



# MONSURU OLATUNJI DAUDA

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## EDUCATION AND ACADEMIC QUALIFICATION

### Doctor of Philosophy in Chemical Engineering.

2022–

*Louisiana State University*

Present

**Address:** Taylor Hall, 3307 Patrick F, Baton Rouge, LA 70803, USA.

**Research:** Electrochemical Processes for Sustainable Chemical Production

**Top Skills:** Electrochemical Measurements, Synchrotron-X-Ray Based Analytical Techniques, Density Functional Theory (DFT) Synthesis and Slurry Casting of Electrode Materials, Gas Chromatography–Mass Spectrometry (GC-MS), Nuclear Magnetic Resonance (NMR), Atomic Force Microscopy (AFM), Fourier-Transform Infrared Spectroscopy (FTIR), Raman Spectrometry

### Master of Science in Chemical Engineering.

2022 - 2024

*Louisiana State University*

**Address:** Taylor Hall, 3307 Patrick F, Baton Rouge, LA 70803, USA.

**Research:** Copper-Based Electrocatalysts for Electrochemical Reduction of CO<sub>2</sub> to C<sub>2</sub> Products

**Top Skills:** Electrochemical Measurements, Nanoparticle Synthesis, Electrosynthesis, Electrochemical Deposition, Gas Chromatography (GC), X-ray Diffraction (XRD), X-ray Photoelectron Spectroscopy (XPS), Electron Microscopy (SEM, TEM), Nuclear Magnetic Resonance (NMR), Four Point Probe.

### Bachelor of Technology (Hons.) in Chemical Engineering.

2014 - 2021

*Ladoke Akintola University of Technology*

**Address:** Old Oyo/ Ilorin Rd, 210214, Ogbomosho, Oyo-State, Nigeria

**Final grade:** First Class Hons

**Research:** Polysophtive Treatment of Synthetic Wastewater Using Batch and Continuous Technique

**Top Skills:** Gas and Liquid Phase Adsorption, Ultraviolet–visible spectroscopy, Statistical Package for the Social Sciences (SPSS), Design-Expert, Analytical Chemistry Techniques, MATLAB, Aspen HYSYS and Plus, Organizational and planning, and Research and analytical skills.

### A1 Comprehensive Grammar School, Iwo, Nigeria.

2008-2014

*Secondary School Certificate (WAEC/NECO)*

2014 Alumni Award for Overall Best Student

Best Student in Osun State FRSC Mathematics Competition

### Vico Hope Nursery and Primary School, Iwo, Nigeria

2002-2008

*Primary School Certificate*

## MEMBERSHIP OF PROFESSIONAL BODIES

- Sigma Xi, The Scientific Research Honor Society– Full Member
- Omicron Delta Kappa National Leadership Honor Society – Full Member
- Electrochemical Society (ECS) – Student Member
- American Chemical Society (ACS) – Student Member
- American Institute of Chemical Engineers (AIChE) – Student Member
- National Society of Black Engineers (NSBE) – Collegiate Member.
- National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) – Student Member.
- Society of Petroleum Engineers (SPE) – Student Member
- Nigerian Universities Engineering Students Association (NUESA) – Fellow Member
- Nigerian Society of Engineers (NSE) – Graduate Member

## PUBLICATIONS

### 1. FIRST AUTHOR PUBLISHED ARTICLES:

- **Dauda, M. O.**, Bello, M., Hendershot, J. C., Kingsley, N., Agbadan, I., Park, J., Tasnim, S., Oduyebo, O., Engler, A., Plaisance, C., & Flake, J. (2025). Highly Selective Electrolytic Reduction of CO<sub>2</sub> to Ethylene. *ACS Appl. Energy Mater.* 2025, 8, 13607–13619.
- **Dauda, M. O.**, Bello, M., Hendershot, J. C., Park, J., Agbadan, I., Tasnim, S., & Flake, J. (2025). (IE&EE Student Achievement Award) Strategies for Sustainable Ethylene, Ethanol, and Acetate via Electrochemical CO<sub>2</sub> Reduction. *ECS Meeting Abstracts*, MA2025-01 2186.
- **Dauda, M. O.**, Bello, M., Hendershot, J. C., Agbadan, I., Tasnim, S., Oduyebo, O., & Flake, J. (2025). Tailoring the Local Environment for Electrochemical Reduction of CO<sub>2</sub> to Ethylene. *ECS Meeting Abstracts*, OCT2025
- **Dauda, M. O.**, Hendershot, J., Bello, M., Park, J., Loaiza Orduz, A., Kizilkaya, O., Sprunger, P., Engler, A., Yao, K., Plaisance, C., & Flake, J. (2024). Activity and Selectivity in the Electrochemical Reduction of CO<sub>2</sub> at CuSn<sub>x</sub> Electrocatalysts Using a Zero-Gap Membrane Electrode Assembly. *Journal of The Electrochemical Society*.
- **Dauda, M. O.**, Hendershot, J., Bello, M., Park, J., Loaiza Orduz, A., Lombardo, N., Kizilkaya, O., Sprunger, P., Engler, A., Plaisance, C., & Flake, J. (2024). Electrochemical Reduction of CO<sub>2</sub>: A Common Acetyl Path to Ethylene, Ethanol or Acetate. *Journal of The Electrochemical Society*
- **Dauda, M. O.**, Bello, M., Hendershot, J. C., Agbadan, I., Tasnim, S., Plaisance, C., & Flake, J. C. (2023). Selective CO<sub>2</sub> Reduction to Multicarbon Products on Cu-Based Electrocatalysts in Membrane Electrode Assembly. *ECS Meeting Abstracts*, OCT2024
- **Dauda, M. O.**, Hendershot, J. C., Bello, M., Agbadan, I., Tasnim, S., Plaisance, C., & Flake, J. C. (2023). Selectivity and Durability in the Electrochemical Reduction of CO<sub>2</sub> to C<sub>2</sub> Products Using Cu-P, Cu-Sn and Cu-Se Electrocatalysts. *ECS Meeting Abstracts*, MA2024
- **Dauda M.O.**, Ajani A, Afolabi T. J, Alade A. Investigation of Adsorptive Removal of Methylene Blue from Synthetic Wastewater Using Polymeric Composite. *JOTCSA*. 2023;10(4):961-74.

