CURRICULUM VITAE

Prof. Titus Oluwasuji AJEWOLE

Professor of Power System Resilience and Renewable Electric Microgrid
&
Chartered Chief Engineering Consultant

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EDUCATIONAL BACKGROUND

PhD **Doctor of Philosophy – Electronic and Electrical Engineering**
September 24, 2014
Obafemi Awolowo University, Ile-Ife, Nigeria *[2011 – 2014]*

M.Sc. **Master of Science – Electronic and Electrical Engineering**
January 26, 2011
Obafemi Awolowo University, Ile-Ife, Nigeria *[2008 – 2010]*

B.Eng. **Bachelor of Engineering – Electrical and Computer Engineering**
February 2, 2004
Federal University of Technology, Minna, Nigeria *[1999 – 2004]*

Others:

PGDip **Postgraduate Diploma – Education**
January 24, 2021
University of Ilorin, Ilorin, Nigeria *[2020 – 2021]*

NDip **National Diploma – Electrical and Electronics Engineering**
December 23, 1995
Osun State College of Technology, Esa-Oke, Nigeria *[1993 – 1995]*

PROFESSIONAL CREDENTIALS

Fellowships and Accreditations

Fellow, Institute of Policy Management and Leadership Development (FIPMLD)
Date Conferred: July 31, 2026 | Fellowship No: N4202-328

Fellow, Nigerian Society of Engineers (FNSE)
Date Conferred: November 7, 2024 | Fellowship No: 24429
(Previously Corporate Member - MNSE since 2011)

Fellow, Nigerian Institute of Electrical and Electronic Engineers (FNIEEE)
Date Conferred: June 24, 2023 | Fellowship No: F00261
(Previously Corporate Member - MNIEEE since 2011)

Senior Member, Hong Kong Chemical, Biological and Environmental Engineering Society
Date Inducted: November 22, 2017 | Membership No: 101314

Member, International Association of Engineers

Date Inducted: June 14, 2023 | Membership No: 342059

Member, Institute of Electrical and Electronic Engineers
Date Inducted: April 5, 2012 | Membership No: 99241600

Licensures and Registrations

Chartered Electrical Engineer (CEE) / Chartered Chief Engineering Consultant
Chartered Institute of Electrical and Electronic Engineers of Nigeria (CIEEEN)
Date Licensed: March 28, 2026 | License No: CEE/000149

Certified Teacher with *Category-A License*
Teachers Registration Council of Nigeria (TRCN)
Date Licensed: December 11, 2024 | License No: OS/R/09191

Registered Engineer (*R.Eng.*)
Council for the Regulation of Engineering in Nigeria (COREN)
Date Licensed: March 14, 2012 | License No: R22174

Certifications and Special Trainings

Awarded Continuing Education Units for Training on Electric Smart Grids
University of Tennessee at Chattanooga Division of Continuing Education
Chattanooga, TN, USA
Date Awarded: October 3, 2012

ACADEMIC EXPERIENCE

Present Status

Current Employer:	Osun State University, Osogbo, Nigeria [August 1, 2007 to date]
Substantive Rank:	Professor [October 1, 2023 to date]
Field:	Engineering
Discipline:	Electrical and Electronic Engineering
Specialization:	Power Systems and Machine Drives
Research Focus/Interest:	Energy Conversion and Storage, Power Systems Resilience, and Renewable Electric Microgrids

Research Outputs and Impacts

Links to Research Outputs

Google Scholar:	*https://www.scholar.google.com/citations?user=YcpT9xMAAAAJ&hl=en*
ResearchGate:	*https://www.researchgate.net/profile/Titus-Ajewole*
Scopus:	*https://www.scopus.com/authid/detail.uri?authorId=56495605300*
Web of Science:	*https://www.webofscience.com/wos/author/record/NJR-3995-2025*
ORCID:	*https://orcid.org/0000-0001-7051-4304*
Academia:	*https://independent.academia.edu/AJEWOLETitus*
LinkedIn:	*https://www.linkedin.com/in/titus-ajewole-69b4034a/*
Open Alex:	*https://openalex.org/authors/a5061388182*
Africa Research Connect:	*https://africaresearchconnects.com/research/?aut=1000155708*
AD Scientific Index:	*https://adscientificindex.com/scientist/titus-o-ajewole/5797510/*
ScholarGPS:	*https://scholargps.com/scholars/13322562822140/titus-o-ajewole*

Impacts of Research Outputs

citations:	746
h-index:	14
*i*10-index:	27

Courses Taught *(Harmattan, Rain, and Summer Semesters)*

Undergraduate

Introduction to Electrical and Electronic Engineering
Electrical Machines I
Electrical Machines II
Electrical Measurement and Instrumentation
Electric Power Principles
Design of Electrical and ICT Services

Postgraduate

Advance Engineering Mathematics
Electrical and Electronic Engineering Materials
Electrical Services Design
Electric Power Principles
Electrical Machines
Electric Power Systems Analysis
Electric Power Systems Stability
Research Methodology I
Research Methodology II
High Voltage and Switch Gear Engineering
Advance Research and Development Techniques
Distributed Generation and Renewable Energy Systems

Experience at Osun State University **[2007 to date]**

Career Progression

Professor	October 1, 2023 to date
Associate Professor (Reader)	October 1, 2020 – September 30, 2023
Senior Lecturer	October 1, 2017 – September 30, 2020
Lecturer I	September 24, 2014 – September 30, 2017
Lecturer II	March 12, 2012 – September 23, 2014
Assistant Lecturer	January 24, 2011 – March 11, 2012
Graduate Assistant	February 19, 2009 – January 23, 2011
Graduate Fellow	August 1, 2007 – February 18, 2009

Administrative Responsibilities

Dean, Faculty of Engineering [2025 to date]

- chairing the Management Board and the Academic Board of the Faculty
- chairing the Promotion Review Panel of the Faculty
- chairing the Oversight Committee of the Faculty on Development of Curricula for B.Eng. Programmes in Biomedical Engineering and Materials Engineering
- chairing the Oversight Committee of the Faculty on Re-Accreditation of Undergraduate (B.Eng. in Agricultural and Bio-Resources Engineering, Chemical Engineering, and Mechanical Engineering) Programmes by the Council for the Regulation of Engineering in Nigeria (COREN)
- chairing the Oversight Committee of the Faculty on Resource Verification for Undergraduate (B.Eng. in Computer Engineering and Mechatronic Engineering) programmes by the Council for the Regulation of Engineering in Nigeria (COREN)
- chaired the Oversight Committee of the Faculty on Resource Verification, by the National Universities Commission (NUC), for the commencement of Postgraduate (M.Eng., MPhil/PhD, PhD) Programmes in Agricultural and Bio-Resources Engineering, and Chemical Engineering

Deputy Director, Directorate of Academic Planning [2017 – 2020]

- provided assistance for the Director of Academic Planning in coordinating and streamlining the academic policies and activities in the university
- assisted the Director of Academic Planning in handling the collection and management of data and information to guide the academic development of the university in compliance with the Minimum Academic Standards (MAS) of the National Universities Commission (NUC), training policies of appropriate professional regulatory bodies, and the academic regulations of the university senate
- supported the Director in managing the processes involved in Resource Verifications, Initial Accreditations, and Re-Accreditations of all academic programmes of the university by the National Universities Commission (NUC) and appropriate professional regulatory bodies

Coordinator, Department of Electrical and Electronic Engineering [2015 – 2017]

- chaired the Departmental Academic Board
- chaired the Promotion Review Panel of the Department
- chaired the Departmental Action Committee on Resource Verification by the National Universities Commission (NUC) for the commencement of Postgraduate (M.Eng., MPhil/PhD, PhD) Programmes in Electrical and Electronic Engineering
- chaired the Departmental Committee on Development of Curricula for Postgraduate Studies (PGDEng, M.Eng., MPhil/PhD, and PhD) in Electrical and Electronic Engineering
- chaired the Departmental Action Committee on the Re-Accreditation of Undergraduate (B.Eng. in Electrical and Electronic Engineering) Programme by the National Universities Commission (NUC) and the Council for the Regulation of Engineering in Nigeria (COREN)
- chaired the Departmental Committee on Review of Undergraduate (B.Eng. in Electrical and Electronic Engineering) Study Curriculum

Other Responsibilities within the University

- member, University Senate
- member, Executive Committee of the Postgraduate College
- member, Admission Committee
- member, Appointment and Promotion Committee (Academics)
- member, Development Committee
- member, Committee of Provosts, Deans and Directors
- member, Management Board of the Postgraduate College
- member, Management Board of the College of Science, Engineering and Technology
- member, Promotion Review Panel of the College of Science, Engineering and Technology

Experience at Other Nigerian Universities

Lagos State University of Science and Technology, Ikorodu, Nigeria

Appointment as External Examiner *(for Bache4lor Degree Programme)* [2026 to date]

- moderated the B.Eng. (Electrical and Electronic Engineering) degree final year examination questions for 2026/2027 academic session

Covenant University, Ota, Nigeria

Appointment as External Assessor of a Publication Corpus *(for Academic Promotion)* [2026]

- assessed one (1) candidate in 2026 for promotion to Associate Professor (Reader) of Electrical and Information Engineering

Obafemi Awolowo University, Ile-Ife, Nigeria

Appointment as External Examiner *(for Postgraduate Degree Theses)* [2026]

- examined two (2) M.Sc. (Energy Systems and Engineering) theses in 2026

Adeleke University, Ede, Nigeria

Appointment as Part-Time Professor *(for Postgraduate Degree Programmes)* [2023 to date]

- teaching coursework at M.Eng., MPhil/PhD, and PhD levels

– supervising M.Eng. and PhD research theses

Olabisi Onabanjo University, Ago-Iwoye, Nigeria

Appointment as External Examiner *(for Postgraduate Diploma Theses)* [2022 – 2024]

– examined three (3) and five (5) PGDip (Electrical and Electronic Engineering) theses during 2023/2024 and 2022/2023 academic sessions respectively
– moderated the PGDip (Electrical and Electronic Engineering) examination questions for 2023/2024 and 2022/2023 academic sessions

Appointment as External Examiner *(for Bachelor Degree Programme)* [2022 – 2024]

– examined ninety-eight (98) and one hundred and fourteen (114) B.Eng. (Electrical and Electronic Engineering) degree final projects during 2023/2024 and 2022/2023 academic sessions respectively
– moderated the B.Eng. (Electrical and Electronic Engineering) degree final year examination questions for 2023/2024 and 2022/2023 academic sessions

Appointment as Visiting Senior Lecturer [2021 – 2022]

– taught coursework and supervised students' final projects at B.Eng. (Electrical and Electronic Engineering) degree level
– served in the Departmental Committee on Development of Curriculum for Postgraduate Programmes (M.Eng., MPhil/PhD, and PhD in Electrical and Electronic Engineering)

Bells University of Technology, Ota, Nigeria

Appointment as External Examiner *(for Postgraduate Degree Theses)* [2020 to date]

– examined one (1) PhD (Electrical and Electronics Engineering) thesis in 2026
– examined one (1) PhD (Electrical and Electronics Engineering) thesis in 2025
– examined eight (8) M.Eng. (Electrical and Electronics Engineering) theses in 2022
– examined six (6) M.Eng. (Electrical and Electronics Engineering) theses in 2020

