Mojeed Oyedeji

Control and Instrumentation Engineering (CIE) Department
College of Engineering and Physics
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EDUCATION

Ph.D. Systems and Control Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia, 2020

M.S. Systems and Control Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia, 2017

B.S. Electrical and Electronic Engineering, Osun State University, Nigeria, 2012

EMPLOYMENT HISTORY

2022– Postdoctoral Fellow,
Control and Instrumentation Engineering (CIE) Department,
King Fahd University of Petroleum and Minerals, Saudi Arabia

2017–20 Lecturer B,
Control and Instrumentation Engineering (CIE) Department,
King Fahd University of Petroleum and Minerals, Saudi Arabia

2015–17 Graduate Assistant,
Department of Electrical and Electronic Engineering,
Osun State University, Nigeria

RESEARCH AREAS

Machine Learning and AI: Medical Machine Learning, Modeling with Machine Learning, Convolutional Neural Networks

Distributed Control & Optimization, Multi-agent systems, State-Dependent Networks.

Internet of Things, Digital Twins & Industry 4.0

PUBLICATIONS

Articles (In Press)

2022 **M.O Oyedeji**, M. AlDhaifallah, H. Rezk, A. Mohammed, "Computational Models for Forecasting Electric Vehicle Energy Demand", *International Journal of Energy Research*.

Articles (Under Review)

2022 **M.O Oyedeji** and I.O Alade, "Short-Term Load Forecasting Models for Great Britain Power System Using Machine Learning Techniques on a Net-Imports Dataset", *Energy*.

2022 **M.O Oyedeji** and I.O Alade, "Forecasting Gas Demand in Eastern Europe using Machine Learning Approaches", *Expert Systems with Applications*.

2022 **M.O Oyedeji**, "Computational-Intelligence Models for Thermoregulatory Properties in Passerines from Different Temperate Regions", *Expert Systems with Applications*.

2022 IA Olumegbon, IO Alade, **MO Oyedeji**, T.F. Qahtan, A. Bagudu, "Development of Machine Learning Models for Prediction of Binary Diffusion Coefficients of Gases", *Engineering Applications of Artificial Intelligence*.

Journal Articles

2022 I.O Alade, **M.O Oyedeji**, M. A. Abd Rahman, T.A Saleh, "Prediction of the lattice constants of pyrochlore compounds using machine learning", *Soft Computing*.

2022 I.O Alade, **M.O Oyedeji**, M. A. Abd Rahman, T.A Saleh "Predicting the density of carbon-based nanomaterials in diesel oil through computational intelligence methods", *Journal of Thermal Analysis and Calorimetry*.

2021 **Oyedeji, M.O.**, and Mahmoud, M.S. "Distributed coordination on state-dependent fuzzy graphs" 358 (5),*Journal of Franklin Institute*.

2020 M. Salauddin, O.I, Alade, **M.O Oyedeji**,U.S Aliyu, "A machine learning-based model to estimate the density of nanofluids of nitrides in ethylene glycol" 127 (2),*Journal of Applied Physics*.

2020 **Oyedeji, M.O.**, and Mahmoud, M.S. "Consensus in multi-agent systems over time-varying networks" 6, *Journal of Cyber-Physical Systems*.

2019 **Oyedeji, M.O.**, and Mahmoud, M.S. "Adaptive and predictive control strategies for wind turbine systems: A survey" 6 (2), *IEEE/CAA Journal of Automatica Sinica*.

2018 **Oyedeji, M.O.**, and Mahmoud, M.S. "Couple-Group Consensus Conditions For General First-Order Multiagent Systems With Communication Delays" 117, *Systems and Control Letters*.

2018 Mahmoud, M.S. and **Oyedeji, M.O.** "Continuous-time Multi-Model Predictive Control of Variable-Speed Variable-Pitch Wind Turbines" 49 (11) *International Journal of Systems Science*

2017 Mahmoud, M.S. and **Oyedeji, M.O.** "Optimal Control of Wind Turbines under Islanded Operation" 8 (1) *Intelligent Control and Automation*.

2013 Alawode, K.O. and **Oyedeji, M.O.** "A Comparison of Neural Network Models for Load Forecasting in Nigerian Power System" 2 (5) *International Journal of Research in Engineering and Technology (IJRET)*.

