

ISMAIL, TAOFEEQ AKANGBE

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PROFESSIONAL SUMMARY

Results-driven Mechanical Engineer with a Second Class Upper degree from Obafemi Awolowo University and over seven years of hands-on automotive and industrial experience. Demonstrated expertise in automobile diagnostics and maintenance, energy systems, CNG technologies, and mechanical design. Proven track record in engineering research, solar-assisted EV development, bi-fuel engine conversion, and robotic systems. Adept at bridging academic knowledge with practical workshop application to deliver reliable engineering solutions.

WORK EXPERIENCE

Automobile Specialist

Ismaila Ogunleye Automobile Workshop | Osun State, Nigeria | 2017 – Present

- Perform diagnostics, servicing, and repairs on a diverse range of petrol and diesel vehicles, resolving complex mechanical and electrical faults.
- Conduct routine preventive maintenance including engine tune-ups, brake servicing, suspension repairs, and transmission overhauls.
- Support installation and testing of bi-fuel (petrol/CNG) engine conversion kits, ensuring compliance with safety standards.
- Train junior technicians on diagnostic tools and best practices, improving workshop turnaround times.
- Maintain accurate service records and liaise with customers to explain technical findings and recommended solutions.

Industrial Trainee – Mechanical Engineering

RABSIH IMEC Nigeria Limited | Nigeria | 2023

- Gained hands-on exposure to industrial mechanical systems, equipment maintenance, and engineering project workflows.
- Collaborated with senior engineers on plant inspections, technical documentation, and process improvement initiatives.
- Applied SolidWorks and AutoCAD skills to assist in component design reviews and drafting tasks.

ENGINEERING PROJECTS

Solar-Assisted Electric Vehicle (EV) Development (2024)

- Designed and modelled a solar-assisted EV prototype integrating photovoltaic panels to extend vehicle range.
- Performed energy balance calculations and system sizing to optimise solar input relative to battery capacity.

CNG Transportation Feasibility Study (2024)

- Conducted a comprehensive techno-economic analysis of Compressed Natural Gas (CNG) as an alternative transportation fuel in Nigeria.
- Evaluated safety, infrastructure, and cost-benefit considerations to support sustainable mobility goals.

Bi-Fuel Engine Conversion & Numerical Analysis (2024)

- Converted a conventional petrol engine to operate on both petrol and CNG, documenting the conversion procedure and safety protocols.
- Performed numerical simulations to analyse combustion performance and emission characteristics of the bi-fuel configuration.

Robotic Arm Development (2017)

- Designed and fabricated a functional robotic arm prototype for pick-and-place operations during ND final year project.
- Applied mechanical design principles and basic control systems to achieve precise multi-axis movement.

EDUCATION/CERTIFICATIONS

B.Eng. Mechanical Engineering – Second Class Upper
Obafemi Awolowo University. | 2019 – 2024

National Diploma (ND), Mechanical Engineering – Distinction
The Federal Polytechnic Ede. | 2015 – 2018

Graduate member of Nigerian Society of Engineers – 2026

National Youth service Corps (NYSC) – Completed, 2026

TECHNICAL SKILLS

CAD & Design: AutoCAD, SolidWorks

Automotive: Engine diagnostics, vehicle servicing, CNG system installation, bi-fuel conversion

Engineering Analysis: Numerical simulation, energy system modelling, combustion analysis

Productivity: Microsoft Office Suite (Word, Excel, PowerPoint)

Languages: English (Fluent), Yoruba (Native)

AWARDS & RECOGNITION

NAMES-FEDEPE Outstanding Student Award – The Federal Polytechnic Ede. (2017)

Recognised for exceptional academic and practical performance in Mechanical Engineering for the year 2017.