Appointment as External Examiner *(for Postgraduate Diploma Theses)*

– examined seven (7) PGDip (Electrical and Electronics Engineering) theses in 2021
– examined nine (9) PGDip (Electrical and Electronics Engineering) theses in 2020

Ladoke Akintola University of Technology, Ogbomoso, Nigeria

Appointment as External Assessor of Publication Corpus *(for Academic Promotion)* [2026]

– assessed one (1) candidate in 2026 for promotion to Professor of Electric Power System Engineering

Appointment as External Examiner *(for Postgraduate Degree Theses)* [2018 to date]

– examined one (1) M.Tech. (Electronic and Electrical Engineering) thesis in 2026
– examined one (1) PhD and two (2) M.Tech. (Electronic and Electrical Engineering) theses in 2025
– examined two (2) M.Tech. (Electronic and Electrical Engineering) theses in 2024
– examined two (2) M.Tech. (Electronic and Electrical Engineering) theses in 2023
– examined two (2) M.Tech. (Electronic and Electrical Engineering) theses in 2022
– examined three (3) M.Tech. (Electronic and Electrical Engineering) theses in 2021
– examined one (1) M.Tech. (Electronic and Electrical Engineering) thesis in 2018

Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria

Appointment as Visiting Professor [2023 – 2025]

– Acting Dean, School of Engineering and Engineering Technology [2024 – 2025]
  - chaired the Management Board and the Academic Board of the School
  - chaired the Staff Promotion Review Panel of the School
  - chaired the School Committee on Research, Innovation and Grantsmanship
  - chaired the Oversight Committee of the School on Resource Verification by the National Universities Commission (NUC) for the commencement of Postgraduate Study (M.Eng.,

MPhil/PhD, and PhD) Programmes in Civil Engineering, Electrical and Electronics Engineering, and Mechanical Engineering

- chaired the Oversight Committee of the School on Development of Curricula for Postgraduate Study (M.Eng., MPhil/PhD, and PhD) Programmes in Civil Engineering, Electrical and Electronic Engineering, and Mechanical Engineering
- chaired the Oversight Committee of the School on Resource Verification by the National Universities Commission (NUC) for the commencement of B.Eng. Programmes in Chemical Engineering and Petroleum & Gas Engineering
- chaired the Oversight Committee of the School on Development of Curricula for B.Eng. Programmes in Agricultural Engineering, Chemical Engineering, Petroleum and Gas Engineering, Computer Engineering, and Mechatronic Engineering

– Specific Accomplishments as the Acting Dean
  - founded the *OAUSTECH Journal of Engineering and Intelligent Technology* and served as the pioneer Editor-in-Chief for the Journal
  - initiated an annual learned conference: *OAUSTECH International Conference on Engineering and Technology (OICET)*; and served as the convener/host for the maiden edition (OICET 2025) of the conference
  - under my watch, all the academic programmes in the school received full accreditation from both the National University Commission (NUC) and the Council for the Regulation of Engineering in Nigeria (COREN)
  - two new undergraduate programmes: Petroleum & Gas Engineering, and Chemical Engineering; were proposed and started off seamlessly under my watch, with the first set of students admitted following my overseeing curricula development and resource verification for the programmes by the National Universities Commission (NUC) and the Council for the Regulation of Engineering in Nigeria (COREN)
  - as an alumnus of the Carnegie African Diaspora Fellowship Program (CADFP), a Diaspora Fellowship project, with full sponsorship by the Carnegie Corporation of New York (CCNY), was attracted to the school and was successfully executed
  - through the CADFP project, research collaboration linkages and Exchange (Visiting) Scholarship possibilities were created between the School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria and the School of Polytechnic, Purdue University Fort Wayne, Fort Wayne, USA
  - electrical engineering laboratories in the School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria were standardized for teaching and research, as I attracted donation of a number of teaching and research equipment to the laboratories via donation by the home (USA-Based) university of the CADFP Diaspora Fellow
  - students' supervised work experience programme (SWEP) was re-orientated in a way that emerging vocational skills (computer and computer accessories assemblage and troubleshooting, website design and construction, design and installation of solar-PV power system, and development of Artificial Intelligence algorithms); in addition to conventional vocational skills (metalworks, bricklaying and civil construction, woodworks and carpentry); were acquired by the students in a manner that most of the products (goods and services) from the programme were of benefits to the university
  - in promoting partnerships between the academia and governmental agencies, collaborations were established between the school and the Niger Delta Development Commission (NDDC), as well as between the school and the Ondo State Oil-Producing Area Development Commission (OSOPADEC)

– Acting Head, Department of Electrical and Electronics Engineering [2023 – 2025]
  - chaired the Departmental Academic Board

- chaired the Staff Promotion Review Panel of the Department
- chaired the Departmental Action Committee on Resource Verification, by the National Universities Commission (NUC), for the commencement of Postgraduate Study (M.Eng., MPhil/PhD, and PhD) Programmes in Electrical and Electronic Engineering
- chaired the Departmental Action Committee on the Initial Accreditation of B.Eng. (Electrical and Electronic Engineering) Programme by the Council for the Regulation of Engineering in Nigeria (COREN)
- chaired the Departmental Action Committee on Re-Accreditation of B.Eng. (Electrical and Electronic Engineering) Programme by the National Universities Commission (NUC)
- chaired the Departmental Committee on the Review of B.Eng. (Electrical and Electronic Engineering) Curriculum
- chaired the Departmental Committee on the Development of Curricula for B.Eng. Programmes in Computer Engineering and Mechatronics Engineering

– Other Responsibilities within the University
  - member, University Management (Expanded)
  - member, University Senate
  - member, Committee of Deans and Directors of Academic Programmes
  - member, Appointment and Promotion Committee (Academics)
  - member, Research and Innovation Committee
  - member, Publication Ethics and Verification Committee
  - member, Admission Committee
  - member, Procurement Planning Committee
  - member, Board of the School of Postgraduate Studies
  - member, Board of the Centre for Continuing Education and Human Resources Development

Appointment as Adjunct Associate Professor [2022 – 2023]

– chaired the Departmental Committee on Development of Curriculum for Postgraduate Study (M.Eng., MPhil/PhD, and PhD) Programmes in Electrical and Electronic Engineering
– taught coursework at B.Eng. (Electrical and Electronic Engineering) degree level
– supervised students' final projects at B.Eng. (Electrical and Electronic Engineering) degree level

Experience at Universities Outside Nigeria

Durban University of Technology, Durban, South Africa

Appointment as External Examiner *(for Postgraduate Degree Dissertation)* [2025]

– examined one (1) DEng (Electric Power Systems Engineering) Dissertation in 2025

Tennessee Technological University, Cookeville, TN, USA

Appointment as Exchange Visitor [2012 – 2013]

– Visiting Research Scholar at the Department of Electrical and Computer Engineering of the university.
– conducted a study titled: *"Investigation of the Voltage Stability of Utility-Connected Hybrid-Source Electric Microgrid"* at the Electric Microgrid Research Laboratory of the university's Centre for Energy Systems Research (CESR)

University of Tennessee at Chattanooga, Chattanooga, TN, USA

Completion of Advanced Technical Training and Workshop [2012]

– received from the university's Division of Continuing Education, 6 Continuing Education Units in advanced technical training in Electric Smart Grids architectures, distributed energy resources, and modern power systems
– participated in 6 Contact Hours of workshop on integration of specialized knowledge in electric

smart grids into faculty research initiatives and undergraduate laboratory demonstrations, to align academic capabilities with prevailing industry standards

Editorial Services Rendered for Academic Publishing Media

Local Scholarly Publishing Outlets

- founding Editor-in-Chief (2025 to date), Journal of Modern Trends in Electrical Engineering Research and Practice *[published by the Osogbo Chapter of the Nigerian Institute of Electrical and Electronic Engineers (NIEEE), Nigeria]*
- founding Editor-in-Chief (2024 – 2025), OAUSTECH Journal of Engineering and Intelligent Technology, *https://journals.oaustech.edu.ng/ojeit [published by the School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Nigeria]*
- member of the founding Editorial Board, UNIOSUN Journal of Science *[jointly published by the College of Science, Engineering & Technology and the College of Health Sciences, Osun State University, Nigeria]*
- editorial reviewer, Ife Journal of Technology *[published by Faculty of Technology, Obafemi Awolowo University, Nigeria]*
- editorial reviewer, UNIOSUN Journal of Engineering and Environmental Science *[jointly published by the Faculty of Engineering and the Faculty of Environmental Science, Osun State University, Nigeria]*
- editorial reviewer, Equity Journal of Science and Technology *[published by Kebbi State University of Science and Technology, Nigeria]*
- editorial reviewer, Innovative Solution in Engineering (ISE) *[published by The Nigerian Academy of Engineering, Nigeria]*

Foreign Scholarly Publishing Outlets

- editorial reviewer, Scientific Report *[published by Springer Nature, Germany]*
- editorial reviewer, International Transactions on Electrical Energy Systems *[published by Wiley, England]*
- editorial reviewer, Journal of Engineering Research and Reviews *[published by AePub, USA]*
- editorial reviewer, Academia Green Energy *[published by Academia, USA]*
- editorial reviewer, Journal of Electric Power Components and Systems *[published by Taylor and Francis, UK]*
- editorial reviewer, Heliyon *[published by Elsevier, Netherland]*
- editorial reviewer, Energy Science and Engineering *[published by Wiley, England]*
- editorial reviewer, Cogent Engineering *[published by Taylor and Francis, UK]*
- editorial reviewer, International Journal of Energy Sector Management *[published by Emerald, UK]*
- editorial reviewer, Cogent Economics and Finance *[published by Taylor and Francis, UK]*
- editorial reviewer, Scientific African *[published by Elsevier, Netherland]*
- editorial reviewer, Iranian Journal of Electrical and Electronic Engineering *[published by Iran University of Science and Technology, Iran]*
- editorial reviewer, Journal of Energy Safety and Technology *[published by Universiti Teknologi Malaysia, Malaysia]*
- editorial reviewer, Journal of Power and Energy Engineering *[published by Scientific Research Publishing, USA]*
- editorial reviewer, Academia Engineering *[published by Academia, USA]*
- editorial reviewer, ELEKTRIKA – Journal of Electrical Engineering *[published by Universiti Teknologi Malaysia, Malaysia]*
- editorial reviewer, Book Chapter – in Language, Literature and Education: Research Updates *[published by BP International, India]*

Theses / Dissertations Examined (as External Examiner)

Doctoral Degree

1. Bamido O.A. (Matriculation Number: 2023/0898) *"Development of An Adaptive Hybrid Energy Management System for Application in a Rural Community"*. PhD Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; August 2026
2. Ndlela N.W. (Student Number: 21312861) *"The Development of an Optimization Technique for Transmission Expansion Planning with Renewable Energy Integration"*. DEng Thesis, Department of Electric Power Systems Engineering, Durban University of Technology, Durban, South Africa; August 2025
3. Ajiboye O.E. (Registration Number: 2019/0338) *"Development of Artificial Intelligence Based Electric Power Transmission Losses Management System for Revenue Optimization"*. PhD Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2025
4. Adeleke B.S. (Registration Number: AAA2000149) *"Development of Optimized Convolutional Neural Network Fault Predictive Model for South-Western Nigeria Electrical Power Networks"*. PhD Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; February 2025

