluids: A review. Proceedings of the 2nd International Conference on Engineering and Environmental Sciences, ICEES, Osun State University, Nigeria, November 23-25.
- ii. **Jimoh Monsurat Omolola**, Sadare O. Olawumi, Arinkoola Akeem Olatunde, Salawudeen Taofeek Olalekan, Bello Wasiat Omowumi, Daramola Michael Olawale (2021). Drilling Process and Operations: A major contributor to the Anthropocene. Proceedings of the South African Chemical Engineers Congress, SACEC, South Africa, September 20-22.
- iii. Salawudeen T. Olalekan, Arinkoola A. Olatunde, Jimoh M. Omolola, Salam K. Kolapo, Abidemi O. Gbenga, Ganzallo J. Foluke and Lawal L. Mitiyat. (2016). Effect of Achi fortified with Inert Fibre on Rheological and Filtration Properties of Beneficiated Local Clay. Proceedings of the 2016 International Science Conference, June 21-22, Faculty of Science, Federal University Oye-Ekiti. Pp 69 – 74.
- iv. Salawudeen, T.O., **Jimoh, M.O.** and Owoso O. (2014). Production of local activated clay for treatment of waste water. Proceeding of 3rd International Conference on Engineering and Technological Research, LAUTECH. August 5 – 7.

Technical Reports

- i. **Jimoh M.O.** (2017). Technical Report of the 2017 AGNES Mobility Grant for Junior Researchers. Submitted to the African German Network of Excellence in Science (AGNES), Cape Town, South Africa.
- ii. **Jimoh M. O.** (2017). Technical Report of Experience in Engineering Practices. Submitted to Council for Regulation of Engineering in Nigeria, Abuja, Nigeria.

- iii. **Jimoh M. O.** (2013). Technical Report of Experience in Engineering Practices. Submitted to the Nigeria Society of Engineers, OAU, Ile Ife, Nigeria.

Presentations & Book of Abstracts (Presenter underlined)

- i. Arinkoola A.O., **Jimoh M.O.**, Salawudeen T.O., Daramola M.O. (2021). Application of *Irvingiagabonensis*, *Manihotesculenta* and *Artocarpusaltilis* as rheological modifier in water-based drilling fluid. Presented at the 5th International Conference on Engineering for Sustainable World ICESW. Department of Mechanical Engineering, Covenant University, Ota. November 2021.
- ii. **Jimoh M. O.**, Sadare O. O., Arinkoola A. O., Salawudeen T. O., Bello W. O., Daramola M. O. (2021). Drilling Process and Operations: A major contributor to the Anthropocene. Presented at the South African Chemical Engineers Congress, SACEC, 2021. September 2021.
- iii. **Jimoh, M.O.** Arinkoola A.O., Salawudeen, A.O., and Salam, K.K. (2021). Ensuring Sustainable Innovation in Oil and Gas Exploration through the use of Local Materials as Additives in Water-based Drilling Fluid. Presented at the Humboldt Kolleg International Conference, Ladoke Akintola University of Technology, Ogbomoso, June 2021.
- iv. **Olufayo O. A.** Salawudeen T. O., Arinkoola A.O., Jimoh M. O. (2021). Rheological Characterization Of Agbabu Natural Bitumen Modified With Polypropylene and Multiwall Carbon, Presented at the Humboldt Kolleg International Conference, Ladoke Akintola University of Technology, Ogbomoso, June 2021.
- v. T.O. Salawudeen, **M. O. Jimoh**, A. O. Arinkoola and M.O. Daramola. (2018). Modification and Characterization of Nigerian Clay for improved rheology in water-based drilling fluid. Presented at the 55th Annual Conference of The Clay Mineral Society, University of Illinois, Champaign-Urbana, USA, June, 2018.
- vi. Arinkoola A. O, Salawudeen T. O., **Jimoh M. O.**, Akinwande B. A. Alade A. O., Salam K. K. and Azeez G. O. (2017). Palm kernel oil bleaching and removal of free fatty acid using alkaline-activated clays: Optimisation studies. Poster presented at Humboldt Kolleg International Conference, Federal University of Technology, Akure, April, 2017.
- vii. **Jimoh M.O. (2017)**. Development of enhanced water-based drilling fluid using Nigerian Clay and non-synthetic additives. Proposal presented at School of Chemical and Metallurgical Engineering, University of the Witwaterstrand, Johannesburg.
- viii. Salawudeen T. Olalekan, Arinkoola A. Olatunde, **Jimoh M. O.**, Salam K. Kolapo, Abidemi O. Gbenga, Ganzallo J. Foluke and Lawal L. Mitiyat. (2016). Effect of Achi fortified with Inert Fibre on Rheological and Filtration Properties of Beneficiated Local Clay. Presented at the 2016

International Science Conference, Faculty of Science, Federal University Oye-Ekiti. June 2016.

- ix. Salawudeen, T.O., **Jimoh, M.O.** and Owoso O. (2014). Production of local activated clay for treatment of waste water. Presented at the 3rd International Conference on Engineering and Technological Research, Ladoke Akintola University of Technology, Ogbomoso, August, 2014.

Book Chapter

- i. **M.O. Jimoh**, A. O. Arinkoola, T.O. Salawudeen and M.O. Daramola (2024). Environmental Challenges of Natural gas extraction and production technologies, In: Advances in natural gas: Formation, Processing and Applications: Natural gas formation and extraction. Volume 1, Chapter 4, pp 75-101, Elsevier.

COMMUNITY RESPONSIBILITIES/VOLUNTEERING

- **Convener and Speaker:** Tech Girl Drive: “Bridging the Gender gap for girls in stem”. A mandatory community project for Women Techsters Fellow at Tech4Dev. Delivered at Command Day Secondary School, Ede Osun State, 20th October, 2022.
- **Publicity Secretary:** Association of Professional Women Engineers of Nigeria (APWEN), Osogbo branch (2023-2024)
- **Publicity Secretary:** Association of Professional Women Engineers of Nigeria (APWEN), Osogbo branch (2024-Till date)
- **Invited speaker:** Carrier talk tagged ‘Operation Girls do Science, Technology, Engineering and Mathematics (STEM) for girls in upper primary schools” APWEN, Osogbo Chapter. Delivered at Adventist Grammar School, Ede, Osun State, 28 May, 2021
- **Reviewer:** British Journal of Science and Technology, American Chemical Science Journal (Science domain International), Materials Today Proceedings (Elsevier), Bioresources (Elsevier).

REFERENCES

- Professor Taofeek Olalekan Salawudeen
Professor
Chemical Engineering Department
Ladoke Akintola University of Technology, Ogbomoso
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- Professor Akeem Olatunde Arinkoola
Associate Professor

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- Dr Oyetunji Babatunde Okedere
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March, 2026



Jimoh, Monsurat Omolola (PhD)