

**CURRICULUM VITAE**  
**PROF. YESUENYEAGBE ATSU KWABLA FIAGBE**

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### **MISSION AND OBJECTIVE**

- To contribute to the development of Ghana through Research & Development.
- Attaining professional excellence and making an impact in the Engineering community through Innovation, Management, and Performance.
- Engineering practice and skill development towards solving practical engineering and industrial problems.

### **EDUCATION**

Aug. 2011 – February 2012: University of Michigan African Presidential Scholars Program (UMAP), Department of Aerospace Engineering, University of Michigan, Ann Arbor. Research and Mentorship Programme in CFD with Prof. Bram Van Leer.

Aug. 2005 – March. 2010: Kwame Nkrumah University of Science and Technology, Kumasi

- **Doctor of Philosophy (Mechanical Engineering)**

Aug. 2007 – Aug. 2008: NASA Centre for Aerospace Research, Department of Mechanical Engineering, North Carolina Agricultural and Technical State University, Greensboro, NC, USA. PBS Exchange Student

Oct. 2000 – Sept. 2002: Kwame Nkrumah University of Science and Technology, Kumasi

- **Master of Science (Mechanical Engineering) Thermofluid & Energy Systems Engineering**

Oct. 1994 - July 1999: University of Science and Technology, Kumasi

- **Bachelor of Science (Mechanical Engineering) Design and Production Engineering**

Nov. 1991 - June 1993: Bishop Herman Secondary School, Kpando

- **G.C.E. Advanced Level**

Oct. 1986 - June 1991: Zion Secondary School, Anloga

- **G.C.E. Ordinary Level**

### **PROFESSIONAL MEMBERSHIP**

Ghana Institution of Engineering

### **AWARD**

International Innovators Award Africa 2024 (Kente Weaver). The award was presented at Born Global Startup Festival on 28<sup>th</sup> May 2024 at Leipzig, Germany.

### **RESEARCHES AND PROJECTS**

- **Development of parametric method for small aircraft design. (2008 - 2016)**

Small aircraft in the form of personal or remote-controlled aircraft design could be approached in such a way as to derive optimum performance for any configuration that may be developed for a given mission. In practice, the aerodynamic performance is estimated from the coefficients obtained due to the chosen wing profile. However, it can be envisioned that every section of the configuration could contribute to the aerodynamic forces.

The research aimed at developing a technique or method that takes into account the contribution of all sections of the configuration with the objective of improving the accuracy of evaluating aircraft performance.

The concept of the method is built on object-oriented technique. Input parameters comprised of two kinds, namely, fixed and design parameters were considered. The output result in the geometry and performance characteristics of the aircraft. The performance is modelled as an integral function over the surface and results in Lift and Drag forces.

- **Development of Lift-Tipping mechanism for small tricycle truck for Municipal waste collection. (2008 – date)**

A number of small waste collection trucks such as tricycles are in use in a number of developing countries. The use of such technology has been popular in Ghana. The research considers the design of a lift-tipping mechanism for small solid waste collection trucks being used by Zoomlion Ghana Limited. The lift-tipping mechanism is developed from a five-bar mechanism with one degree of freedom. The mechanism is modelled and simulated using Solid Edge software as the first step. Results of the simulation show that a height of 70% of the length of the lifting bar could be attained and a tilt angle of more than 40° could be achieved. The actuation of the mechanism could be achieved by employing a power screw, hydraulic or pneumatic actuators, and rack and pinion combinations. This mechanism will improve the operation of the collection truck. The system had since been built and tested in the laboratory. Weight optimization and the system were carried out as also the friction effect of the waste. It is expected that a field test of the tricycle truck fitted with the lift-tipping mechanism will be undertaken.