Master's Degree

5. Taiwo M.O. (Registration Number: TP22/23/H/0817) *"Optimization of Distributed Photovoltaic Systems to Enhance Power Quality and Reliability in Weak Grids"*. M.Sc. Thesis, Department of Electronic and Electrical Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria; November 2026
6. Akindele O.O. (Registration Number: 2023011833) *"Development of an Intelligent Fault Detection and Location System for Nigerian Distribution Network Using Adaptive Differential Evolution Technique"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; July 2026
7. Praise C.F. (Registration Number: TP22/23/H/1087) *"Data-Driven Corrective Measures for Power Quality at World Bank African Centre for Excellence, Obafemi Awolowo University, Ile-Ife, Nigeria"*. M.Sc. Thesis, Department of Electronic and Electrical Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria; March 2026
8. Ogunpaimo B.A. (Registration Number: 2021009436) *"Loss and Fault Minimization in Electrical Distribution Network through Optimal Placement of Distributed Generation and Shunt Capacitor"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; December 2025
9. Ashiru S.K. (Registration Number: 2022013126) *"Enhancement of Voltage Stability of Power System with Placement of Hybridized Controller Using Improved Strength Pareto Evolution Algorithm"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; November 2025
10. Oseni J.M. (Registration Number: 2021008494) *"Improvement of Power System Protection Scheme for Distribution System with Distributed Generation"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; October 2024
11. Adebiyi O.W. (Registration Number: 2021009387) *"Techno-Economic and Environmental Analysis of Hybrid Energy System for Off-Grid Power System Using Growth Optimizer"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; May 2024
12. Adekunle G.O. (Registration Number: AAA1400399) *"Development of a Line Displacement Detection and Location Device for Electrical Power Systems Distribution Network"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; August 2023

13. Adelusi L.O. (Registration Number: AAA120115). *"Development of Semi-Definite Programing for Optimum Sizing and Location of Distributed Generators on Distribution System"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; February 2023
14. Akintola M.A. (Registration Number: 2017/6695) *"Energy Demand Forecast in Nigeria: A Comprehensive Analysis of Different Forecasting Techniques"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
15. Bankole J.K. (Registration Number: 2017/6692) *"Assessment of Rural Energy Supply in Nigeria for Improved Rural Communities Energy Supply System Using Solar Photovoltaic"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
16. Okaga E.O. (Registration Number: 2017/6666) *"Reliability Assessment of Power Distribution System: Case study of Agbowo 11 kV Sub-Station"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
17. Abiola K.E. (Registration Number: 2020/0432) *"Performance Enhancement of Distribution Network with Distributed Generation Using Genetic Algorithm and Voltage Index"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
18. Adeosun J.A. (Registration Number: 2020/0406) *"Design and Evaluation of Energy Generation System Based on Grid/Solar Energy/Natural Gas Sources for Commercial Building"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
19. Alawode J.O. (Registration Number: 2020/0421) *"Digitization of Energy Production and Consumption in Beverage Industry"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
20. Okpo M.M. (Registration Number: 2020/0422) *"Reliability Assessment of 11 kV Power Distribution System"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
21. Makinde M.O. (Registration Number: 2019/0336) *"Simulation of Solar Photovoltaic and Micro-Gas Power Generating System under Different Dispatch Strategies for Telecommunication Applications"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; May 2022
22. Bakare A.I. (Registration Number: AAA1600067) *"Optimal Placement and Sizing of Distribution Static Synchronous Compensator on Radial Distribution Network Using Particle Swarm Optimization Algorithm"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; January 2022
23. Jimoh A.S. (Registration Number: AAA1500296) *"Optimization of Multi-Regression Algorithm for Demand Size Load Forecasting of Electrical Power Using Salp Swarm Algorithm"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; January 2022
24. Omotosho M.K. (Registration Number: AAA1500043) *"Analysis and Mitigation of the Effect of Distributed Generation on Nigerian Distribution Power System Protection"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; December 2021
25. Abiola J.O. (Registration Number: AAA1500102) *"Development of Modified Internal Model Control-Based Proportional-Integral-Derivative Controller for Controlling Greenhouse Temperature"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; December 2021
26. Ojo B.A. (Registration Number: AAA991010) *"Development of an Extremum Seeking-Based Proportional-Integral-Derivative Controller for Quadcopter Stability Analysis"*. M.Tech.

Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; December 2021

27. Akinjobi S.G. (Registration Number: 2018/PG/0250) *"Optimal Temperature Control in Milk Pasteurization Process Using Proportional-Integral-Derivative Controller"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2020
28. Aina O.A. (Registration Number: 2018/PG/0265) *"Design of a Proportional-Integral-Derivative Controller Based on Level Control of Blending Tank in Cement Plant"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2020
29. Salami H.T. (Registration Number: 2018/PG/0214). *"Voltage Profile Enhancement on the Nigerian 330kV Grid Using Series-Shunt Reactive Power Compensation Technique"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2020
30. Bello N.A. (Registration Number: 2018/PG/0229). *"Simulation of Total Harmonic Distortion in Double Speed Induction Motor"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2020
31. Alabi M.O. (Registration Number: 2018/PG/0230). *"Modelling and simulation of a Dual Channel Active Noise Control System for a 100 MVA Power Transformer Using Filtered-X Least Mean Square Algorithm"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2020
32. Abduulfatah I. (Registration Number: 2017/PG/0186). *"Thyristor-Controlled Series Compensator Location Using Index Method for Mitigating Voltage Collapse"*. M.Eng. Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; July 2020
33. Olabode O.E. (Registration Number: AAA095082). *"Optimal Economic Load Dispatch on the Nigerian 330 kV Grid System Using Firefly Algorithm"*. M.Tech. Thesis, Department of Electronic and Electrical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria; August 2018

Postgraduate Diploma

34. Soremekun K.I. (Registration Number: PEE/P/23/24/0011). *"Reliability Evaluation of a Hybrid Renewable Energy System Using Minimal Cut-Set Approach"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; August 2024
35. Agabanyim C.E. (Registration Number: PEE/P/23/24/0012). *"Performance Comparison of Heart Pulse Rates Monitoring Systems"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; August 2024
36. Ojodare E.S. (Registration Number: PEE/P/23/24/0007). *"Design and Development of Solar Powered Electronic Ultrasonic Cattle Repellent"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; August 2024
37. Alabi S.A. (Registration Number: PEE/P/22/23/0006). *"Reliability Evaluation of a Hybrid Renewable Energy System Using Fault Tree Analysis Approach"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; July 2023
38. Yusuff R.A. (Registration Number: PEE/P/22/23/0010). *"Design and Construction of an Automatic Change-Over Switch With 3-Phase Selection Sequence"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; July 2023
39. Aire E.E. (Registration Number: PEE/P/20/21/0016). *"Reliability Analysis of a Hybrid PV/Wind/Battery System Using Decomposition Approach"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; June

2023

40. Ayemoh S. (Registration Number: PEE/P/20/21/0003). *"Reliability Analysis of a Hybrid PV/Wind/Battery System Using Event Tree Approach"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; June 2023
41. Adeniyi F.A. (Registration Number: PEE/P/20/21/0002). *"Reliability Assessment of a Distribution Sub-Station: A Case Study of Ogun State"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Olabisi Onabanjo University, Ago-Iwoye, Nigeria; June 2023
42. Oludayomi E.O. (Registration Number: 2020/0436) *"Design and Implementation of Micro-Controller Based Intrusion Detector Alert System Using GSM Interface"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
43. Igbokwe K.O. (Registration Number: 2013/3286) *"Design and Implementation of Proportionate Time Response Change-Over Switch"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
44. Olulaja T.A. (Registration Number: 2020/0485) *"Design and Implementation of Grid-Dependent Battery-Inverter Mini-Microgrid System for Residential Applications"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
45. Ojiezele S.O. (Registration Number: 2020/0477) *"Design and Prototyping of an Electric Insect Killer Enhanced with Proportionate Timer and energy Storage"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
46. Oramasionwu S.O. (Registration Number: 2020/0431) *"Design and Implementation of a Bluetooth-Based Home Automation System Using Smartphone"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
47. Emedeke P.O. (Registration Number: 2020/0400) *"Design and Implementation of a Biometric-Based Attendance Monitoring System Using ATMEGA 328P Microcontroller"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
48. Kareem K.A. (Registration Number: 2020/0399) *"Design and Implementation of a Prototype Remote-Controlled Fan Regulator Using Infrared Controller"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; September 2021
49. Adesiyan A.E. (Registration Number: 2019/0304) *"Performance Prediction of Production Line Using Machine Learning Algorithm"*. PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
50. Abdulahi L.S. (Registration Number: 2019/0284) *"Performance Comparison of Optical Character Recognition and an Edge-Based Algorithm in Vehicle License Plate Identification"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
51. Onaiwu I. (Registration Number: 2019/0320) *"Design and Construction of a 1.5 kVA Inverter for Domestic Use"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
52. Olaleye J.O. (Registration Number: 2019/0368) *"Design and Construction of an Automatic Mains Failure Embedded with Manual Ride for Domestic Application"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
53. Ogbonna L.O. (Registration Number: 2019/0313) *"Design and Implementation of a Prototype Automatic Sliding Door for Mitigating Corona Virus Disease 2019 (COVID-19)"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology,

Ota, Nigeria; November 2020

54. Odunodu A.W. (Registration Number: 2019/0342) *"Design and Construction of a Single-Phase Changeover for Household Application"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
55. Hoteyin M.A. (Registration Number: 2019/0273) *"Design and Construction of Modified Sinewave 3.5 kVA Inverter"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
56. Basey A.I. (Registration Number: 2019/0279) *"Development of an Algorithm for Enhancing the Accuracy of a Speech-to-Text System"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020
57. Makinde M.O. (Registration Number: 2019/0336) *"Modelling and Simulation of Characteristics of the Greenhouse"* PGDip Thesis, Department of Electrical and Electronics Engineering, Bells University of Technology, Ota, Nigeria; November 2020

Assessment of Scholarly Portfolios and Publication Corpora of Academics Seeking Promotion

1. ***External Assessor; Covenant University, Ota, Nigeria (2026)***
   Evaluated the research portfolios and publication tracks of an academic seeking promotion to Associate Professor
2. ***External Assessor; Ladoke Akintola University of Technology, Ogbomoso, Nigeria (2026)***
   Evaluated the comprehensive publication corpora and research impact metrics of an academic seeking promotion to Full Professor
3. ***External Assessor; Osun State Polytechnic, Iree, Nigeria (2022)***
   Evaluated the applied research and technical portfolios of an academic seeking promotion to Chief Lecturer

PROFESSIONAL EXPERIENCE

Resource Person **[November 2023]**

Osun State Polytechnic, Iree, Nigeria

Served as a Resource Person in the Pre-Accreditation Inspection Exercise towards affiliation of the Department of Electrical and Electronic Engineering Technology, Osun State Polytechnic, Iree, Nigeria with the Department of Electrical Engineering, University of Ilorin, Ilorin, Nigeria

Co-Researcher on a Continental High-Level Research Team **[July 2017 – July 2019]**

