

EBOSEREMEN EBWELE *M.Eng, B.Eng*

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PROFILE SUMMARY

Chemical Engineering Researcher with 7+ years of experience in research, lecturing and process monitoring. Has proven experience in imparting knowledge to students while maximizing and refining their academic potentials to train into world-class students with an in-depth understanding of chemical engineering processes. Astute Researcher with an excellent track record of using quantitative data process to justify findings while maintaining data integrity in line with the academic profession. Recognized for driving process improvements and providing teaching assistance to students. Open to opportunities in Academics and as an industrial Chemical Engineer.

- ✓ **Research interests:** Membrane Fabrication, Characterization and application, Modelling, Simulation, Control and Optimization of Environmental Systems, Modelling, Simulation, Control and Optimization of Energy Systems, Environmental Pollution Control and Management, Renewable Energy (Biofuels), , and Nano-particle Synthesis.

EDUCATION

- **M.Eng Chemical Engineering (Emphasis Sustainable Energy)** –University of Toronto, Ontario, Canada **(In View)**
- **M.Eng Chemical Engineering** –University of Benin, Benin City, Nigeria (GPA 3.7/4)
Research Project “Application of response surface methodology for the adsorption heavy metals from aqueous solution using Activated Orange peels” **2016**
- **B.Eng. (Hons) Chemical Engineering (Second Class Upper Division)** – University of Benin, Benin City, Nigeria (GPA 3.27/4) **2011**

CORE COMPETENCIES

- Academic Research
- Laboratory Control
- Equipment Maintenance
- Presentation Skills
- Mentorship
- Data Analysis & Evaluation
- Collaboration and Teamwork
- Lecturing
- Material Characterization (SEM, FTIR, XRD, TEM)

SKILLS

- **Soft Skills:** Possesses emotional and social intelligence, administrative, cultural competence, and problem-solving skills.
- **Communication:** Possesses strong public speaking, lecture delivery, research, and information dissemination skills.
- **Technical Skills:** Proficient in Microsoft Office (Word, Excel, PowerPoint), **Aspen HYSYS** for process modeling, simulation, control and optimization, and **DESIGN EXPERT** for experiment design optimization for response surface methodology.

EXPERIENCE

Research Assistant. (Membrane Laboratory) – United Arab Emirates University, Al Ain, U.A.E **January 2020 – January 2021**
Developed and characterized Polyvinylidene Fluoride (PVDF) membranes used for solvent recovery. Carried out research following the appropriate research methodology, laboratory requirements, and data integrity to prepare manuscripts for peer reviewed journal publications.

- Collaborated with the other researchers and lecturers to improve laboratory and inventory maintenance by **35%**.
- Achieved a **15%** increase in data integrity and mining by sorting, collecting, and conducting statistical analysis of data sets.
- Log experimental data, prepare manuscripts for review and publication, create presentation slides of findings for conferences.
- Provide library, laboratory, and field assistance during research to facilitate research findings within the stipulated timeline.

Teaching Assistant – United Arab Emirates University, Al Ain, U.A.E.

September 2019 – December 2019

Served as a tutor and offered academic guidance to students. Broadened students' knowledge in Chemical Engineering while reducing failure rates in the courses taken.

- Provided information on CHME 413 (Heat Transfer) to 125 students and improved the success rate to 65%.
- Strengthened Lecturer-Student bond through coursework reviews during weekly office hours support.
- Graded and prioritized constructive feedback on students' tests and assignments to foster academic goals.

Lecturer II – University of Benin, Benin City, Edo State, Nigeria

May 2017 – July 2019

Prepared lectures and workshops, ascertained students' understanding and assimilation of lessons taught and administered tests, assignments, and examinations in line with Nigerian Universities Commission's rules and regulations. Managed over 1000 students in General Studies (GST 123) class.

- Optimized learning experiencing, achieving a 40% increase in students' academic performances through the adoption of different teaching styles to facilitate knowledge.
- Appointed as **300 Level Assistant Course Adviser** and the **Department's Examination Officer**.
- Reduced examination anxiety by providing a supportive atmosphere for students' during examinations.
- Taught Separation Processes II (CHE 461), General Studies (GST 123), Fluid Flow for Chemical Engineers (CHE 361), Mass Transfer Operations (CHE 362), Engineering Mathematics (EMA 281), and Materials Science (CHE 222).
- Design Project Supervision for undergraduate students

Graduate Assistant – University of Benin, Benin City, Edo State, Nigeria

November 2014 – April 2017

Understudied senior lecturers, learned teaching and laboratory techniques, assisted in carrying out research, and instructed students. Managed approximately 140 – 160 students in each course.

- Coached students and prepared instruction materials in Separation Processes II (CHE 461), Mass Transfer Operations (CHE 362), Engineering Mathematics (EMA 281), and Materials Science (CHE 222).
- Assigned as a Transcript Officer, drove the collection rate at **60%**, and minimized transcript collection processing time.
- Served as **300 Level Assistant Course Adviser** and provided academic counseling to influence students' learning attitudes.