- **Development of mechanized ‘Kente’ weaving loom for rural industry. (2011 – Date)**

‘Kente’ is a celebrated cloth in Ghana that is produced in narrow strips between 8.0 cm and 15.0 cm. The art of weaving ‘kente’ started more than centuries ago and has since been hand woven. It is, as of now, produced with the same traditional loom. The process is very laborious and time-consuming taking about 14 days for the simplest (single weave) 1.5 m by 2.4 m and 40 days for some specific designs with experienced weavers. The aim of this research is to develop a mechanized weaving machine that is expected to enhance the ‘kente’ weaving process and promote the industry. The process involves three motions that are orthogonal and periodic. The system developed consist of mechanical, electrical/electronic and software driver. The prototype is currently undergoing laboratory testing and will be followed by field test.

The prototype won an International Innovators Award Africa 2024 presented at Born Global Startup festival at Leipzig, Germany on 28<sup>th</sup> May, 2024.

- **Concentrated Solar Energy for Africa (CSP4Africa) Project. (2012 – 2016)**

The project/research seeks to develop a low-cost Concentrated Solar Power (CSP)

technology for the sub-region. It was an Africa Union-funded project/research undertaken by 2iE of Ouagadougou in partnership with the Energy Centre of KNUST. The project duration was three years starting from March 2012. I was a project team member from KNUST. I contributed to the design and manufacturing of the developed multifaceted heliostat and the implementation of the component of the project in Ghana. Contributed to the design, construction, and installation of a heliostat at Wa project site.

- **Plasma Gasification for Municipal Solid Waste Treatment. (2010 – Date)**

Plasma gasification is the process of converting matter into gas in an oxygen-starved environment to decompose waste material into its basic molecular structure. Plasma gasification does not combust the waste as incinerators do. It converts the organic waste into a fuel gas that still contains all the chemical and heat energy from the waste. It converts the inorganic waste into inert vitrified glass. The plasma reactor does not discriminate between types of waste. It can process any type of waste.

A potential solution to waste management in Ghana considering complex waste generation without sorting is Plasma gasification, which is environmentally friendly and has the advantage of converting solid waste into useful by-products. Also, the syngas produced could be used in energy generation.

The initial stage of the research was the assessment of the municipal solid waste generation in the country. This was followed by setting up an experimental plasma gasification reactor and testing. Upon testing, the improvised plasma torch used posed challenges and is currently being reviewed.

- **Oil Spill simulation of the Marine environment of Ghana (2015 –Date)**

Ghana has started production of petroleum in commercial quantity and it is offshore production. This poses a danger to the marine and coaster environment in case of an accident resulting in a major oil spill. The research seeks to provide a simulation package that will help to mitigate the impact of damage and also provide guidance in managing such a situation.

One Ph.D. Candidate graduated as a result of this research.

- **Bast Fibre Research Group (2019 – Date)**

Bast fibre research group is located in the Department of Biochemistry and Biotechnology, College of Science, KNUST. The aim is to conduct research and development of bast fibre crops in Ghana. There are a number of indigenous bast fibre species found in Ghana which require investigation and the group has been doing such. My role is to support the research in investigating the engineering properties and characterization of the various fibre components and also research into possible processing facilities.

A tensile testing machine, Tech Stress TS50, is developed to support the research.

## PUBLICATIONS

- Mohammed, A. M., Fiagbe, Y. A. K., & Tetteh, A. Y. (2026). Variation of Engineering Properties of Kenaf Fiber with Maturity Day. *Journal of Natural Fibers*, 23(1). <https://doi.org/10.1080/15440478.2025.2601183>
- Joseph Amponsah, Archibong Archibong-Eso, Yesueneagbe Fiagbe, David O. A. Opoku, Anthony Apatika, Emmanuel Adorkor, Samuel Adjei, and Ukpabio Ekpenyong,

(2025). Coupled Transport and Reaction Modeling of Sorbent Particle Size Effects in Nonisothermal Packed-Bed CO<sub>2</sub> Adsorption, *ACS Omega* **2025** 10 (32), 35988-36002, DOI: 10.1021/acsomega.5c03466