African Union / New Partnership for Africa's Development (AU-NEPAD) Secretariat, Midrand, South Africa

Involved as a Co-Researcher in the Electric Microgrid Research Team of the African Union's High-Level African Panel on Emerging Technologies (APET) anchored by the Secretariat of the New Partnership for Africa's Development – NEPAD (*now known as African Union Development Agency – AUDA*)

Maintenance Engineer **[September 2006 – August 2007]**

Multilink Telecommunication Limited, Victoria Island, Nigeria

As an employee of Multilink Telecommunication Limited, I involved in complete construction of telecommunication Base Transceiver Stations. Meanwhile, my major duty at the organization was to performed routine to moderately complex maintenance of all the Base Transceiver Stations situated within Ibadan (Nigeria) metropolis. In this role, I was part of the operations and maintenance team that was responsible for

- inspecting, diagnosing, and rectifying technical faults on base transceiver stations facilities/equipment
- maintaining documentations (logbooks) on the performances (operations and failures) and maintenances of base transceiver stations facilities/equipment

Class Teacher (Senior Secondary School) **[September 2004 – August 2005]**

National Youth Service Corps, Abuja, Nigeria

During the mandatory National Youth Service year, I worked with Enugu State (in Nigeria) Ministry of Education as a Class Teacher at Senior Secondary School level in Community Secondary School, Neke (Usi-Uzor LGA, Enugu State), Nigeria. I, by this duty

- taught Physics, Mathematics, and Additional Mathematics
- rehabilitated the school's moribund Physics Laboratory and deployed the facility in teaching Physics Practical classes
- taught (informally) Electrical Wiring and Installation as a Skill Acquisition Extra-Curricular Class for Senior Secondary School students

Installation and Maintenance Assistant (Electrical) **[July 2002 – August 2003]**

Nigeria Embroidery Manufacturing Company, Ilupeju, Nigeria

During Students Industrial Work Experience Scheme (SIWES), I involved in routine electrical maintenance works in a garments manufacturing factory

Repairs and Installation Supervisory Technician **[January 1996 – August 1999]**

Adken Technical Company, Sango-Ota, Nigeria

Involved in selection, installation, general maintenance, repairs, and rewinding of domestic and industrial electric motors.

Trainee Electrical Technician **[September 1994 – January 1995]**

Adediran Steel and Wire Industries Limited, Ilesa, Nigeria

During Students Industrial Work Experience Scheme (SIWES), I involved in rotuine maintenance of electrical machines, electronic devices, control circuitry, and lighting installations.

GRANTSMANSHIPS / FELLOWSHIPS / SPONSORSHIPS

Fellowship – Carnegie Corporation of New York (CCNY), USA **[2024]**

Grant Identification:	PS00241632 (Project ID)
Worth:	Eighteen Thousand Five Hundred and Fifty Dollar ($18,550:00) only
Type:	Carnegie African Diaspora Fellowship Program (CADFP)
Status:	Host Fellow *[hosted at Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria]*

Travel Grant – Tertiary Education Trust Fund (TETFund), Nigeria **[2018]**

Grant Identification:	REG/ADM/ETF/29/VOL.4/025
Worth:	One Million and Twenty-Seven Thousand Naira (₦1,027,000:00) only
Conference Name:	7th International Conference on Clean and Green Energy, 7th – 9th February 2018, Paris, France.
Status:	Lead Author/Presenter of a Paper Titled '*Simulation of Load-Sharing in Standalone Distributed Generation System'*

Fellowship – Carnegie Corporation of New York (CCNY), USA **[2017]**

Grant Identification:	PS00241632 (Project ID)
Worth:	Twenty-One Thousand Two Hundred and Fifty Dollar ($21,250:00) only
Type:	Carnegie African Diaspora Fellowship Program (CADFP)
Status:	Host Fellow [hosted at Osun State University, Osogbo, Nigeria]

Research Grant – Tertiary Education Trust Fund (TETFund), Nigeria **[2015]**

Grant Identification:	TETFund/ UNIOSUN/15/0010
Worth:	One Million Three Hundred Thousand Naira (₦1,300,000:00) only
Title of Research:	Investigation of the Thermo-Electric Potential of Cocoa Pod Husk / Kolanut Pod Husk Blends as Biofuel Material for Electric Power Generation.
Status:	Principal Investigator

Sponsorship (Academic Staff Training and Development Intervention) – Tertiary Education Trust Fund (TETFund), Nigeria [2012]

Grant Identification:	TETF/ES/AST&D/OSU/OSOGBO/Vol. 1
Worth:	Three Million Two Hundred and Ninety-Six Thousand Naira (₦3,296,000:00) only
Title:	Sponsorship for Exchange Visit at Tennessee Technological University, Cookeville, TN, USA
Status:	Visiting Research Scholar

Sponsorship (Academic Staff Training and Development Intervention) – Education Trust Fund (ETF), Nigeria [2011]

Grant Identification:	REG/ADM/ETF/29/88
Worth:	One Million Five Hundred Thousand Naira (₦1,500,000:00) only
Title:	Intervention Grant for Doctoral Degree Training at Obafemi Awolowo University, Ile-Ife, Nigeria
Status:	Doctoral Student

Fellowship (Osun State University's Special Doctoral Staff Training Fellowship) – Osun State University, Nigeria [2007]

Grant Identification:	UNIOSUN/SDSTP/98
Worth:	Six Hundred and Forty-Eight Thousand Naira (₦648,000:00) only
Title:	Grant for Master's Degree Training at Obafemi Awolowo University, Ile-Ife, Nigeria
Status:	Master's Student

HONOURS / AWARDS / DISTINCTIONS / RECOGNITIONS / APPRECIATIONS

2026 **Distinguished Academic Excellence and Engineering Leadership Award**. Presented by the Osogbo State chapter of the Nigerian Institute of Electrical and Electronic Engineers (NIEEE) in recognition and appreciation of outstanding contribution to engineering education, academic leadership, and research advancement ***(Plaque)***

2025 **Award of Honours**. Presented by the Osun State University's chapter of the Nigerian Universities Engineering Students' Association (NUESA) in recognition of visionary leadership provided for the Faculty of Engineering as the Dean of the faculty ***(Plaque)***

2025 **Good Leadership Award**. Presented by the School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria in recognition of outstanding support and contribution as the Convener/Host for the 1st OAUSTECH International Conference on Engineering and Technology (OICET 2025) ***(Plaque)***

2025 **Award of Excellence**. Presented by the Olusegun Agagu University of Science and Technology's chapter of the Nigerian Universities Engineering Students' Association (NUESA) in recognition of excellent leadership provided for the School of Engineering and Engineering Technology as the Dean of the school ***(Plaque)***

2025 **Outstanding Stewardship Award**. Presented by the Youth Fellowship of the Apostolic Gospel Church Nigeria in recognition of outstanding contributions and supports for the youth ***(Plaque)***

2023 **Appreciation by the Vice-Chancellor of the University of Ilesa, Ilesa, Nigeria**. For donation to the university's library, copies of a co-authored book titled: *Fundamental Principles and Applications of Electrical Machines (with Series of Worked Examples)* ***(Letter)***

2018 **Appreciation and Commendation by the Vice Chancellor of the Osun State University, Osogbo, Nigeria.** For a job well done as the Deputy Director of the university's Directorate of Academic Planning ***(Letter)***

2018 **Award of Honours.** By the Association of Electrical and Electronics Engineering Students, Osun State College of Technology, Esa-Oke, Nigeria, in recognition of contributions towards the Association and the Department of Electrical and Electronics Engineering, Osun State College of Technology, Esa-Oke, Nigeria as an Alumnus of the Department ***(Plaque)***

2005 **Recognition of Outstanding Performance in Community Service**. By the National Youths Service Corps (NYSC) ***(Certificate)***

2005 **Recognition of Exemplary Performance as Zonal Coordinator**. By the Nigerian Christian Corpers' Fellowship (NCCF) ***(Certificate)***

1995 **Honours and Recognition of Exemplary Service, Leadership and Outstanding Contributions as the Pioneer General Secretary**. Presented by the Association of Electrical and Electronics Engineering Students, Osun State College of Technology, Esa-Oke, Nigeria ***(Certificate)***

UNPUBLISHED SCHOLARLY CONTRIBUTIONS

Theses / Dissertations / Projects

1. Ajewole T.O. *"Assessment of the Effectiveness of E-Learning in Nigerian Secondary Schools during COVID-19 Lockdown: A Case Study of Ife-East Local Government Area of Osun State"*, PGDip Edu Thesis, National Teachers' Institute collaborated with Centre for Affiliated Institutions, University of Ilorin, Ilorin, Nigeria; September 2020
2. Ajewole T.O. *"Modelling and Simulation of a Hybrid-Source Autonomous Electric Microgrid"*, PhD Dissertation, Department of Electronic and Electrical Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria; September 2014
3. Ajewole T.O. *"Fault Analysis on Grid-Integrated Photovoltaic Power System"*, M.Sc. Thesis, Department of Electronic and Electrical Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria; January 2010
4. Ajewole T.O. *"Design and Construction of a 20-Watt Audio Amplifier"*, B.Eng. Final Project Report, Department of Electrical and Computer Engineering, Federal University of Technology, Minna, Nigeria; September 2003
5. Ajewole T.O. *"Construction of a Window Comparator Using Operational Amplifiers"*, NDip Final Project Report, Department of Electrical and Electronics Engineering, Osun State College of Technology, Esa-Oke, Nigeria; December 1995

Professional Technical Reports

6. Ajewole T.O. *"Report on Professional Experience"*, Submitted to the Board of Fellows, Nigerian Society of Engineers (NSE) for Conferment as a Fellow of the society; July 2024
7. Ajewole T.O. *"Report of Work Experience"*, Submitted to the Board of Fellows, Nigerian Institute of Electrical and Electronic Engineers (NIEEE) for Conferment as a Fellow of the institute; May 2023
8. Ajewole T.O. *"Post-Graduation Work Experience"*, Submitted to the Council for the Regulation of Engineering in Nigeria (COREN) for Certification as a Registered Engineer; March 2011
9. Ajewole T.O. *"A Technical Report on Post-Graduation Work Experience"*, Submitted to the Nigerian Society of Engineers (NSE) for Professional Registration as a Corporate Member of the society; March 2011
10. Ajewole T.O. *"Report on Students Industrial Work Experience Held at Nigeria Synthetic Fabrics Limited, Ilupeju Industrial Estate, Lagos, Nigeria"*, Submitted to the Department of Electrical and Computer Engineering, Federal University of Technology, Minna, Nigeria; September 2002
11. Ajewole T.O. *"Technical Report on Students Industrial Work Experience Held at Adediran Steel and Wire Industries Limited, Ilesa, Nigeria"*, Submitted to the Department of Electrical and Electronics Engineering, Osun State College of Technology, Esa-Oke, Nigeria; September 1994

PEER-REVIEWED PUBLICATIONS

Authored Book:

1. Omoigui M.O., **Ajewole T.O.** and Ariyo F.K. (2023). *Fundamental Principles and Applications of Electrical Machines (with series of worked examples)*. Ile-Ife, Nigeria: Obafemi Awolowo University Press, ISBN: 978-978-136-114-2 ***[Published by: Obafemi Awolowo University, Nigeria]***

