
ENGR. IGBAGBON JUSTICE EFE

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Permanent Address: 21 Adolor College Road, Ugbowo, Benin City

Date of Birth: 23rd October 1987

State of Origin: Edo

Gender: Male

Marital Status: Married



PROFESSIONAL SUMMARY

Engr. Igbagbon Justice Efe is a dynamic and results-driven mechanical engineer with a strong background in thermal power systems, mechanical design, project management, and energy technologies. With a First-Class bachelor's degree in mechanical, Metallurgical, and Production Engineering, and a master's degree in Thermal Power Engineering, Engr. Igbagbon has developed expertise in mechanical system design, power generation technologies, and the sustainable management of energy resources.

He has over 10 years of industry experience across diverse roles, including senior management, project supervision, and business development in reputable organizations such as Royce Engineering Limited, Brentford Engineering & Construction, and Edo State Civil Service Commission. His notable achievements include the successful overhaul and maintenance of critical mechanical systems, leading high-impact engineering projects, and contributing to advancements in energy efficiency and renewable energy technologies.

Engr. Igbagbon's research interests are focused on improving energy production processes and exploring alternative energy solutions. His extensive academic contributions in the areas of biogas production, steam generation, wind energy, and combustion technologies have been published in well-regarded international journals. As an educator, he is committed to nurturing the next generation of engineers through his role as a lecturer at Igbinedion University, where he teaches and mentors students in mechanical engineering courses, with a particular focus on power systems and thermal engineering.

A registered professional engineer with the Council for the Regulation of Engineering in Nigeria (COREN) and an active member of the Nigerian Society of Engineers (NSE), Engr. Igbagbon brings a wealth of knowledge, leadership, and innovation to every project and academic endeavor. He is passionate about delivering sustainable engineering solutions, optimizing mechanical systems, and promoting cutting-edge research in the engineering sector.

KEY SKILLS

- Mechanical Systems Design and Analysis
- Power Generation & Thermal Systems
- Project Management and Supervision
- Maintenance and Overhaul of Mechanical Equipment
- Industrial Fabrication and Installation
- Energy Efficiency and Sustainability
- Research & Development in Energy Technologies

- Business Development & Client Relationship Management
 - Proficient in Computer Applications & Engineering Software
 - Excellent Communication and Teamwork Skills
 - Highly Analytical with Attention to Detail
 - Adaptable and Strong Leadership Skills
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PROFESSIONAL EXPERIENCE

Lecturer | Igbinedion University Okada, Benin City, Edo State

2023 – Present

- Teaching undergraduate and postgraduate courses in Mechanical Engineering, specializing in Power Systems and Turbo-machinery.
- Supervising student projects and research in energy systems, renewable energy technologies, and thermal power engineering.
- Actively involved in the development and delivery of curriculum to meet evolving industry needs.

General Manager | Royce Engineering Limited, Port Harcourt, Rivers State

2022 – 2023

- Design and fabrication of heat exchanger.
- Heirs Holdings Oil & Gas Ltd: Overhaul/Maintenance of GA30FF and SULLAIR 375 Mobile Air Compressor for Agbada & Obigbo NAG (Order No. HHOG-MTCE-MECH-09062022-007)
- Nigeria Agip Oil & Gas(NAOC): Supply & Programming of Modules at Brass I.A and Obama Flow Station (Request No: SAR/036/2021)
- Nigeria Agip Oil & Gas(NAOC): Supply of spare parts for Atlas Copco XAHS 347CD (Request No:SAR/124/2022), XAHS 186DD Mobile Air Compressor at Brass terminal (Request No:SAR/040/2021)
- Nigeria Agip Oil & Gas (NAOC): Programming of Atlas Copco XAHS 347 Mobile Air Compressors at Brass Terminal (Request No: SAR/021/2022)
- Heirs Holdings Oil & Gas Ltd: Overhaul/Maintenance and reprogramming of Module of GA37+FFAir Compressor at Obigbo NAG and Umuechem (Order No. HHOG-MTCE-MECH-220921-01), Maintenance/Servicing XATS 156 Mobile Air Compressor at Umuechem Flow Station(Order No:156/Umuechem/Jan.2022)
- Design and fabrication of industrial oven
- Design & fabrication of vibrating shaker for particles size separation
- Tank cleaning and hydrocarbon waste recovery & treatment.