- Joseph Ampsonsah, Archibong Archibong-Eso, Y.A.K. Fiagbe, Richard Bruce, Tabbi Wilberforce Awotwe, Samuel Adjei, (2025). Interface-driven human brain injury mechanisms in blast exposure: A fluid–structure interaction model, *Medicine in Novel Technology and Devices*, Volume 27, 2025, 100381, ISSN 2590-0935, <https://doi.org/10.1016/j.medntd.2025.100381>.  
(<https://www.sciencedirect.com/science/article/pii/S2590093525000323>)
- O. Issakah, A.M. Kayaba, **Y. Fiagbe**, S. Akromah, J.Y. Kpare, E.K.A. Asare, Effect of Partial Replacement of CaCO<sub>3</sub> with Palm Kernel Shell Particles on the Mechanical Properties of PKS/CaCO<sub>3</sub>/HDPE Hybrid Composites, *Results in Materials*, 2025, 100668, ISSN 2590-048X, <https://doi.org/10.1016/j.rinma.2025.100668>.  
(<https://www.sciencedirect.com/science/article/pii/S2590048X25000135>)
- Joseph Ampsonsah, Archibong Archibong-Eso, Y.A.K. Fiagbe, Richard Bruce, Tabbi Wilberforce Awotwe, Samuel Adjei, Interface-driven human brain injury mechanisms in blast exposure: A fluid–structure interaction model, *Medicine in Novel Technology and Devices*, Volume 27, 2025, 100381, ISSN 2590-0935, <https://doi.org/10.1016/j.medntd.2025.100381>.  
(<https://www.sciencedirect.com/science/article/pii/S2590093525000323>)
- Francis Davis, Prince Yaw Andoh, **Yesuonyeagbe A. K Fiagbe** & Albert Kweku Atsu (2023) Optimization of gas tungsten arc welding parameters for welding of super duplex stainless steel using factorial design, *Cogent Engineering*, 10:1, 2216870, DOI: 10.1080/23311916.2023.2216870 To link to this article:  
<https://doi.org/10.1080/23311916.2023.2216870>
- George Ansong, **Yesuonyeagbe A.K. Fiagbe**, Antonia Y. Tetteh & Francis Davis (2023) Tensile strength and elongation of selected Kenaf fibres of Ghana, *Cogent Engineering*, 10:1, DOI: [10.1080/23311916.2023.2202036](https://doi.org/10.1080/23311916.2023.2202036)
- Richard Okwabi, Gidphil Mensah, **Yesuonyeagbe Atsu Kwabla Fiagbe** and Francis Davis (2023) Towards the estimation of quantity of fuel consumed in steam generation through predictive modelling of feedwater temperature, *Scientific African*, Volume 20, ISSN 2468-2276, <https://doi.org/10.1016/j.sciaf.2023.e01650>
- **Yesuonyeagbe A. K. Fiagbe** & Divine K. Ahadzie (2022) Slip conditions of floor surface finish in selected public places in Kumasi, Ghana, *Cogent Engineering*, 9:1, DOI: [10.1080/23311916.2022.2026205](https://doi.org/10.1080/23311916.2022.2026205)
- Eric Tutu Tchao, Simon Atuah Asakipaam, **Yesuonyeagbe Atsu Kwabla Fiagbe**, Bright Yeboah-Akowuah, Emmanuel Ramde, Andrew Selasi Agbemenu and Benjamin Komme (2022) An Implementation of an optimized dual-axis solar tracking algorithm for concentrating solar power plants deployment, *Scientific African*, Volume 16, ISSN 2468-2276, <https://doi.org/10.1016/j.sciaf.2022.e01228>
- Divine M. Ashigbi, Michael N. Sackey, **Yesuonyeagbe A.K. Fiagbe** and Jonathan Quaye-Ballard (2021) Vibration response based crack diagnosis in beam-like structures using fuzzy inference system, *Scientific African*, Volume 14, ISSN 2468-2276, <https://doi.org/10.1016/j.sciaf.2021.e01051>
- Ramde, Emmanuel Wendsongre, Eric Tutu Tchao, **Yesuonyeagbe Atsu Kwabla Fiagbe**, Jerry John Kponyo, and Asakipaam Simon Atuah. 2020. "Pilot Low-Cost