Chapters-in-Book:

2. **Ajewole T.O.**, Olabode O.E., Ariyo F.K., Akinyele D.O., Okakwu I.K. and Omoniyi E.B. (2023). Conceptual Perspective of Renewable Energy Resources: A Paradigm Shift in Combating World Climate Change. In A. Vaish, P.K. Goswami, S. Bhatia and M. Shouran (Eds.). *Adaptive Power Quality for Power Management Units Using Smart Technologies (pp 67 – 103)*, Boca Raton, FL: Taylor and Francis, ISBN: 978-1-003-43646-1, https://doi.org/10.1201/9781003436461-3 ***[Published by: Taylor and Francis, USA]***
3. Akinyele D.O., **Ajewole T.O.**, Olabode O.E. and Okakwu I.K. (2023). Overview and Comparative Application of On-Grid and Off-Grid Renewable Energy Systems in Modern-Day Electrical Power Technology. In A. Vaish, P.K. Goswami, S. Bhatia and M. Shouran (Eds.). *Adaptive Power Quality for Power Management Units Using Smart Technologies (pp 25 – 65)*, Boca Raton, FL: Taylor and Francis, ISBN: 978-1-003-43646-1, https://doi.org/10.1201/9781003436461-2 ***[Published by: Taylor and Francis, USA]***

Articles in Learned Journals:

4. Ojuola B.M., **Ajewole T.O.**, Olawuyi A.A., Atilola O.F., Onarinde O. (2026). Comparative Behaviour of Pressure Ratio, Thermal Differential and Vibration Signatures Across Multiple Industrial Gas Turbine Units. *UNIOSUN Journal Engineering and Environmental Science, 8(2), 233 – 243, https://doi.org/10.64980/ujees.v8i2.018* ***[Published by: Faculty of Engineering and Faculty of Environmental Science, Osun State University, Nigeria]***
5. **Ajewole T.O.**, Olisa O.V., Oladepo O., Amole A.O. and Olabode O.E. (2026) Performance Assessment of a Solar Photovoltaic and Biogas Hybrid Renewable Energy System Under a Combined Dispatch Strategy. *Cureus Journal of Engineering, 3(es44388-026-00313-1), 1 – 26, https://doi.org/10.7759/s44388-026-00313-1* ***[Published by: Springer Nature, Germany]***
6. Atilola O.F., **Ajewole T.O.**, Olawuyi A.A. and Ojuola B.M. (2026). Design of an Optimal Energy Management System of a Grid-Tied Electric Microgrid. *Journal of Modern Trends in Electrical Engineering Research and Practice, 1(1), 72 – 80* ***[Published by: Osogbo Chapter of the Nigerian Institute of Electrical and Electronic Engineers (NIEEE), Nigeria]***
7. Oyewale O.J., Olawuyi A.A., Ojuola M.B., Abdulafeez A.A. and **Ajewole T.O.** (2026). Comparative Analysis of Machine Learning Models for Predicting Steam Turbine Rotor Vibration Using Operational Data from a Nigerian Thermal Power Plant. *UNIOSUN Journal Engineering and Environmental Science, 8(2), 31 – 41, https://doi.org/10.36108/ujees/4202.60.0270* ***[Published by: Faculty of Engineering and Faculty of Environmental Science, Osun State University, Nigeria]***
8. Ojuola B.M., **Ajewole T.O.**, Adetoro A.A. and Adeyemo G.O. (2026). Condition-Based Reliability Ranking of Gas Turbine Units Multi-Parameter Condition Monitoring: A Case Study of a Nigerian Power Plant. *Journal of Modern Trends in Electrical Engineering Research and Practice, 1(1), 33 – 43* ***[Published by: Osogbo Chapter of the Nigerian Institute of Electrical and Electronic Engineers (NIEEE), Nigeria]***
9. Afolalu O.F., Awofolaju T.T., Olla M.O., Adeagbo F.M., Olawuyi A.A., Bada O.M., Lawal M.O., Alawode K.O., Lasisi H.O. and **Ajewole T.O.** (2026). Enabling the 6G Digital Revolution Through Cell-Free Networks: Performance Gains Over Conventional Cellular Architectures. *UNIOSUN Journal Engineering and Environmental Science, 8(2), 223 – 232, https://doi.org/10.64980/ujees.v8i2.017* ***[Published by: Faculty of Engineering and Faculty of Environmental Science, Osun State University, Nigeria]***

10. Alamu O.J., Kosiru Y.A., **Ajewole T.O.** and Oladepo O. (2026). Energy Optimization in Monofacial Photovoltaic Panels Using Machine Learning Based Hybrid Air-Water Cooling Strategy. *Journal of Science and Technology, 31(7), 31 – 41, https://doi.org/10.20428/jst.v31 i7.3869* ***[Published by: University of Science and Technology, Yemen]***
11. Ajayi O.C., Alawode O.K., Adeleke O.J. and **Ajewole T.O.** (2026). Solution of Multi-Objective Optimal Power Dispatch Using NSGA-III for Future Reliability Screening. *Measurement: Energy, 11, 1 – 14, https://doi.org/10.1016/j.meaene.2026.100109* ***[Published by: Elsevier, UK]***
12. Olukayode O., Ojerinde J.B, **Ajewole T.O.**, Adedeji W.O. and Imbre O. (2026). Design of a PET Plastic-Loop Robotic Griper with a Soft-Rigid Palm for Adaptive and Enveloping Grasping. *FME Transactions, 54(1), 174 – 183, https://doi.org/10.5937/fme26011740* ***[Published by: Faculty of Mechanical Engineering, University of Belgrade, Serbia]***
13. **Ajewole T.O.**, Olukayode O., Hassan K.A. and Agboola M.K. (2026). Operational Improvement of Hybrid-Source Microgrid Using Unified Power Quality Conditioner Optimized with Reinforcement Learning Brainstorm Algorithm. *Journal of Electrical Systems and Information Technology, 13(6), 1 – 23, https://doi.org/10.1186/s43067-025-00301-1* ***[Published by: Springer Nature, Germany]***
14. Olawuyi A.A., Atilola O.F., Ojuola M.B., Adeyemo G.O., **Ajewole T.O.**, Momoh O.D. and Omoigui M.O. (2025). Modelling and Simulation of a Standalone Wind Turbine System Using MATLAB/Simulink for Performance Optimization. *OAUSTECH Journal of Engineering and Intelligent Technology, 1(2), 1 – 10, https://doi.org/10.5281/zenodo/17383429* ***[Published by: School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Nigeria]***
15. Awofesobi P.K., **Ajewole T.O.** and Olawuyi A.A. (2025). Design and Implementation of a Multi-Switching Contactless Solution Using RF and Wi-Fi Control for Smart Automation. *Journal of Energy and Safety Technology, 8(2), 104 – 112, https://doi.org/10.11113/jest.v8.229* ***[Published by: Universiti Teknologi Malaysia, Malaysia]***
16. Hassan K.A., Agboola M.K., **Ajewole T.O.** and Olukayode O. (2025). Performance Comparison of Proportional-Integral and RLBSO-ANN Controllers in Microgrid Power Quality Enhancement and Loss Reduction Under Voltage Disturbances. *OAUSTECH Journal of Engineering and Intelligent Technology, 1(1), 192 – 204, https://doi.org/10.36108/ojeit/520 2.10.0112* ***[Published by: School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Nigeria]***
17. **Ajewole T.O.**, Adeyemo G.O., Oladepo O., Olawuyi A.A. and Hassan K.A. (2025). Enhancing Energy Security: Development of an Advanced AI-Based Energy Theft Detection Models Using Smart Meter Data. *OAUSTECH Journal of Engineering and Intelligent Technology, 1(1), 176 – 185, https://doi.org/10.36108/ojeit/5202.10.0191* ***[Published by: School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Nigeria]***
18. Agboola M.K., Hassan K.A, **Ajewole T.O.** and Oyelami S. (2025). Enhancement of Power Quality of Microgrid-Connected Wind Energy System Using Artificial Neural Network-Based Tip Speed Ratio Control. *OAUSTECH Journal of Engineering and Intelligent Technology, 1(1), 22 – 30, https://doi.org/10.36108/ojeit/5202.10.0130* ***[Published by: School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Nigeria]***
19. **Ajewole T.O.**, Adeleye A.O. and Abdul-Lateef A.O. (2024). Adaptive Overcurrent Distribution Protection Scheme Coordination in the Presence of Distributed Generation Using Artificial Neural Network. *Journal of Engineering Studies and Research, 30(2), 7 – 21, https://doi.org/10.29081/jesr.v30i2.001* ***[Published by: University of Bacau, Romania]***
20. Olawuyi A.A., **Ajewole T.O.**, Oladepo O. and Awofolaju T.T. (2024). Development of an Optimized Neural Network Using Hyper-Parameters Optimization for Electrical Load

Prediction. *ELEKTRIKA - Journal of Electrical Engineering, 23(3), 61 – 66, https://doi.org/ 10.11113/elektrika.v23n3.591* ***[Published by: Universiti Teknologi Malaysia, Malaysia]***

21. Olabode O.E., Akinyele D.O., **Ajewole T.O.**, Omogoye S.O. and Raji A.A. (2024). Impact of Integrating Type-1 Distributed Generation on Distribution Network Using Modified Genetic Algorithm and Voltage Stability Index: A Technical and Cost-Benefit Analysis Approach. *Journal of Engineering and Applied Science, 71, 1 – 50, https://doi.org/10.1186/s44147 -024-00561-0* ***[Published by: Springer Nature, Germany]***
22. Olawuyi A.A., **Ajewole T.O.**, Oladepo O., Awofolaju T.T., Agboola M.K. and Hasan K.A. (2024). Development of an Optimized Support Vector Regression Model Using Hyper-Parameters Optimization for Electrical Load Prediction. *UNIOSUN Journal of Engineering and Environmental Studies, 6(2), 76 – 85, https://doi.org/10.36108/ujees/4202.60.0270* ***[Published by: Faculty of Engineering and Faculty of Environmental Science, Osun State University, Nigeria]***
23. Somefun T.E., Abdulkareem A., Somefun C., Popoola O. and **Ajewole T.O.** (2024). Strategic DG Placement and Sizing in Developing Nation's Power System Using ISNT and Modified Forward-Backward Sweep. *Engineering Research Express, 6(3) https://doi.org/10.1088/2631 -8695/ad6fef.* ***[Published by: Institute of Physics (IOP) Publishing, England]***
24. Olabode O.E., Akinyele D.O., **Ajewole T.O.**, Omoniyi E.B. and Adebajo A.A. (2024). Comparative Analysis of Energy-Saving Capabilities of Direct-on-Line, Star/Delta and Variable Speed Drive Starter Under Different Operational Phases. *FUW Trends in Science & Technology Journal, 9(2), 174 – 180* ***[Published by: Federal University, Wukari, Nigeria]***
25. Lasisi H.O., Adebayo K.A., Alawode K.O., Surajudeen-Bakinde N.T. and **Ajewole T.O.** (2024). A Levenberg-Marquardt Based Neural Network Spectrum Occupancy Prediction for UHF (470 – 670) MHz Band Services in Osogbo Metropolis. *University of Pitesti Scientific Bulletin: Electronics and Computers Science, 24(1), 75 – 84* ***[Published by: University of Pitesti, Romania]***
26. Olabode O.E., **Ajewole T.O.**, Akinyele D.O. and Ariyo F.K. (2024). Energy Saving Analysis on Distribution Network with Incorporation of D-STATCOM Using Power Loss Index and Firefly Algorithm. *Jurnal Ilmiah Teknik Elektro Komputer dan Informatika, 10(2), 313 – 331, https://doi.org/10.26555/jiteki.v10i2.28862* ***[Published by: Universitas Ahmad Dahlan, Indonesia]***
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95. Olabode O.E, **Ajewole T.O.**, Okakwu I.K. and Obanisola O.O. (2019). A Review of Cuckoo Search Algorithm Based Optimal Sitting and Sizing of Shunt Capacitors in Radial Distribution Systems. *UNIOSUN Journal of Engineering and Environmental Sciences, 1(2), 48 – 57, https://doi.org/10.36108/ujees/9102.10.0260* ***[Published by: Faculty of Engineering and Environmental Science, Osun State University, Nigeria]***