### 2 CO-AUTHOR PUBLISHED ARTICLES:

- Bello, M., **Dauda, M. O.**, Hendershot, J. C., Kingsley, N., Agbadan, I., Park, J., Tasnim, S., Oduyebo, O., Engler, A., Plaisance, C., & Flake, J. (2025). Anolyte Buffering and CO Coverage Effects in the Electrochemical Reduction of CO at Cu Electrocatalysts. *ACS Appl. Energy Mater*
- Hendershot, J. C., **Dauda, M. O.**, Tasnim, S., Agbadan, I., Lombardo, N., Park, J., Bello, M., Engler, A., & Flake, J. (2025). Anion Exchange Membrane Transport and Accelerated Lifetime Testing of Membrane Electrode Assembly Cells for the Electrochemical Reduction of CO<sub>2</sub>-to-C<sub>2</sub> Products. *J. Electrochem. Soc.* 172 094509
- Flake, J., **Dauda, M. O.**, Hendershot, J. C., Bello, M., Park, J., Agbadan, I., Tasnim, S., Kennedy, E., Yao, K. & Liu, D. (2025). (Invited) Durability and Selectivity in the Electrochemical Conversion of CO<sub>2</sub>/CO to C<sub>2</sub> Products. *ECS Meeting Abstracts*, MA2025-01 2179
- Mishra, M., **Dauda, M. O.**, Flake, J. & Yao, K. (2025). Operando Surface Enhanced Raman Spectroscopy Reveals Enhanced C-C Coupling in CO<sub>2</sub>RR at Low Sn Doping of Cu Catalysts. *ECS Meeting Abstracts*, MA2025-01 2157
- Agbadan, I., Tasnim, S., **Dauda, M. O.**, Bello, M., Hendershot, J. C., Park, J., & Flake, J. (2025). Durability of Membrane Electrode Assembly Components for the Electrochemical Reduction of CO<sub>2</sub> to C<sub>2</sub> Products. *ECS Meeting Abstracts*, MA2025-01 2221
- Hendershot, J. C., **Dauda, M. O.**, Tasnim, S., Agbadan, I., Lombardo, N., Park, J., Bello, M., Engler, A., & Flake, J. (2025). Water and Potassium Transport in Anion Exchange Membranes Used for Electrochemical CO<sub>2</sub> Reduction. *ECS Meeting Abstracts*, MA2025-01 2155