Assistant General Manager | Royce Engineering Limited, Port Harcourt, Rivers State

2020 – 2022

- Led projects in collaboration with clients such as Heirs Holdings Oil & Gas and Nigeria Agip Oil & Gas, ensuring the overhaul, maintenance, and programming of mobile air compressors.
- Managed day-to-day operations, overseeing teams for the installation, maintenance, and servicing of mechanical systems.

- Facilitated business development initiatives and formulated project proposals, contributing to revenue growth and customer satisfaction.

Mechanical Supervisor / Business Development Manager | Brentford Engineering & Construction Limited, Port Harcourt, Rivers State

2019 – 2020

- Supervised mechanical system installations and provided field support during operations.
- Played a crucial role in business development, securing projects and expanding the company's client base.
- Designed and fabricated mechanical systems such as heat exchangers, industrial ovens, and vibrating shakers for industrial applications.

Mechanical Engineer I | Edo State Civil Service Commission, Benin City, Edo State

2017 – 2019

- Conducted maintenance and repair of heavy-duty trucks, ensuring optimal operation for state transportation.
- Contributed to the design and implementation of road infrastructure systems, including road signs, traffic lights, and road markings.

Project Supervisor/Field Engineer | Terrabay Oil and Gas Service, Warri, Delta State

2014 – 2017

- Supervised the construction and installation of mechanical systems at oil and gas facilities.
- Oversaw quality control, scheduling, and job site safety, ensuring compliance with design specifications and standards.

Project Supervisor | Hydroscan Nigerian Company, Asaba, Delta State

2012 – 2013

- Supervised the design and installation of urban water distribution systems, including pump selection and pipe sizing.

Student Industrial Work Experience | Singmoff Limited, Warri, Delta State

June – Dec 2011

EDUCATION

Ph.D. Mechanical Engineering (In Progress)

University of Benin, Benin City, Edo State | 2023 – Present

M.Eng. Thermal Power Engineering

University of Benin, Benin City, Edo State | 2016 – 2019

B.Eng. Mechanical, Metallurgical, and Production Engineering (First Class Honours)

Delta State University, Abraka, Delta State | 2007 – 2012

PUBLICATIONS

1. **Efe Justic Igbagbon**, Ejiroghene Kelly Orhorhoro, Tega Emmanuel Erokare (2024). Performance Evaluation of a Developed Miniature Steam Boiler Using Different Samples of Wood Waste as Fuel for Steam Generation. *Journal of Advanced Industrial Technology and Application*, 5(1), pp. 26-36. <https://doi.org/10.30880/jaita.2024.05.01.004>
2. **Efe Justic Igbagbon**, Ejiroghene Kelly Orhorhoro, and Onoriode Erhinyodavwe (2024). Design Analysis of a Miniature Steam Boiler for the Generation of Steam, *Journal of Science and Technology* <https://doi.org/10.5281/zenodo.13765459> Research, 6(3), pp. 87-98.
3. Okuyade S.O., Sadiq, S., **Igbagbon J.E.** (2023). Performance Evaluation of Biogas Yields from Co-Digestion of Kitchen Waste and Pig Dung, *Nigerian Journal of Engineering Science Research*, 6(4): 48-55. <https://doi.org/10.5281/zenodo.13901070>
4. Madu, K.E., Nwanze, N.E., Emu, A.O., **Igbagbon E.J.** (2024). Integration of a High-Pressure Fogging Air Intake Cooling System in a Gas Turbine Power Plant, *Journal of Engineering and Technology*, Accepted for Publication
5. Nwanze N.E., Madu K.E., Emu A.O., **Igbagbon E.J.** (2024). Examining the Thermodynamic Effect of Incorporating Wetted Media Evaporative System Gas Turbine Power Plant using Aspen HYSY Simulation Model, *Africa Journal of Advances in Science and Technology*, Accepted for Publication
6. Orhorhoro E.K., **Igbagbon E.J.**, Erameh, A.A. (2024). Characterization of Biodiesel Production from Waste Cooking Oil, *European Journal of Sustainable Development Research*
7. Orhorhoro E.K., **Igbagbon E.J.**, Erokare T.E. (2024). A Review of Global Wind Energy Potential: Prediction, Application and challenges, *Journal of Advancement in Environmental Solution and Resource Recovery*
8. Erokare T.E., **Igbagbon E.J.**, & Orhorhoro E.K. (2024). Experimental Analysis of Combustion of Wood Waste for Energy Utilization, *LAUTECH Journal of Engineering and Technology*
9. Samuel Batet, **Efe Justic Igbagbon** (2025). Evaluation of Biogas Power Potential from Co-Digestion of Food Waste and Palm Oil Mill Effluent, *International Research Journal of Modernization in Engineering Technology and Science* <https://www.doi.org/10.56726/IRJMETs82239>.
10. E.K. Orhorhoro, S. Sadiq, **E.J. Igbagbon**, C.O. Omoyi (2025). Investigation of the Effect of Layer Thickness and Raster Angle Orientation on the Bending Properties of Additive Manufactured Polylactic Acid (PLA) Polymer, *Journal of Advanced Mechanical Engineering Applications*, <https://www.doi.org/10.30880/jamea.2025.06.01.001>
11. Madu, K. E; Nosegbe, U; Orhorhoro, E. K. 3; and **Igbagbon, J. E.** (2025). Performance Evaluation of a Photovoltaic System for Household in Asaba, Nigeria, *African Journal of Environmental Sciences & Renewable Energy*, <https://doi.org/10.62154/ajesre.2025.019.01012> 19(1) 2025
12. Madu, K. E; Nwanze, N. E; **Igbagbon, E. J**; Emu, A. O. (2025). Integration of A High-Pressure Fogging Air Intake Cooling System in A Gas Turbine Power Plant. *J. Appl. Sci. Environ. Manage.* 29 (4) 1295-1302, <https://dx.doi.org/10.4314/jasem.v29i4.33>