Refereed Conference Proceeding Articles:

96. Atilola O.F., **Ajewole T.O.** and Olawuyi A.A. (2026). Development of an Optimal Energy Management System in a Microgrid. In the *Proceedings of 22nd NIEEE International Conference and Exhibition on Power and Telecommunication, October 12 – 16, Port Harcourt, Nigeria, pp. 24 – 33* ***[Published by: Nigerian Institute of Electrical and Electronic Engineers (NIEEE), Nigeria]***
97. Olabode O.E., **Ajewole T.O.**, Okakwu I.K., Akinyele D.O. and Ariyo F.K. (2023). Injection of Reactive Power Support for Enhanced Performance of Radial Distribution Network. In the *Proceedings of the 2023 IEEE International Conference on Science, Engineering and Business for Driving Sustainable Development Goals, April 5 – 7, Omu-Aran, Nigeria, pp. 1 – 15, Available in IEEE Xplore Digital Library, https://doi.org/10.1109/SEBSDG57117.2023. 1012 4493* ***[Published by: Institute of Electrical and Electronic Engineers (IEEE), USA]***
98. **Ajewole T.O.**, Olaoye B.O., Olabode O.E., Akinyele D.O. and Okakwu I.K. (2021). Development of Cordless Power Transfer Pack for Smart Charging. In the *Proceedings of the 2nd International Conference on Engineering and Environmental Sciences, November 23 – 25, Osogbo, Nigeria, pp. 284 – 292* ***[Published by: Faculty of Engineering and Faculty of Environmental Sciences, Osun State University, Nigeria]***
99. Olabode E.O., Amole O.A., **Ajewole T.O.** and Okakwu I.K. (2020). Medium-Term Load Forecasting in a Nigerian Electricity Distribution Region Using Regression Analysis Techniques. In the *Proceedings of the IEEE International Conference on Mathematics, Computer Engineering and Computer Science, March 18 – 21, Ayobo, Nigeria, pp. 1 – 4, Available in IEEE Xplore Digital Library, https://doi.org/10.1109/ICMCECS47690.2020.240 907* ***[Published by: Institute of Electrical and Electronic Engineers (IEEE), USA]***

100. **Ajewole T.O.**, Lawal M.O., Alawode K.O. and Omoigui M.O. (2019). Rotor Angle Dynamics in Multi-Machine Grid-Independent District Minigrid. In the *Proceedings of the 1st International Conference on Engineering and Environmental Sciences, November 5 – 7, Osogbo, Nigeria, pp. 776 – 784* ***[Published by: Faculty of Engineering and Environmental Sciences, Osun State University, Nigeria]***

101. **Ajewole T.O.**, Alawode K.O., Oyekanmi W.A., Momoh O.D. and Omoigui M.O. (2019). A Performance Assessment of the Distribution Sub-System in the Nigerian Deregulated Power Sector. In the *Proceedings of the IEEE 6th Power-Africa International Conference, August 20 – 23, Abuja, Nigeria, pp. 1 – 5, Available in IEEE Xplore Digital Library, https://doi.org/10. 1109/PowerAfrica.2 019.8928916* ***[Published by: Institute of Electrical and Electronic Engineers (IEEE), USA]***

102. **Ajewole T.O.**, Craven P.M.R., Kayode O. and Babalola O.S. (2018). Simulation of Load-Sharing in Standalone Distributed Generation System. In the *Proceedings of the 7th International Conference on Clean and Green Energy, February 7 – 9, Paris, France, pp. 108 – 115, https://doi.org/10.1088/1755-1315/154/1/012014* ***[Published by: Institute of Physics (IoP), UK]***

103. Oyekanmi W.A., Radman G., Babalola A.A. and **Ajewole T.O.** (2014). Effect of STATCOM on the Critical Clearing Time of Faults in Multi-Machine Power Systems during Transient Stability Analysis Studies. In the *Proceedings of the IEEE 6thInternational Conference on Adaptive Science and Technology. October 29 – 31, Ota, Nigeria, pp. 301 – 306, Available in IEEE Xplore Digital Library, https://doi.org/10.1109/ICASTECH.2014.7068070* ***[Published by: Institute of Electrical and Electronic Engineers (IEEE), USA]***

104. Oyekanmi W.A., Radman G., Babalola A.A. and **Ajewole T.O.** (2014). Power System Simulation and Contingency Ranking Using Load Bus Voltage Index. In the *Proceedings of the IEEE 11th International Conference on Electronics, Computer and Computation, September 29 – October 1, Abuja, Nigeria, pp. 135 – 138, Available in IEEE Xplore Digital Library, https://doi.org/10.1109/ICECCO.2014.6997553* ***[Published by: Institute of Electrical and Electronic Engineers (IEEE), USA]***

Non-Refereed Conference Article:

105. Olawuyi A.A., Atilola O.F., Ojuola M.B., Adeyemo G.O., **Ajewole T.O.**, Momoh O.D. and Omoigui M.O. (2025). Modelling and Simulation of a Standalone Wind Turbine System Using MATLAB/Simulink for Performance Optimization. *Book of Abstract, 1st OAUSTECH International Conference on Engineering and Engineering Technology, July 15 – 17, p. 2* ***[Published by: School of Engineering and Engineering Technology, Olusegun Agagu University of Science and Technology, Nigeria]***

Technical Report:

106. Nyirenda-Jere T., **Ajewole T.O.**, Mutale J., Dauenhauer P. and Ambali A. (2018). Microgrids: Empowering Communities and Enabling Transformation in Africa. *A Report by the African Union's High-Level African Panel on Emerging Technologies (APET). Available at* https://www.nepad.org/filedownload/download/public/114349 ***[Published by: African Union / New Partnership for Africa's Development (AU/NEPAD), South Africa]*** *{NEPAD is now known as African Union Development Agency – AUDA}*

Patents and Inventions:

107. Olukayode O., **Ajewole T.O.**, Adedeji M.A. and Adeboye B.O. (2023). *Screw Actuated Folding Crane*. Nigeria Trademarks, Patents and Designs Registry. Registration Number: F/PT/NC/2023/7681 ***[Patented by: Trademarks, Patents and Designs Registry; Commercial Law Department; Federal Ministry of Industry, Trade and Investment; Nigeria]***

POSTGRADUATE STUDIES SUPERVISED

Doctor of Philosophy

1. Dr Akintola M.A. *"Development of Optimal Tap-Setting for On-Load Tap-Changer Transformer and Placement of Shunt Capacitor on Transmission System Using Modified Taguchi Approach"*. PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; September 2026
2. Dr Olisa V.O. *"Development of Energy Management Algorithm for Dynamic Operation of Grid-Connected Microgrid Systems Using Combined Dispatch Strategies"*. PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; September 2026
3. Dr Hassan K.A. *"Improvement of Power Quality on Hybrid-Source Microgrid Using Unified Power Quality Conditioner Controlled by Reinforcement Learning Brainstorm Optimization Algorithm"*, PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; August 2025
4. Dr Agboola M.K. *"Enhancement of Power Quality for Microgrid-Connected Wind Energy System Using Artificial Neural Network Based Tip Speed Ratio Controller"*, PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; August 2025
5. Dr Olawuyi A.A. *"Development of Hybrid Machine Learning Model with Optimized Hyper-Parameters for Electrical Load Prediction"*, PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; August 2024
6. Dr Adeleye A.O. *"Investigation of Power System Enhancement Using Combined Optimally-Penetrating Distributed Generation and Artificial Neural Network-Based Adaptive Overcurrent Protection Scheme"*, PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; April 2024
7. Dr Awofolaju T.T. *"Development of Prediction Models for Mobile Telecommunications Operators' Quality of Service Using Ensemble and Artificial Neural Networks Techniques"*, PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; March 2024 ***[co-supervised]***
8. Dr Olabode O.E. *"Performance Evaluation of PV-System and D-STATCOM Hybrid on the Nigerian Radial Distribution Network for Power Loss Minimization Using Power Loss Index and Firefly Algorithm"*, PhD (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; August 2023

Masters by Research (Academic Masters)

9. Oyewale O.J. *"Comparative Analysis of Machine Learning Models for Predicting Steam Turbine Rotor Vibration: A Nigerian Thermal Power Plant Study"*. M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; September 2026
10. Abdulhafeez A.A. *"Performance Assessment of Supervised Machine Learning Algorithms for Medium-Term Load Forecasting"*. M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; September 2026
11. Adeyemo G.O. *"Development of Advanced AI-Based Energy Theft Detection Models Using Smart Meter Data"*. M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; September 2026
12. Kayode O.M. *"Intelligent Fault Detection and Classification in Nigerian Distribution Networks Using Discrete Wavelet Transform and Convolutional Neural Networks"*. M.Eng. (Electrical and Electronic Engineering) Awarded by Adeleke University, Ede, Nigeria; June 2026
13. Bulus S.K. *"Optimal Placement and Sizing of Solar Photovoltaics in Nigerian Distribution System"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Adeleke University, Ede, Nigeria; June 2025
14. Bakare A.A. *"Optimal Allocation of Distributed Generation for Power Loss Reduction and Voltage Improvement"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Adeleke University, Ede, Nigeria; June 2025

15. Ojuola B.M. *"Prediction of Turbine Rotor Vibration in Steam Power Plant Using Machine Learning: A Case Study of Egbin Thermal Plant"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; April 2024
16. Balogun A.B. *"Optimal Sizing and Placement of Distributed Generation on Distribution Network"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; February 2023
17. Alao A.O. *"Modelling of Hybrid Energy System for Osun State Broadcasting Corporation"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; December 2021
18. Hassan K.A. *"Optimal Sizing of Hybrid Photovoltaic and Diesel Generator with Energy Storage System"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; December 2021
19. Agboola M.K. *"Improvement of Wind Energy Conversion System Using Neural Network-Based Pitch Angle Control Mechanism"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; December 2021
20. Onarinde O. *"A Study on Intelligent Maintenance of Thermal Power Plant Vacuum Condenser"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; December 2021
21. Olawuyi A.A. *"A Comparative Study on the Performances of Power Systems Load Forecasting Algorithms"*, M.Eng. (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; December 2021