- Park, J., **Dauda, M. O.**, Bello, M., & Flake, J. C. (2024). The Future of Die-to-Die Copper Interconnects and Epoxy Dielectrics. *ECS Meeting Abstracts, OCT2024*
- Bello, M., **Dauda, M. O.**, Hendershot, J. C., Park, J., Agbadan, I., Tasnim, S., & Flake, J. C. (2024). Comparative Selectivity of CO and CO<sub>2</sub> Reduction Using Cu Electrocatalysts in Zero-Gap MEA Cells. *ECS Meeting Abstracts, OCT2024*
- Bello, M., Hendershot, J. C., **Dauda, M. O.**, Park, J., & Flake, J. C. (2024). pH Effects in the Electrochemical Reduction of CO at Cu Electrocatalysts in an MEA Cell Configuration. *ECS Meeting Abstracts, MA2024*
- Flake, J. C., Bello, M., **Dauda, M. O.**, Hendershot, J. C., Gonçalves, R., Jiao, F., Yan, Y., & Yao, K. (2023). Durability of CO and CO<sub>2</sub> Electrolyzers with Copper Electrocatalysts, Gas Diffusion Electrodes, and Anion Exchange Membranes. *ECS Meeting Abstracts, MA2023-02(24)*, 1322.
- Hendershot, J. C., Bello, M., **Dauda, M. O.**, & Flake, J. C. (2023). Understanding the Role of Cu Electrocatalyst, Binder, and Membrane Interfaces in CO<sub>2</sub> Electrolyzer Durability. *ECS Meeting Abstracts, MA2023-01(26)*, 1732.
- Dada, E.O., Adeniran, P.O., **Dauda, M.O.**, Afolabi, T.J., and Alade, A.O. (2021). Application of Agricultural Waste for the Adsorption of Pharmaceutical Pollutants in Wastewater: A Review. *LAUTECH Journal of Civil and Environmental Studies*, 6(1),26-45. DOI:10.36108/laujoces/1202.60.0130
- Dada, E.O., Ojo, I.A., Alade, A.O., Afolabi, T.J., Jimoh, M.O., and **Dauda, M.O.** (2020). Biosorption of Bromo-based Dyes from Wastewater Using Low-Cost Adsorbents: A Review. *Journal of Scientific Research and Reports*, 26(8), 34-56. <https://doi.org/10.9734/jsrr/2020/v26i830294>

### 3. CONFERENCE PRESENTATION:

- Flake, J. C., **Dauda, M. O.**, Bello, M., Hendershot, J. C., Gonçalves, R., Jiao, F., Yan, Y., & Yao, K. (2023). C<sub>2</sub> product selectivity in the electrochemical reduction of CO<sub>2</sub> at CU-P, Cu-Sn and Cu-se electrocatalysts. *ACS Spring 2024 in New Orleans*.
- **Dauda M.O.**, Alade, A.O., Afolabi, T.J., Araromi, D.O., Salam, K.K., Arinkoola, A.O., Adeniji, A.T., and Atolagbe R.O. (November, 2021). Experimental Study of Adsorption of Methylene Blue Synthetic Wastewater Using Polymeric Composite as A Low-Cost Adsorbent. *2<sup>nd</sup> International Conference on Engineering and Environmental Science*.

### 4. POSTERS PRESENTATION:

- **Dauda, M.O.**, (2022). *Efficient Removal of Dyes Present in Industrial Water Effluent using a Novel Polymeric Adsorbent Composite*. LSU African in Research.
- **Dauda, M.O.**, Alade, A.O., Afolabi T. J., Adeniji, A.T., Latinwo, G.K1 & Yusuf, A.O. (2022). *Synthesis of Novel Functional Cellulose as a Low-cost Adsorbent for Methylene Blue Removal from Synthetic Wastewater*. LAUTECH LIRIDE, Poster Code: EGAT 22-011.
- Akinyemi, A.G., Ajayi, J.O., **Dauda, M.O.**, Afolabi, T. J. & Alade, A.O. (2022). *ADSORLVER: A Novel Stand-Alone Software for Processing Adsorption Experimental Data*. LAUTECH LIRIDE, Poster Code:EGAT 22-007.
- Adeniji, A.T., Alade, A.O., , Afolabi T. J., **Dauda, M.O.**, Akinkuade, K. A. & Ganiyu, S.O. (2021). *Potential of Novel Tri-composite clay in Emerging Contaminant Remediation: A Diclofenac-Na Study*. PUEDUE University Davidson Schol of Chemical Engineering

### 5. THESIS/DISSERTATION:

- **Monsuru Dauda (2024)**. “Copper-Based Electrocatalysts for Electrochemical Reduction of CO<sub>2</sub> to C<sub>2</sub> Products” Published Master of Science in Chemical Engineering Dissertation, Louisiana State University, Baton Rouge, United State.
- **Monsuru Dauda (2021)**. “Polysopitive Treatment of Methylene Blue wastewater By Batch and Continuous Technique” Unpublished B.Tech. Dissertation, Ladoke Akintola University of Technology, Ogbomoso, Nigeria
- **Monsuru Dauda (2021)**. “Design of 1.5 Mtons/Year of Gold Bar Plant from Gold Ore” Unpublished B.Tech. Dissertation, Ladoke Akintola University of Technology, Ogbomoso, Nigeria

## EXPERIENCE

### Research Assistant

Louisiana State University

2023–  
Present

- Developed Cu-based alloy electrocatalysts achieving record selectivity for C2 products (ethylene, ethanol, acetate) at industrial current densities with extended operational stability.
- Established correlation between Cu surface charge and C2 product selectivity using DFT calculations, enabling rational catalyst design for targeted products
- Innovated dual-membrane electrolyzer system solving product crossover and enabling efficient liquid product collection.
- Applied advanced characterization techniques (XPS, XRD, SEM, GC-MS) to understand catalyst dynamics and validate mechanisms.
- Optimized electrochemical systems across pH ranges developing versatile platform for multiple valuable chemicals.
- Developed direct electrochemical CO<sub>2</sub> conversion to organic carbonates for high-value chemical production from captured carbon