Concentrating Solar Power Systems Deployment in Sub-Saharan Africa: A Case Study of Implementation Challenges" *Sustainability* 12, no. 15: 6223.  
<https://doi.org/10.3390/su12156223>

- Kojo Adom Quagraine, Emmanuel Wendsongre Ramde, **Yesuonyeagbe Atsu Kwabla Fiagbe**, David Ato Quansah, (2020) Evaluation of time lag and decrement factor of walls in a hot humid tropical climate, *Thermal Science and Engineering Progress*, Volume 20, ISSN 2451-9049, <https://doi.org/10.1016/j.tsep.2020.100758>
- Kokouvi Edem N'Tsoukpoe, Ketowoglo Yao Azoumah, Emmanuel Ramde, **A.K. Yesuonyeagbe Fiagbe**, Pierre Neveu, Xavier Py, Madieumbe Gaye, Arnaud Jourdan (2016) Integrated design and construction of a micro-central tower power plant, *Energy for Sustainable Development*, Volume 31, Pages 1-13, ISSN 0973-0826, <https://doi.org/10.1016/j.esd.2015.11.004>
- Felix Uba, **Yesuonyeagbe A.K. Fiagbe**, Richard Opoku, Francis Kofi Forson, Emmanuel K. Nyantakyi (2020) CFD modelling and analysis of the trajectory and behaviour of oil pollutant particles in the Ghanaian territorial waters, *Scientific African*, Volume 8, ISSN 2468-2276, <https://doi.org/10.1016/j.sciaf.2020.e00411>
- **Fiagbe, Y. A., & Ramde, E. W. (2020). FRICTION COEFFICIENT OF MUNICIPAL SOLID WASTE COMPONENTS. *International Journal of Engineering Technologies and Management Research*, 7(7), 1–7.** <https://doi.org/10.29121/ijetmr.v7.i7.2020.702>
- Uba, Felix, Fiagbe, **Yesuonyeagbe A. K.** (2017), Need for Coastal Water Management Tool for Oil Spill Simulation in Ghana, *International Journal of Scientific & Technology Research Volume 6, Issue 09, September 2017 ISSN 2277-8616 270 IJSTR©2017 www.ijstr.org*
- Tabie, Vitus M., **Fiagbe, Yesuonyeagbe A. K.** (2014) Weight Optimization Of A Lift-Tipping Mechanism For Small Solid Waste Collection Truck. *International Journal Of Scientific & Technology Research Volume 3, Issue 7.*
- **Yesuonyeagbe A.K. Fiagbe**, Fredrick Ferguson and Lawrence E. Ansong (2013), *Sectional Parametric Design and Aerodynamic Performance Estimation In Small Aircraft*, IOSR Journal of Engineering (IOSRJEN) Vol. 3, Issue 9 (September. 2013), ||V2|| PP 17-24
- Sekyere, C.K.K, Davis, F., **Fiagbe, Y.A.K.** and Amoo, R.N.G. (2020) Techno-Economic Assessment of Non-Revenue Water: A Case Study at AER, GWCL. *Journal of Water Resource and Protection*, 12, 480-494. doi: [10.4236/jwarp.2020.126029](https://doi.org/10.4236/jwarp.2020.126029).
- Felix A. Uba, **Yesuonyeagbe A.K. Fiagbe** and Emmanuel A. Sarsah (2013), *Simplified Procedure For Estimating Air-Conditioning Cooling Load In Ghana*, International Journal Of Scientific & Technology Research Volume 2, Issue 9, September 2013
- S.K. Amedorme, **Y.A.K. Fiagbe** (2016) Modification of an Existing Small Hydraulic Jack for Lifting Light Duty Vehicle. *International Journal of Science and Technology* 5 (11)
- **Fiagbe AK Yesuonyeagbe** (2020) Plasma Gasification as Optional Sustainable Treatment of Municipal Solid Waste in Ghana. *Journal of Waste Management and Disposal*, Issue 2. Volume 3. [www.scholarena.com](http://www.scholarena.com) ISSN: 2641-8827
- S.K. Amedorme and **Y.A.K. Fiagbe** (2013), *Investigation of Braking System (Efficiency) of Converted Mercedes Benz Buses (207)*, *International Journal of Science and Technology* Volume 2 No. 11, November, 2013