Postgraduate Diploma

22. Olaoye O.B. *"Development and Implementation of Wireless Mobile Phone Charger"*, PGDip (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; August 2022
23. Abdullahi I.O. *"Extraction of Bioethanol from Cocoa Pod for Electricity Generation"*, PGDip (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; May 2019
24. Adeniran A.O. *"Reliability Analysis of Electrical Distribution System"*, PGDip (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; March 2018
25. Salami A.W. *"Reliability Analysis of Electrical Distribution System"*, PGDip (Electrical and Electronic Engineering) Awarded by Osun State University, Osogbo, Nigeria; March 2018

CURRENT RESEARCH IN PROGRESS

On-Going Research

1. Performance Comparison on the Use of Artificial Intelligence Based Controllers in Electric Microgrid Systems
2. Enhancement of Electric Power Plant Performance Using Artificial Intelligence Based Fault Detection and Predictive Maintenance
3. Artificial Intelligence Based Fault Detection and Isolation on Electric Power Transmission and Distribution Sub-Systems

On-Going Supervision of Postgraduate Research

Doctoral Research

1. Kosiru Y.A. *"Optimization of Energy Efficiency in Monofacial Solar Panel Using Machine Learning-Based Dynamic Cooling and Adaptive Load Management"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria
2. Atilola O.F. *"Assessment of Optimal Energy Management System in Microgrid Using Hybrid of Lyrebird Optimization and Particle Swarm Optimization Algorithms"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria

3. Onarinde O. *"Development of Customized Early Fault Warning System for Power Plant Boilers Using Artificial Neural Network and Ensemble Learning"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria
4. Ojuola M.B. *"Development of a Machine Learning Based Failure Prediction Approach to Compressor Maintenance in Gas Turbine Operations"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria
5. Bakare A.A. *"Optimal Distributed Generation Planning in Electric Power Network with Consideration for Energy Storage System Using a Hybrid of Genetic Algorithm-Water Cycle Optimization Approach"*. Department of Electrical and Electronics Engineering, Adeleke University, Ede, Nigeria
6. Rasheed S.O. *"Development of an AI-Driven Self-Adaptive Protection and Optimization Framework for Distributed Generation-Based Smart Microgrid"*. Department of Electrical and Electronics Engineering, Adeleke University, Ede, Nigeria
7. Adeyemi F.F. *"Performance Analysis and Exergo-Economic Optimization of a Hybrid Wind-Concentrated Photovoltaic/Thermal-Hydrogen System for Microgrid Using Enhanced Nutcracker Algorithm"*. Department of Mechanical Engineering, Osun State University, Osogbo, Nigeria ***[co-supervising]***
8. Owolabi O.O. *"Development of Hybrid SqueezeNet–MobileNet–SSD for Robust Human Detection on Edge Surveillance"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria ***[co-supervising]***
9. Ojekunle E.O. *"Development of an Autonomous PV-Wind-Diesel Hybrid System with Hybrid Flywheel-Battery Based Storage Energy Management for Rural Electrification"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria
10. Suara S.A. *"Development of Loss Minimization and Reliability Enhancement Framework for Distribution Networks Using Hybrid of Improved Multi-Objective Firefly Algorithm and Deep Reinforcement Learning"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria

Master's Research

11. Akinbola H.B. *"Optimal Capacitor Placement and Sizing in Distribution System Using Harmattan Savanah Drought Algorithm"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria
12. Jimoh A.A. *"Design and Characterization of an Affordable High-Efficiency Cameraless Multi-Rotor Experimental Platform for Autonomous Task-Specific Tactical Logistics in Nigeria"*. Department of Electrical and Electronic Engineering, Osun State University, Osogbo, Nigeria

COMMUNITY SERVICES

Local

1. Volunteer Pastor / General Secretary, Apostolic Gospel Church [2006/2013 to date]
2. Acting Provost *(Part-Time and Non-Remunerated)*, Logos International Theological College, Ilesa, Nigeria [2017 – 2023]
3. General Secretary, Isaobi Progressive Union (IPU), Isaobi-Ijesa, Atakunmosa-West LGA, Osun, Nigeria [2013 – 2023]

National

4. Member, Committee of Deans of Engineering and Technology (CODET) of Nigerian Universities [2024 to date]
5. Principal Facilitator, National Population Commission's Workshop Series for Census Functionaries Trainers in Respect of the Proposed 2023 National Population and Housing Census [2022 – 2023]
6. National Youth Service Corps [2004 – 2025]

International

7. Co-Researcher, Electric Microgrid Research Team of the African Union's High-Level African Panel on Emerging Technologies [APET]. Anchored by the Secretariat of the New Partnership for Africa's Development – NEPAD *(now known as: African Union Development Agency – AUDA)*, Midrand, South Africa [2017 – 2019]
8. Alumnus, Carnegie African Diaspora Fellowship Program (CADFP) of the Carnegie Corporation of New York – CCNY *(now known as: Andrew Carnegie Corporation – ACC)*, New York, USA [2017 to date]

ATTENDANCE OF CONFERENCES / SEMINARS / WORKSHOPS / RETREATS / SUMMITS / COLLOQUIA

Attendance and Participation with Paper Presentation

1. ***Nigerian Institute of Electrical and Electronic Engineers (NIEEE) 22nd International Conference and Exhibition on Power and Telecommunication***
   12th – 16th October 2026
   Golden Tulip Hotel, Ken Sarowiwa (Stadium) Road, Rumuomasi, Port Harcourt, Nigeria
   Paper Presented: *Development of an Optimal Energy Management System in Electric Microgrid*
2. ***1st OAUSTECH International Conference on Engineering and Technology***
   15th – 17th July 2025
   University Auditorium, Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria
   Paper Presented: *Modelling and Simulation of a Standalone Wind Turbine System Using MATLAB/Simulink for Performance Optimization*
3. ***2023 Institute of Electrical and Electronic Engineers (IEEE) International Conference on Science, Engineering and Business for Driving Sustainable Development Goals***
   7th – 9th April 2023
   International Conference Centre, Landmark University, Omu-Aran, Nigeria
   Paper Presented: *Injection of Reactive Power Support for Enhanced Performance of Radial Distribution Network*
4. ***2nd International Conference on Engineering and Environmental Sciences***
   23rd – 25th November 2021
   Olagunsoye Oyinlola Auditorium, Osun State University, Osogbo, Nigeria
   Paper Presented: *Development of Cordless Power Transfer Pack for Smart Charging*
5. ***Institute of Electrical and Electronic Engineers (IEEE) International Conference on Mathematics, Computer Engineering and Computer Science***
   18th – 21st March 2020
   University Conference Centre, Anchor University, Ayobo, Nigeria
   Paper Presented: *Medium-Term Load Forecasting in a Nigerian Electricity Distribution Region Using Regression Analysis Techniques*
6. ***1st International Conference on Engineering and Environmental Sciences***
   5th – 7th November 2019
   Olagunsoye Oyinlola Auditorium, Osun State University, Osogbo, Nigeria
   Paper Presented: *Rotor Angle Dynamics in Multi-Machine Grid-Independent District Minigrid*
7. ***Institute of Electrical and Electronic Engineers (IEEE) 6th Power-Africa International Conference***
   20th – 23rd August 2019
   International Training Institute, Abuja FCT, Nigeria
   Paper Presented: *A Performance Assessment of the Distribution Sub-System in the Nigerian Deregulated Power Sector*

8. ***7th International Conference on Clean and Green Energy***
   7th – 9th February 2018
   Novotel Paris Creteil Le Lac, *Paris, France*
   Paper Presented: *Simulation of Load-Sharing in Standalone Distributed Generation System*

9. ***Institute of Electrical and Electronic Engineers (IEEE) International Conference on Adaptive Science and Technology***
   29th – 31th October 2014
   University Conference Centre, Covenant University, Ota, Nigeria
   Paper Presented: *Effect of STATCOM on the Critical Clearing Time of Faults in Multi-Machine Power Systems during Transient Stability Analysis Studies*

10. ***Institute of Electrical and Electronic Engineers (IEEE) International Conference on Electronic, Computer and Computation***
    29th September – 1st October 2014
    University Conference Centre, Nigerian-Turkish Nile University, Abuja FCT, Nigeria
    Paper Presented: *Power System Simulation and Contingency Ranking Using Load Bus Voltage Index*

Attendance and Participation without Paper Presentation

11. ***Council for the Regulation of Engineering in Nigeria (COREN) 34th Engineering Assembly***
    13th – 15th July 2026
    The Velodrome, Constitution Avenue, Moshood Abiola Stadium, Abuja FCT, Nigeria

12. ***38th Biannual General Meeting of the Committee of Deans of Engineering and Technology (CODET) in Nigerian Universities***
    12th – 13th July 2026
    Council Chamber, COREN Head Office, Wuse Zone 4, Abuja FCT, Nigeria

13. ***37th Biannual General Meeting of the Committee of Deans of Engineering and Technology (CODET) in Nigerian Universities***
    4th – 6th March 2026
    Amphitheatre, Rivers State University, Port-Harcourt, Nigeria

14. ***Nigerian Society of Engineers (NSE) 2025 International Engineering Conference, Exhibition and Annual General Meeting***
    1st – 5th December 2025
    International Conference Centre, University of Ibadan, Ibadan, Nigeria

15. ***Nigerian Institute of Electrical and Electronic Engineers (NIEEE) 21st International Conference and Exhibition on Power and Telecommunication***
    13th – 17th October 2025
    De Legend Event Centre, Dele Yesa Area, Osogbo, Nigeria

16. ***World Standards Day 2025***
    13th October 2025
    De Legend Event Centre, Dele Yesa Area, Osogbo, Nigeria

17. ***Colloquium of Tertiary Institutions in Ondo State (of Nigeria)***
    3rd June 2025
    T.I. Francis Auditorium, Federal University of Technology, Akure, Nigeria

18. ***3rd International Conference on Engineering and Environmental Sciences***
    25th – 28th November 2024
    Olagunsoye Oyinlola Auditorium, Osun State University, Osogbo, Nigeria

19. ***Nigerian Institute of Electrical and Electronic Engineers (NIEEE) 19th International Conference and Exhibition on Power and Telecommunication***
    9th – 13th October 2023

The Afficient, Sultan Road, Nasarawa, Kano, Nigeria

20. ***National Population Commission's State Level Training Workshop for Census Functionaries Trainers***
27th January – 5th February 2023
Osogbo Grammar School, Osogbo, Nigeria

21. ***National Population Commission's Zonal (Geo-Political) Level Training Workshop for Census Facilitators Trainers***
13th – 22nd December 2022
Subuola Schools, Total Garden, Ibadan, Nigeria

22. ***National Population Commission's National Level Training Workshop for Census Functionaries Principal Facilitators***
28th November – 8th December 2022
Public Service Institute of Nigeria, Abuja FCT, Nigeria

23. ***11th International Conference on Quality Assurance in Higher Education in Africa***
6th – 10th October 2019
National Universities Commission Headquarters, Abuja FCT, Nigeria

24. ***FUTA USAID-PEER Workshop on Transmission Grid Expansion***
21st – 22nd August 2018
WASCAL Building, Federal University of Technology, Akure, Nigeria