### Lead Research and Development Engineer (Co-op)

Encore CO<sub>2</sub>, Baton Rouge, US

2025

- Led CO<sub>2</sub> electroreduction research and process development, optimizing electrochemical systems for sustainable chemical production (formic acid, ethylene, acetic acid and ethanol).
- Developed and implement pilot-scale testing and scale-up strategies, focusing on catalyst innovation, process efficiency, and techno-economic analysis.
- Oversaw the design, modeling, and optimization of electrochemical reactors to enhance selectivity, conversion efficiency, and cost-effectiveness.
- Managed cross-functional R&D initiatives, driving intellectual property development, regulatory compliance, and commercialization efforts for CO<sub>2</sub> conversion technologies.

### Teaching Assistance

Louisiana State University

2022– 2023

- Assisted in teaching Process Design and Reactor Design Project courses.
- Provided support in grading assignments, exams, and practical sessions.
- Developed skills in assisting with laboratory experiments and practical demonstrations.
- Enhanced my understanding of process design principles and reactor design concepts through teaching and hands-on experience.

2021 - 2022

### National Youth Service Corps (N.Y.S.C)

Nigerian Content Development and Monitoring Board, NCDMB, National Headquarter, Bayelsa State, Nigeria

- Monitored and tracked progress on projects and activities executed in the Nigerian Oil and Gas Industry.
- Identified actions and processes that violated the NOGICD Act and applied measures to address and correct all such violations.
- Maximized the utilization of the country's materials, resources, goods, assets, and services.

2019 -  
2021

### Research Assistance

Bioenvironmental and Water Research Laboratory, LAUTECH, Oyo State, Nigeria

- Synthesized Silver-Gold Nanoparticles from Yam, Potato, Banana, and Cassava Peels Extract Bio-Composite.
- Conducted independent reviews of literature on the synthesis and characterization of nanoparticles from agricultural materials and designed an Adsorption Column.
- Investigated the effect of surface modification of polymeric material as a low-cost adsorbent.

### Class Instructor

Launchi Software Academy (LSA) Under-G, Ogbomoso, Oyo State.

2017- 2020

- Coordinated training as the I.T (Industrial) Manager.
- Tutored and mentored undergraduate students and graduates in Data Analysis, Advanced Excel, and Desktop Publishing.

- Tutored and mentored undergraduate students and graduates in Aspen Hysys and Aspen Plus, MATLAB, Excel, Graphics (Corel Draw and Adobe Packages), and Microsoft Packages.

#### **Technical Operation Intel**

2019

##### **Addax Petroleum Development Nigeria Limited**

- Led a team of 16 to develop a Final Investment Decision (FID) for an onshore field.
- Learned about oil and gas business chain
- Acquired a strategic understanding of how different disciplines (such as Accounting, Economics, and Finance) operate in real life.

#### **Script checker**

2019

##### **West Africa Examination Council (WAEC) Ogbomoso Marking Venue**

- Checked candidates' scripts to ascertain correct score computation.
- Vetted candidates' scripts.

#### **Technical Operation Intel (SWEP 2)**

2019

##### **Unit Laboratory, Department of Chemical Engineering, Ladoke Akintola University of Technology (LAUTECH)**

- Learned how to make a various home product such as Germicide (Izal), Bar soap, Vaseline, insecticide
- Learned various chemical engineering related software

#### **Technical Operation Intel (SWEP 1)**

2018

##### **Unit Laboratory, Department of Chemical Engineering, Ladoke Akintola University of Technology (LAUTECH)**

- Learned how to make a various home product such as Medicated Balm, Bleach, Air fresher, liquid soap.
- Learned how to use various unit operation equipment such as fluidized bed drier, Osborne Reynolds equipment, Tray drier, Screen sieve.

#### **Academic Tutor**

2015–2021

##### **No Magic In Success (NMIS) Academy**

- Tutored and mentored the first-year student of Ladoke Akintola University of Technology (LAUTECH) in the following courses

Mathematical method 1  
Physical Chemistry

Mathematical method 2  
Organic Chemistry

- Tutored and mentored the second-year student of Ladoke Akintola University of Technology (LAUTECH) in the following courses

Engineering Analysis 1 and 2  
Engineering Thermodynamics 1 and 2  
Engineering Mechanics 1

Engineering Mechanics 2  
Material science 1 and 2  
Chemical Engineering Analysis 1

- Tutored and mentored the third-year student of Ladoke Akintola University of Technology (LAUTECH) in the following courses

Engineering Statistic  
Transport phenomena 1 and 2  
Separation 1 and 2

Chemical kinetics  
Chemical Engineering Analysis 2

#### **Class Instructor**

2014- 2015

A1 Comprehensive Grammar School, Oke Oore, Iwo, Osun State, Nigeria.

- Taught and mentored secondary school student in Mathematics, Chemistry and Physics
- Developed and implemented lesson plans to enhance students' understanding and performance in these subjects.