OTHER EXPERIENCE

- **Welding and Fabrication Instructor & Examination and Laboratory Coordinator** – Word of Faith group of Schools, Abuja F.C.T Nigeria (NYSC Scheme) **July 2012 – June 2013**
- **Assistant Process Monitoring Officer** – Warri Refining and Petrochemical Company **October 2010 – March 2011**
- **Assistant Supervisor Customer Service** – Liquor Control Board of Ontario LCBO, Brampton Ontario **November 2021 – December 2021**

AWARDS

- **United Arab Emirates University (UAEU)** Basic Fellowship Research Award **2019**.
- **University of Benin** Graduate Research Scholarship **2014**.

PUBLICATIONS

- Amenaghawon, N.A., **Ebewele, O.E.**, Osakue, I.Y. and Obaseki, O.R. (2017). Optimization of Media Components using Central Composite Design for increased Citric Acid production from Yam Peels by *Aspergillus niger*. FUOYE Journal Of Engineering and Technology
- E. Oyedoh, C. Odumugbo, **E. O. Ebewele**. (2016) "Suitability of Nigerian Bentonite in Drilling Fluid Formulation," International Journal of Engineering Research in Africa, Vol. 24, pp. 26-34, DOI: <https://doi.org/10.4028/www.scientific.net/JERA.24.26>
- Amenaghawon, N.A., **Ebewele, O.E.**, Osakue, I.Y. and Uche, A.C. (2016). Statistically Designed Experiments for the Optimisation of Furfural Production from Corn Cobs using Response Surface Methodology. Research Journal of Engineering and Environmental Sciences, Vol. 1(1), pp. 10-17 <http://rjees.com/download/?file=V01-01-10-17.pdf>
- Amenaghawon, N.A., Osakue, I.Y., **Ebewele, O.E.**, and Ehidihamen, S.E. (2016). Optimization of Nutrient Medium for the Production of Bioethanol from Rice Husk using *Saccharomyces cerevisiae*. Research Journal of Engineering and Environmental Sciences, Vol. 1(1), pp. 107-116. <http://rjees.com/download/?file=V01-01-107-116.pdf>
- Amenaghawon, N.A. **Ebewele, O.E.**, and Salokun, O. (2016). Application of Box-Behnken Design for Optimum Citric Acid Production from Cocoyam Starch Hydrolysate using *Aspergillus niger*, Nigerian Journal of Technological Research, Vol. 11(1), pp. 32 DOI: [10.4314/njtr.v11i1.5](https://doi.org/10.4314/njtr.v11i1.5)
- Amenaghawon, N.A., **Ebewele, O.E.**, and Osayuki-Aguebor, W. (2015). Analysis of in situ Gas Stripping of Ethanol during Fermentation via Dynamic Modelling and Simulation. Umudike Journal of Engineering and Technology, Vol. 1(2), pp. 35-42
- Amenaghawon N.A., Oiwoh, O., and **Ebewele, O.E.** (2015). Optimisation of Fermentation Conditions of Citric Acid Production from Banana Peels using Response Surface Methodology, Nigerian Journal of Technology, Vol. 34(4), pp. 716-723 DOI: [10.4314/njt.v34i4.8](https://doi.org/10.4314/njt.v34i4.8)
- Amenaghawon, N.A., Osazuwa, O.U., and **Ebewele, O.E.** (2015). Optimising the effect of stimulants on citric acid production from cocoyam starch using *Aspergillus niger*. Nigerian Journal of Technology, Vol. 34(4), pp. 724-730 DOI: [10.4314/njt.v34i4.9](https://doi.org/10.4314/njt.v34i4.9)
- Amenaghawon, N.A., Omoregbe, O., and **Ebewele O.E.** (2014). Statistical Optimisation of the Production of Fermentable Sugars from Cocoyam Starch using Response Surface Methodology, Journal of Engineering for Development, Vol. 11, pp. 91-98.

CONFERENCES/WORKSHOP ATTENDED

- 6th International Conference on Renewable Energy: Generation and Applications held at the United Arab Emirates University Al Ain Abu Dhabi from 2nd – 4th February 2021. Paper presented “Regeneration of solvent for CO₂ capture: A review”. DOI: [10.1109/ICREGA50506.2021.9388298](https://doi.org/10.1109/ICREGA50506.2021.9388298)
 - 50th National Engineering Conference Exhibition and Annual General Meeting (A.G.M.) themed "Diversification of Nigerian Economy: Engineering Perspective" held at the Chida Events Center Utako Abuja from 20th– 24th November 2017.
 - 45th NSChe Annual Conference, Exhibition, and A.G.M held at the Bestwestern Plus Wetland Hotel, Udu Warri. Thursday 5th – Saturday 7th November 2015.
 - Workshop on Pedagogue for young/intermediate Lecturers in the University of Benin held at the Senate Chambers University of Benin on Wednesday 19th August 2015.
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