13. Nwanze N. E, Madu K. E, Emu A. O, **Igbagbon E. J** (2025). Examining The Thermodynamic Effect of Incorporating Wetted Media Evaporative System Gas Turbine Power Plant, International Journal Of Progressive Research In Engineering Management And Science, <https://www.doi.org/10.58257/IJPREMS38151>

14. Erokare, E.T., Umunna, M. F., **Efe J. Igbagbon**, Nyorere O., Iweka S. C., Okoh, P.C., Ikoko, O., Ekwemuka, J.U.(2025). Suitability of Cassava Starch and Wastepaper Binders for Biomass Pellet: A Review Study. NJETSE, Vol. 1(01)

CONFERENCE PAPER

Ejiroghene Kelly Orhorhoro, Oghoghorie Oghenekevwe, Efe Justic Igbagbon (2025). Microplastics Impact on Aquaculture Environment: An Overview of Generation, Removal Techniques, Policies, And Prospects, NIPES Book of Abstract.

PRESENTATIONS

- University of Benin-“**Design and Fabrication of Prototype Waste to Energy Boiler for Steam Generation**”
- Delta State University-“**Design and Fabrication of Improved Fish Roaster for Domestic and Commercial Use**”

TECHNICAL SKILLS

Computer Aided Design, Machine Drawing, XATS 156 Mobile Air Compressor, Sullair Air-Compressor, Diesel Engines Overhaul, Design and Fabrication of Ovens, Heat Transfer Systems

CERTIFICATIONS AND TRAINING

- **Chevron Nigeria Limited Facilities Engineering University Human Capacity Development Initiative**
Delta State University | Feb – Sept, 2012
 - **Shell Petroleum Summer School**
3rd – 8th Sept, 2012
 - **Computer Training at Tobejay Technology Limited**
Jan – March, 2013
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AWARDS

- Best Graduating Student, Department of Mechanical Metallurgical and Production Engineering, Delta State University, 2011/2012
- Best Graduating Student, Faculty of Engineering, Delta State University, 2011/2012

- Tony Elumelu Foundation Legacy Prize Winner, Best Overall Graduating Student, Delta State University, 2011/2012
 - Airtel Prize Winner, Best Overall Graduating Student, Delta State University, 2011/2012
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PROFESSIONAL AFFILIATIONS

- **Council for the Regulation of Engineering in Nigeria (COREN)**
 - **Nigerian Society of Engineers (NSE)**
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REFERENCES

Engr. Prof. Albert I. Obanor

Professor, Department of Mechanical Engineering, University of Benin, Benin City, Edo State
Tel: 08055315180

Rev. Prof. Jerry E. Orhue

Dean, Faculty of Life Sciences, University of Benin, Benin City, Edo State
Tel: 08023316921

Dr. Makelemi R. Vincent

Department of Orthopedics, Igbinedion University Teaching Hospital, Okada, Edo State
Tel: 08035515044