## SELECTED POSITIONS HELD

### President

2025-

African Graduate Students Association (AGSA), Louisiana State University

Present

- Led implementation of "UNITE, BUILD, THRIVE" strategic vision serving 200+ African graduate students across all LSU departments
- Developed and launched official AGSA website featuring event calendars, resource guides, and member spotlights to enhance digital presence and alumni engagement
- Established peer mentorship program connecting new students with senior graduate students for academic and professional guidance
- Coordinated comprehensive new student support including pre-arrival virtual orientation, airport pickups and welcome events
- Created professional development resources including mock interview program, travel guide for international students, and academic success handbook
- Launched new social programming including Summer Social Night and Bowling Events
- Organized "Africans in Research" symposium showcasing student research through formal presentations and poster sessions

### Vice President

2024-2025

African Graduate Students Association (AGSA), Louisiana State University

- Organized and executed 10+ cultural, professional, and social events serving 100+ graduate students across two semesters
- Coordinated Summer & Fall 2024 events including Summer Mixer, Pitch Perfect Presentation Workshop, African Vogue Night, Fall Welcome Event, and Volleyball Soccer Thrill
- Planned Spring 2025 programming including New Student Orientation, AGSA Galentine, Beyond Graduation Career Workshop, Movie Night, and Afro Luxe Soirée: A 90s Cultural Rewind
- Facilitated professional development workshops on presentation skills and post-graduation career opportunities
- Promoted community building through themed social events and athletic activities

### Governor

2022

Sustainable Development Goals, NYSC Bayelsa state

- Organized weekly in-house meetings.
- Organized a Child Awareness Program with the theme "Girl-Child Education: A 'Sine Qua Non' for Gender Equality."
- Organized a Students Empowerment Program with the theme "Don't Make Every Problem a Competition; Let Students Feel Personally Connected and Responsible for Their Own Issues from Time to Time."
- Organized a Child Awareness Program with the theme "Students Who Visualize Self-Expression Will Be More Likely to Express Themselves in Real Life."

### Corps Camp Director

2021

National Youth Service Corps (NYSC) Bayelsa State

- Managed and supervised the development and execution of daily camp programs and communications with NYSC officials, instructors, and corps members.
- Provided daily oversight to insure a safe and efficient work environment in the orientation camp.

### Pioneer National Ex-Official

2021

Nigerian Institute of Environmental Engineers Students' Affiliate (NIEEA)

- Established good relationship between Engineering Students and other Professional bodies
- Selected the first set of executives, Collaborate with them and community agencies to locate available resources
- Delivered one-on-one mentoring to students about Nigerian Institute of Environmental Engineers

- Designed a logo for the society to aid proper representation and recognition

### **National President**

2020-2021

Nigerian University Engineering Students Association (NUESA)

- Represented the interest of all Engineering students in Nigeria.
- Provided of first ever Website, Chat App and E-Library with over 10,000 registered members (<https://nuesanational.org.ng>) within a year.
- Awarded electronic membership certificate and membership identification cards for all registered members.
- Organized Monthly webinars for all engineering students in Nigeria all the videos available at <https://nuesanational.org.ng>
- Organized the first ever National Engineering Summit.
- Organized the first ever National Engineering Workshop.
- Organized 10 general meeting with all engineering student in Nigeria with over 8,000 students in attendance on our national chat app.
- Carried-Out Quiz Competition and Career talk for Secondary School Students to give them firsthand information about Engineering.
- Carried-Out Paper Presentations contest and Project Exhibition among her members
- Organized COVID 19 Engineering Challenge
- Established good relationship between Engineering Students and other Professional bodies such Nigerian Society of Engineers (NSE), Council for the Regulation of Engineering in Nigeria (COREN), Association of Professional Women Engineers of Nigeria (APWEN), Federation of African Engineering Organization (FAEO) and World Federation of Engineering Organization WFEO.

### **Team Governor**

2019

#### **Addax Petroleum Internship Program (APIP 2019)**

Lead the team of 16 in providing the Field Development Project Final Investment Decision (FID) for an onshore field. Where we were able:

- .Propose value addition to the Field through further development of the reservoir;
- Analyse the best development scenario which maximizes recovery from the reservoir at minimum cost

### **National Secretary-General**

2019

Nigerian University Engineering Students Association (NUESA)

- Represented the interest of all Engineering students in Nigeria.
- Lead monthly meeting with the President, Create agenda and follow up on member inquires
- Collaborated with other student leaders on issues concerning Engineering students in Nigeria

### **Public Relation Officer**

2018

Nigerian University Engineering Students Association (NUESA), LAUTECH chapter

- Planning publicity strategies and campaign
- Organized and attended promotional events such as Press Conferences
- Produced daily Presentation and Press release

### **Secretary**

2018

American Chemical Society (ACS), LAUTECH chapter

- Collaborated with our staff advisor and community agencies to locate available resources
- Delivered one-on-one mentoring to students about American Chemical Society (ACS)
- Design a logo for the society to aid proper representation and recognition
- Scheduled quest speakers to enhance member knowledge and creating networking opportunities.