- P.Y. Andoh, **Y.A.K. Fiagbe**, F. Davis, S. Asaana (2013), *A Mathematical Model To Predict The Quantity Of Defective Bottles In An Automated Bottle Washer Using Factorial Design Technique*, International Journal Of Scientific & Technology Research Volume 2, Issue 10, October 2013
- P.Y. Andoh, F. Davis and **Y.A.K. Fiagbe** (2013), *Monitoring Of Carbon Dioxide Production In A Carbonated Beverage Company Using Factorial Design Technique*, International Journal Of Scientific & Technology Research Volume 2, Issue 10, October 2013
- Felix A. Uba, **Yesuonyeagbe A.K. Fiagbe** and Emmanuel A. Sarsah (2013), *Simplified Procedure For Estimating Air-Conditioning Cooling Load In Ghana*, International Journal Of Scientific & Technology Research Volume 2, Issue 9, September 2013
- **Yesuonyeagbe A.K. Fiagbe**, Fredrick Ferguson and Lawrence E. Ansong (2013), *Sectional Parametric Design and Aerodynamic Performance Estimation In Small Aircraft*, IOSR Journal of Engineering (IOSRJEN) Vol. 3, Issue 9 (September. 2013), ||V2|| PP 17-24
- P.Y. Andoh, F. Davis, **Y.A.K. Fiagbe**, T. Alhassan (2013), *Tyre Pressure Model For Predicting fuel Consumption of Vehicles On Ghana Roads*, International Journal Of Scientific & Technology Research Volume 2, Issue 9, September 2013
- **Y.A.K. Fiagbe**, M.K. Asafo-Adjaye (2013), *Potential of Remanufacturing Industry in Ghana*, Ghana Institution of Engineers 2013 Conference and Annual General Meeting
- Sherry K. Amedorme and **Yesuonyeagbe A.K. Fiagbe** (2013); *Challenges facing Technical and Vocational Education in Ghana*, International Journal of Science and Technology Research, Vol.2 Issue 6.
- **Yesuonyeagbe A.K. Fiagbe** and Michael K. Asafo-Adjay<sup>e</sup>; *Potential of Remanufacturing Industry in Ghana*; Proceedings of Ghana Institution of Engineers 2013 Conference and Annual General Meeting, 20 – 23 March, 2013, Akroma Plaza Hotel, Takoradi.
- **Fiagbe, Y.A.K.**; Mensah, M.Y.; Sackey, M.N. and Andoh, P.Y. (2011), Municipal Solid Waste Tricycle Truck With Lift-Tipping Mechanism For Improved Sanitation, Journal of Ghana Institution of Engineers, Volume 8.
- **Fiagbe, Y.A.K.**, Sackey, M.N., Mensah, M.Y. and Agbeko, E.E.K. (2011), *Kinematic Design of Lift-tipping Mechanism for Small solid Waste Collection Truck*. JUST 31(2)
- Frederick Ferguson, Nasstaja Dasque and **Yesuonyeagbe Fiagbe** (2009), *The Design of Optimised 3D Tip-to-tail Scramjet Engines*, 47<sup>th</sup> AIAA Aerospace Science Meeting including the New Horizons Forum and Aerospace Exposition, 5 – 8 January 2009, Orlando, Florida.
- **Fiagbe, Y.A.K.** and Obeng, D.M. (2006). *Optimum Operation of Hydropower Systems in Ghana when Akosombo Dam Elevation is below Minimum Design value*. JUST 26(2)
- Obeng, D.M. and **Fiagbe, Y.A.K.** (2005). *Modelling of hydropower Systems of Ghana at Low Level Conditions of Akosombo Dam*. JUST 25(2)