Book

2021 Mahmoud, M.S, Oyedeji, M.O., Yuanqing Xia. "Advanced Distributed Consensus for Multiagent Systems" *Academic Press*, ISBN 978-0-12-821186-1

Conference Proceeding

2018 Mahmoud, M.S. and **Oyedeji, M.O.**. " Convex Optimization Design of Multi-Model Controller for Pitch-Regulated Wind Turbine Systems" *IECON 2018 -44thth Annual Conference of the IEEE Industrial Electronics Society*.

Patent

2022 Mahmoud, M.S, **Oyedeji, M.O.**. *Systems and methods for multi-agent system control using consensus and saturation constraints*. US Patent 11281232.

COURSES TAUGHT

King Fahd University of Petroleum and Minerals

2022 CIE 312 - Instrumentation Engineering

2022 CIE 312 - Instrumentation Engineering (Lab)

2022 CIE 316 - Control System Design (Lab)

2020 CISE 306 - Linear Control System (Lab)

2019 CISE 204 - Digital System Design (Lab)

2019 CISE 313 - Automation Devices and Electronics (Lab)

2018 CISE 306 - Linear Control System (Lab)

2018 CISE 313 - Automation Devices and Electronics (Lab)

2017 CISE 414 - Embedded Control Systems (Lab)

2017 CISE 302 - Linear Control Systems (Lab)

2017 CISE 313 - Automation Devices and Electronics (Lab)

PROGRAMMING SKILLS

Frontend Development: HTML/CSS, React.JS, React Native, JavaScript

Backend Development: PHP, Python (Flask & Django), Node.JS

Database: MySQL, MongoDB.

Algorithm & ML : Python, MATLAB

Git, Docker

TECH EMPLOYMENT

2021– Full Stack Developer,
Chetaa Logistics Management,
A Software-as-a-Service logistics management application that helps logistics business manage their delivery requests. The application is multifaceted providing services to logistic businesses, dispatch riders, and vendors.

Developed REST API services that form the core of the entire application responding to different requests.

Conceptualized and designed user interfaces and user experience based on research.

Developed front-end for logistics business dashboard, dispatch rider mobile and web, vendor/customer interfacing applications, and delivery marketplace applications.

Handled hosting and domain management, timely updates, and backups.

2020-22 Full Stack Developer,
RoofReno Revolutions,
A roof replacement servicing and supply company.

Developed customer mobile-responsive web application for ordering roof replacement services which includes an automated quote generation system based on roof measurement inputs.

Built a web-based inventory management system for handling supplier requests and logistics.

Developed a canvassing application with google maps integration for collecting addresses and taking roof measurements.

Designed and managed the company's home website using WordPress CMS tools.

Developed roofing installer application which allows roofing installer plugin to the company's data infrastructure to view and update roofing measurements before the commencement of installations.

Handled hosting and domain management, timely updates, and backups

2020-22 Full Stack Developer (Contract),
OgaService Carcare Limited,
On-demand car care service application

Full-stack software developer with the primary responsibility of developing code for mobile and web applications.

Developed a responsive web and mobile-based customer application for requesting car maintenance services

Developed web-based admin application which features customer relationship management tools, payments management, and HR applications for staff management.

Developed web and mobile-based application repairmen (or servicemen) applications for the fulfillment of customer service orders.

Designed and managed the company's home website using WordPress CMS tools.

Advice the CEO on current technological trends in the tech and startup space.

Plan, develop, and deploy updates in a scalable fashion.

2018-20 Full Stack Developer,
WebCV,
CV editing, sharing, and submission application

Designed and developed web and mobile applications in my role as a full-stack developer.

Developed mobile and web-based application for job seeker cv data management.

Developed a web-based application for managing recruiter job postings and interview scheduling.

Wrote pitch decks and designed presentations for funding applications.

Attended startup conferences and incubator programs.

2013-19 Full Stack Developer,
IScrypt,

SaaS Web-based school management information system

Developed software based on SaaS paradigms to manage student and staff data in secondary schools.

Wrote business proposals for marketing and sales to secondary school administration.

Deployed timely updates and provided real-time support to customers.