### **Academic Tutor**

2014-2021

LAUTECH Student Union Tutorial (**Coordinator**), NUESA Tutorial (**Coordinator**), Muslim Student Society

of Nigeria (MSSN), LAUTECH Chapter Tutorial (**Tutor**) and Chemical Engineering Muslim Student, LAUTECH Chapter (**Director of Study**)

- Encouraged students in his/her mastery of the subject to feel competent in his/her understanding of the material
- Encouraged critical thinking and ensure that the student's knowledge is challenged and probed
- Promoted group problem solving and critical thinking by helping students to define issues and synthesize information

2014

#### **Senior Prefect Boy (President)**

A1 Comprehensive Grammar School, Oke Oore, Iwo, Osun State, Nigeria.

- Represented the interest of the students
- Lead a weekly meeting, create agenda and follow up on members inquiries
- Implemented collective ideas to sponsors event which promote educational and social change

2008

#### **Maintenance Prefect Boy (Labour Prefect Boy)**

Vico Hope Nursery and Primary School, Iwo, Osun State, Nigeria

- Prompt, accurate and professional response to all maintenance job
- Removal and relocation of furniture from class to class
- Assisted with School improvement such as building renovation, fencing etc.

### **SELECTED CONFERENCES/SEMINAR ATTENDED**

- The PRiME 2024 Electrochemical Society ECS Meeting Honolulu, HI  
6th-11th October, 2024 Hawaii Convention Center & Hilton Hawaiian Village.
- The 245th Electrochemical Society ECS Meeting San Francisco, CA  
26th-30th May, 2024 Marriott Marquis San Francisco.
- American Chemical Society (ACS) Spring 2024 meeting  
7th-21st March 2024, New Orleans, Louisiana
- Annual Workshop on Electrochemical Measurement. Yeager Center for Electrochemical Sciences  
7th-11th August 2023, Case Western Reserve University
- Nigerian Society of Engineers (NSE), National Engineering Conference: *Expansion of the Energy Mix for National Economic Growth..*  
6th-10th December 2021, International Conference Center (ICC), Abuja, Nigeria
- Nigerian Institution of Civil Engineers (NICE) 19th International Conference & Annual General Meeting: *Civil Infrastructure Development: Challenges and Prospects Under Pandemic Situations.*  
13th-15th October 2020, The Dome Event Centre Okpanam Road, Asaba, Delta State, Nigeria.
- Nigerian University Engineering Students Association (NUESA), 4<sup>th</sup> National Technical Conference and Exhibition: *Leapfrogging Engineering Education and Practices Through an All-inclusive Sustainable Pathway*  
5th-9th April, 2021, Great Hall, Ladoke Akintola University of Technology, Ogbomoso, Oyo State Nigeria
- Nigerian Society of Engineers (NSE), National Engineering Conference: *Engineering Education and Lifelong Learning Opportunities for Sustainable Development.*  
16th-20th November 2020, International Conference Center (ICC), Abuja, Nigeria
- Nigerian Institution of Civil Engineers (NICE) 18th International Conference & Annual General Meeting: *Reform of Engineering Education: A Strategy for Sustainable Development in Nigeria.*  
14th-16th October 2020, International Conference Center (ICC), Abuja, Nigeria
- Nigerian Society of Engineers (NSE), National Engineering Conference: *Building Resilient Infrastructure to Promote Sustainable Industrial Growth.*  
2nd-6th December 2019, Afficent Event Centre, 3 Magajin Rumfa Road, Nassarawa GRA, Kano.
- Nigerian Institution of Safety Engineers (NISaftyE), National Engineering Conference: *Advancing Modern Safety Engineering Application for Industrial and Public Safety in Nigeria.*  
October 31st to November 1st 2019. The AZNY Place, 2 Louis Drive off Abacha Road, GRA Port-Harcourt, Nigeria.
- Nigerian University Engineering Students Association (NUESA), 3<sup>rd</sup> National Technical Conference and Exhibition: *The*

*role of engineers in nation building with focus on the sustainable Development Goals.*

16th-20th September 2019, Nile University of Nigeria, FCT, Abuja, Nigeria.

- Nigerian Society of Engineers (NSE), National Engineering Conference: *Sustainable Engineering Infrastructure for Accelerated Rural Development.*

26th-30th November 2018, Chida Event Centre, Jabi District, Abuja, Abuja, Nigeria

- Nigerian Institution of Safety Engineers (NISaftyE), National Workshop: *Petroleum Tanker Safety.* And National Safety Engineering Conference: *Accident Prevention; The role of Government; from a Safety Engineering perspective.*

14th-16th, November 2018. Ibom E-Library Complex, Uyo, Akwa Ibom State, Nigeria.