25. ***Forum of the Microgrid Research Team of the African Union's High-Level African Panel on Emerging Technologies (APET)***
5th – 11th November 2017
Villa Paradiso Country Manor, Hartbeespoort Dam, Magaliesburg, South Africa

26. ***Forum of the Microgrid Research Team of the African Union's High-Level African Panel on Emerging Technologies (APET)***
3rd – 9th September 2017
Villa Paradiso Country Manor, Hartbeespoort Dam, Magaliesburg, South Africa

27. ***Forum of the Microgrid Research Team of the African Union's High-Level African Panel on Emerging Technologies (APET)***
23rd – 26th July 2017
Tomreik Hotel, Accra, Ghana

28. ***Osun State University/Tertiary Education Trust Fund (UNIOSUN/TETFund) 2016 Workshop for Editorial Board Members of TETFund-Sponsored Institution-Based Journals***
7th December 2016
Olagunsoye Oyinlola Auditorium, Osun State University, Osogbo, Nigeria

29. ***Nigerian Institute of Electrical and Electronic Engineers (NIEEE) 12th International Conference and Exhibition on Power and Telecommunication***
10th – 14th October 2016
Crest Hotel and Gardens, Jos, Nigeria

30. ***Council for the Regulation of Engineering in Nigeria (COREN) 24th Engineering Assembly***
8th – 10th August 2016
International Event Centre, Akure, Nigeria

31. ***First Nigerian Energy Forum***
12th – 13th April 2016
Lagos Oriental Hotel, Lekki Peninsula, Nigeria

32. ***Nigerian Institute of Electrical and Electronic Engineers (NIEEE) Workshop on Solar Photovoltaic Inverters Installation, Operation and Maintenance***
3rd – 5th November 2015; Lagos State Secretariat, Ikeja, Nigeria

33. ***Council for the Regulation of Engineering in Nigeria (COREN) 22nd Engineering Assembly***
29th September – 1st October 2014

International Conference Centre, Abuja FCT, Nigeria

34. ***Fifth African Regional Conference on Engineering Education***
9th – 12th September 2013
University Conference Center, University of Lagos, Akoka, Nigeria

35. ***University of Tennessee at Chattanooga (UTC) Division of Continuing Education Smart Grid Workshop 2012***
3rd October 2012
University Conference Centre, University of Tennessee at Chattanooga, USA

36. ***Osun State University's College of Science, Engineering and Technology Conference 2011***
15th – 18th March 2011
Olagunsoye Oyinlola Auditorium, Osun State University, Osogbo, Nigeria

37. ***Nigerian Society of Engineers Refreshers Seminar***
11th – 13th August 2010
University Conference Center, University of Ibadan, Ibadan, Nigeria

38. ***National Solar Energy Forum Conference***
5th – 6th November 2008
University Conference Center, University of Ibadan, Ibadan, Nigeria

OTHER RELEVANT INFORMATION

Delivery of Invited Lectures / Presentations / Keynote Addresses

August 12, 2026 — ***Strategic Leadership and Emotional Intelligence: Transitioning from Campus to Corporate Environment***
A keynote address delivered at the Career Capacity Building Workshop of the Federal Polytechnic, Ede, Nigeria; anchored by the Career Service Centre of the institution under the theme: ***Advancing Leadership, Digital Competence, and Professional Certification for Employability***. Held at Akogun Hall, Federal Polytechnic, Ede, Nigeria.

September 9, 2025 — ***Affordable and Sustainable Access to Clean Electricity in Nigeria: A Look into Rural-Urban Disparity***
A discussional live radio broadcast programme – UNIOSUN Solutions Forum (USF) – sponsored for community outreach by the Global Affairs and Sustainable Development Institute (GASDI) of the Osun State University, Osogbo, Nigeria and anchored/broadcasted by the Rave 95.5 FM Radio Station, Osogbo, Nigeria

July 26, 2018 — ***Challenges and Prospects of Electrical and Electronic Engineering Technology in a Depressed National Economy: Charting a Carrier Path for Self-Reliance***
A lecture delivered at the Maiden Edition of the Alumni Re-Union of the Electrical and Electronics Engineering Department of the Osun State College of Technology, Esa-Oke, Nigeria. Held at Faculty of Engineering Lecture Theatre, Osun State College of Technology, Esa-Oke, Nigeria

July 24, 2017 — ***Microgrid Technology: Electrifying Africa***
A presentation made at a Forum of the Microgrid Research Team of the African Union's High-Level African Panel on Emerging Technologies (APET) anchored by the New Partnership for Africa's Development – NEPAD (now African Union Development Agency – AUDA). Held at Tomreik Hotel, Legon, Accra, Ghana

Involvement in Special Projects

2023 – 2025 — ***Initiated a 'Light-Up the Campus Initiative' that Provided Solar-PV Electrification within a University Campus***

A 'Light-Up the Campus Initiative' was founded by me at Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria, through which I designed and installed a number of stan-alone solar-PV power units as alternative means of access to electricity on the campuses of the university; as well as training-up personnel in the skill of designing, installing and troubleshooting solar-PV power system.

2024 ***Host Collaborator in a Carnegie African Diaspora Fellowship Program (CADFP)***

A Project Request was initiated by me under the Carnegie African Diaspora Fellowship Program (CADFP) of the Institute of International Education (IIE), USA; through which a scholar from Purdue University Fort Wayne, Fort Wayne, USA was seconded by the Carnegie Corporation of New York (CCNY) to Olusegun Agagu University of Science Technology, Okitipupa, Nigeria for ninety (90) days [May 15, 2024 to August 12, 2024]. The scholar was hosted and partnered by me, for curriculum development on graduate studies, seminars for junior faculty members on research initiation and cross-national scholarly collaboration, as well as workshops for senior faculty members on international practices on graduate students training, advisory/supervision and mentoring on the emerging trends in power system resilience, energy transition, renewable electricity and electric microgrid.

2024 ***Facilitated Donation of Laboratory Equipment / Research Facilities by the Home Institution of a Diaspora Fellow to a Nigerian University***

I did facilitate donation of some laboratory/research equipment/facilities (Four-Channel Digital Storage Oscilloscopes, Digital Multimeters, Dual Display Multimeters and Function Generators) by the home institution of the Visiting Diaspora Scholar to the Electrical and Electronics Engineering Department, Olusegun Agagu University of Science Technology, Okitipupa, Nigeria.

2017 – 2019 ***Facilitated Construction of a Modern Civic Centre in a Rural Community***

I facilitated and monitored to completion the construction of a modern Civic Centre at Isaobi-Ijesa, a rural community at Atakunmosa-West LGA of Osun State in Nigeria, as anchored by Agency for Community and Social Development Project (ACSDP) through a Government-Community Partnership initiative.

2017 ***Host Collaborator in a Carnegie African Diaspora Fellowship Program (CADFP)***

A Project Request was initiated by me, under the Carnegie African Diaspora Fellowship Program (CADFP) of the Institute of International Education (IIE), USA; through which a scholar from Purdue University-Indiana University, Fort Wayne, USA was seconded by the Carnegie Corporation of New York (CCNY) to Osun State University, Osogbo, Nigeria for ninety (90) days [May 19, 2017 to August 17, 2017]. The scholar was hosted and partnered by me, for curriculum development on graduate studies, seminars for junior faculty members on research initiation and cross-national scholarly collaboration, as well as workshops for senior faculty members on international practices on graduate students training, advisory/supervision and mentoring on the emerging trends in power system resilience, energy transition, renewable electricity and electric microgrid.

2017 ***Facilitated a Memorandum of Understanding between a USA University and a Nigerian University***

I facilitated a Memorandum of Understanding (MoU) between Purdue University Fort Wayne, Fort Wayne, USA and Osun State University,

Osogbo, Nigeria to foster exchange scholarships and research collaborations between the two institutions.

2017 ***Facilitated Donation of Laboratory Equipment / Research Facilities by the Home Institution of a Diaspora Fellow to a Nigerian University***

I did facilitate donation of some laboratory/research equipment/facilities (Four-Channel Digital Storage Oscilloscopes) by the home institution of the Visiting Diaspora Scholar to the Electrical and Electronic Engineering Department, Osun State University, Osogbo, Nigeria.

EXTRA-CURRICULAR ACTIVITIES

Playing Table-Tennis and Gardening

SUMMARY OF RESEARCH FOCUS AND CONTRIBUTIONS TO KNOWLEDGE

Affordable access to clean, reliable and sustainable energy has been a persistent universal concern in the modern world. Radical transformation of energy sector has thus become the key to satisfying the energy demands of the rapidly growing global population; hence, development of energy technologies and facilities beyond the current levels is an inexorable and continuous scientific obligation. While the pathway to actualizing the goal of universal energy access with zero carbon footprints is termed energy transition, one of the cogent means of achieving the target is paradigm shift from fossil- to renewable-energy.

Due to its convenience of production and efficiency of conversion to other forms of energy (and *vice versa*), electricity plays a central role in the energy sustainability in the modern society, with electric grid being the focal system for energy availability. However, there has been a prevalence of low level of electrification; resulting from inadequate availability, or ineffective exploitation in some cases, of fossil fuels; constraints associated with expansion and maintenance of the traditional electricity delivery infrastructures; as well as lack of capability for full development of hydropower (and other renewables) potentials. Electric microgrid is an emerging technology adjudged as having the essential features that earns it acceptance as the solution to most of the challenges pertaining to electricity supply. Microgrid technology is capable of enhancing electric power system management and control for flexibility, stability, security and interaction with other energy systems.

In this light, the focus of my research has been on the aspect of Energy Transition that focuses on Energy Storage and Conversion, Power System Resilience, and Renewable Electric Microgrid. For seamless and efficient transformation of the current power system structures towards future-proofed energy mix, microgrid operations using distributed renewable energy resources is being researched and developed through series of investigative studies that I involve in. As regards operational precision of electric microgrid systems, I have adopted system modelling for experimental demonstration as my approach to probing the operational behaviours of microgrids. Through development of microgrid models and deployment of same as microgrid emulators, I have been able to examined the performances of various components of microgrid systems.

A number of reduced-scale (simulation-based, laboratory-scale, and on-the-site demos, as well as their combinations) microgrids have been developed by me and experimented as testbeds in investigating the transient behaviours of non-conventional energy sources in relation to the possibility of their exhibition of new dynamic properties when exploited as either single- or hybrid-source configurations, based on availability of the energy resources. Predictive and corrective measures of compensating for functional complications have been developed through my studies, and applied in maintaining microgrid systems in reliable operational conditions. Conventional electric power grid networks have also been investigated by me for microgrid penetration and interaction possibilities, towards enhancing the resilience and self-healing capabilities of the traditional power delivery infrastructures.

Premised on the discoveries made from my probing into the electric microgrid world, paradigm shift from the conventional to massive deployment of renewable energy based microgrid technology has been consistently advocated as the complementing (and possibly, succeeding) alternative to the traditional macrogrid approach to electrification. Some of my scholarly publications report my research findings on

configurations, sizes and performances of various energy sources (biomass, solar, wind, small hydropower, diesel generator, sea wave) as autonomous, inter-tied, grid-connected, islanding, mobile, or virtual modes of microgrid applications.

BIOGRAPHICAL INFORMATION

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