- Southern Nigeria Festival of Chemistry: *Showcasing Chemistry as the Central Science.*

15th November, 2018, Onyema Ugochukwu Hall, University of Uyo Town Campus, Ikpa Road, Uyo, Akwa Ibom State, Nigeria.

- Nigerian University Engineering Students Association (NUESA), 2<sup>nd</sup> National Technical Conference and Exhibition: *Creating a Cohesive Engineer; It's Implication To Engineering Education and Society.*

8th-13th October 2018, University of Port-Harcourt, Port-Harcourt, Nigeria.

- Nigerian University Engineering Students Association (NUESA), 1<sup>st</sup> National Technical Conference and Exhibition: *Exploring Nigeria's Development Potentials: Engineering Perspective*

13th-17th September, 2017, Abubakar Tarawa Ralewa University, Bauchi, Nigeria.

## ACCOMPLISHMENT

### Distinctions and Awards

|                                                                                                                                                                                                            |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| • ECS F. M. Becket Summer Fellowship.                                                                                                                                                                      | 2025 |
| • The Industrial Electrochemistry and Electrochemical Engineering (IE&EE) Division Student Achievement Awards                                                                                              | 2025 |
| • ECS-IOP Trusted Reviewer Status Award. Awarded by IOP Publishing                                                                                                                                         | 2024 |
| • Award of Appreciation In Recognition of your Dedication and Exceptional Work at helping Celebrate World Refugee & Immigrant Day with LORI. Awarded by Louisiana Organization for Refugees and Immigrants | 2023 |
| • George A. Daniels Graduate Fellowship. LSU Cain Department of Chemical Engineering                                                                                                                       | 2022 |
| • Award of Appreciation. Awarded by LAUTECH Center for Research, Innovations and Discoveries.                                                                                                              | 2022 |
| • Award of Commendation and Good Leadership Display. Awarded by the NYSC State Coordinator, Bayelsa State.                                                                                                 | 2021 |
| • Best Undergraduate Research Award. Awarded by Bioenvironmental Water and Engineering Research Group                                                                                                      | 2021 |
| • Award of Excellence and Impactive Leadership. Awarded by fourth NUESA Committee of Chapter President.                                                                                                    | 2021 |
| • Most Resourceful Students. Awarded by the Class 19 Graduating Students, Ladoke Akintola University of Technology (LAUTECH)                                                                               | 2021 |
| • Best Serving NUESA National President. Awarded by Nigerian Society of Engineers President, Engr. Babagana Muhammed, FNSE during NSE 2020 COnference in Abuja                                             | 2020 |
| • Most Innovative and Outstanding Students Leader. Awarded by the executive governor of Nasarawa, Engr. Abdullahi A. Sule                                                                                  | 2020 |
| • Best Student in Process Design (CHE 503 and CHE 504). Awarded by Department of Chemical Engineering, Ladoke Akintola University of Technology (LAUTECH)                                                  | 2020 |
| • Award of Excellence and Impactive Leadership. Awarded by Etuk Ubongabasi, 2019 NUESA National President                                                                                                  | 2019 |
| • Chairman of Technical Interest Group (TIG) LAUTECH Chapter. Led team LAUTECH in participating in Engineering Bow Competition                                                                             | 2018 |
| • Second Runner Up In American Chemical Society, Quiz competition                                                                                                                                          | 2018 |
| • Most Outstanding Students ever in CSE 331, Engineering Statistics (98/100). Awarded by Faculty of Engineering and Technology, Ladoke Akintola University of Technology (LAUTECH)                         | 2017 |
| • First Place Position in Interfaculty quiz competition organized by LAUTECH Student Union Government.                                                                                                     | 2015 |

- First Place Position in Inter-departmental quiz competition organized by NUESA LAUTECH Chapter. 2015
- A1 Grammar School ALUMNI Award For The Most Outstanding Student 2014
- Federation of Iwo Student (FISU) OAU Chapter Award For The Most Outstanding student in Iwo, Olaoluwa and Ayedire Local Government 2014

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#### **Event/seminar/workshop organized, community involvement and volunteering**

- Reviewer for Journal of Material Science Research and Review 2025
- Reviewer for Journal of Electrochemical Society 2024
- Volunteer at LSU Graduate Research Conference 2024
- Judge at Louisiana State Science & Engineering Fair. 2024
- Volunteer at Super Science Saturday 2023
- Volunteer at LSU Graduate Research Conference 2023
- Organized Free Jamb Tutorial for Five Months for Bayelsa state students. 2022
- Chairman organizing committee of Child Awareness Program with a theme *Girl-Child Education A 'Sine Qua Non' For Gender Equality* organized by Sustainable Development Goals Bayelsa State. 2022

Venue: Government Science and Technical College, Okaka, Bayelsa State

- Chairman organizing committee of Students Empowerment Program with a theme *Don't make every problem a competition; let students feel personally connected and responsible for their own issue from time to time* by organized by Sustainable Development Goals Bayelsa State. 2022

Venue: Community Primary School, Ekiki/Okaka, Bayelsa State

- Chairman organizing committee of Child Awareness Program with a theme *Students who visualize self-expression will be more likely to express themselves in real life* organized by Sustainable Development Goals Bayelsa State. 2022

Venue: Government Science and Technical College, Akaba, Bayelsa State

- Organized the first ever National Engineering Workshop: *Enabling 21<sup>st</sup> Century Skills for Engineering Development and Practices*. Several software applications ranging from all Microsoft office suites, to other technical software's such as MATLAB, C++, C#, Java, ANSYS Fluent software, Autodesk Product Design Suite, Solid works, MechDesigner, COMSOL Multiphysics and so on were taught using an online interactive platform. 2021

- Organized the first ever National Engineering Summit: *Engineering and Social Economic Development in a Post-Covid Era*. We hosted virtually NSE President, MD of TOTAL E&P, COREN President, APWEN President, Chevron Drilling Manager, NSE Vice President, Current Chairman of Nigerian Institute of Water Engineers and other Distinguished Engineers. 2020

- Organized Monthly webinars for all engineering students in Nigeria. 2020 -  
Few of which are: 2021

• Application of Machine Learning in Engineering and Technology: *Doing it the right way* (<https://youtu.be/POg7GfsrYt0>)

• Cutting Through the Hodgepodge: *A Panacea to Post COVID-19 Era* (<https://www.youtube.com/watch?v=a0iQT5oBl84>) etc.

- Member of Organizing Committee and Mobilization Committee of Professional Lecture and Inter-Departmental Competition. 2019

Organized by: Association of Professional Women Engineers of Nigeria (APWEN)

Topic: *CAPACITY BUILDING; a catalyst in development of female Engineers*

- LOC chairman in Major League Hacking's Local Hack Day hosted by GitHub which was locally organized by MLH LAUTECH. 2018

- Member of Organizing committee of Star Network Conference SNC. 2018.

Professionals were invited from far and wide to share from their wealth of their experience on what it takes to succeed both whiles in school and after school.

- Chairman of Organizing Committee of Orientation and Seminar for 100Level Students. 2018  
Topic: *A Balanced Student*  
Panel Discussion: *Beyond Academics, Campus Politics*
- LOC Chairman in Farm hack. This was a 48hours hackathon. 2018.  
This was done to address the challenges in our agricultural sector, using ICT as a tool.  
My team GemsteCycle came second in this competition.  
GemsteCycle is into converting farm produce that due to unsold or poor preservation got spoilt into useful fertilizer.
- Chairman of Organizing Committee of Industrial Training Seminar for all LAUTECH 400Level Students. 2018.  
The focus was to prepare students for life beyond the school walls.

## Project

- Copper-Based Electrocatalysts for Electrochemical Reduction of CO<sub>2</sub> to C<sub>2</sub> Products
- Electrochemical Reduction of CO<sub>2</sub>: A Common Acetyl Path to Ethylene, Ethanol or Acetate
- Activity and Selectivity Studies in CuSn<sub>x</sub> Bimetallic Electrocatalysts
- Highly Selective Electrolytic Reduction of CO<sub>2</sub> to Ethylene
- Flowing Electrolyte-Direct CO<sub>2</sub> Electrolyzer (FE-DCE) Development
- Experimental Study of Adsorption of Methylene Blue from Simulated Wastewater Using Polymeric Composite as A Low-Cost Adsorbent
- APO Field Development Project, OML 124
- Analysis of Ammonia synthesis loop process flow diagram using Excel
- Simulation of Natural Gas using Aspen-HYSYS
- Design of Automated Invoice using Excel

## TRAINING AND MOOC

- Research Integrity: Publication Ethics – Nature Masterclass 2024
- Focus on Peer Review – Nature Masterclass 2024
- IOP Peer Review Excellence Training Graduate – IOP Publishing 2024
- Certificate of Electrochemical Measurements – The Ernest B. Yeager center for Electrochemical Science 2024
- Hazard and Risk Introduction to pressure protection –Sache Certificate of Completion 2022
- Understanding Hazard & Risk –Sache Certificate of Completion 2022
- Python Data Science – Certificate of Completion 2019  
*Launchi Software Academy (LSA), Oyo State, Nigeria*
- Advanced Excel – Certificate of Completion 2019  
*Launchi Software Academy (LSA), Oyo State, Nigeria*
- Aspen Hysys – Certificate of Completion 2018  
*Launchi Software Academy (LSA), Oyo State, Nigeria*
- MATLAB – Certificate of Completion 2018  
*Launchi Software Academy (LSA), Oyo State, Nigeria*
- IWCF Level 1 Programme – Certificate of Completion 2018  
*International Well Control Forum*
- Well Operation Crew Resource Management 2018  
*International Well Control Forum*

## HOBBIES

Travelling, Studying, Teaching, Meeting People