## Book Publication

Fiagbe, Yesuonyeagbe A.K. Basic Hydraulics and Pneumatics for Practicing. University Printing Press KNUST, Kumasi, July 2015 ISBN: 978-9988-2-2916-0

## Exhibitions

- Exhibition of Kente Weaving Machine at the 20<sup>th</sup> Anniversary of Otumfuo Osei Tutu II at KNUST on April 15 - 19, 2019.
- Exhibition of Tensile Testing Machine (TechStress) at KNUST Research Conference at KNUST on May 29 – 31, 2023.

## WORKSHOPS/TRAINING COURSES

- September 2020: Participant of KNUST Online Teaching Training
- August 24 – 25, 2015: Oceanography Summer School at Reginal Maritime University, Accra. Organized by Reginal Maritime University, Accra.
- September 25 – 27, 2017: Training Course 1 for Experts and Professionals on Solar Thermal Energy at Koforidua Technical University, Organized by ECOWAS Centre for Renewable Energy Efficiency (ECREEE) in collaboration with AEE-Institute for Sustainable Technologies (AEE INTEC) and Koforidua Technical University, Koforidua
- August 1 – 3, 2018: Training Course 2 for Experts and Professionals on Solar Thermal Energy at Koforidua Technical University, Organized by ECOWAS Centre for Renewable Energy Efficiency (ECREEE) in collaboration with AEE-Institute for Sustainable Technologies (AEE INTEC) and Koforidua Technical University, Koforidua.
- KNUST Summer Schools within the Period.
- World Association of Industrial and Technology Research Organization (WAITRO) Networking Session, at College of Physicians and Surgeons, Ridge, Accra, 7<sup>th</sup> – 8<sup>th</sup> October, 2009.
- ST-EAP Workshop, Accra, 9<sup>th</sup> October, 2009.
- DAAD Summer-School for African Networks (Technology and Development), Magdeburg and Bonn, Germany, 25<sup>th</sup> September to 7<sup>th</sup> October, 2005.
- Solar Based Stand Alone Power Supply Systems Design and Installation Course, Accra, Ghana, 4<sup>th</sup> – 15<sup>th</sup> April, 2005.
- 5<sup>th</sup> Regional College on Modeling, Simulation and Optimization; Accra, Ghana, 3<sup>rd</sup> June – 13<sup>th</sup> June 2003.
- UNESCO/ANSTI Workshop on Renewable Energy Research and Postgraduate Training in Africa; Kumasi, Ghana, 18<sup>th</sup> – 22<sup>nd</sup> February, 2002.

## WORK EXPERIENCE

- August 2023 – present: **Associate Professor** at Mechanical Engineering Department, Kwame Nkrumah University of Science and Technology, Kumasi
- August 2014 – July 2023: **Senior Lecturer** at Mechanical Engineering Department, Kwame Nkrumah University of Science and Technology, Kumasi
- July 2003 – July 2014: **Lecturer** at Mechanical Engineering Department, Kwame Nkrumah University of Science and Technology, Kumasi.  
Teaching of Technical/Engineering Drawing, Principles of Material Science, Introduction to Information Technology, and various Laboratory Experiments.
- August 2005 – July 2007: **Part-time Lecturer** at Mechanical Engineering Department, Kumasi Polytechnic.  
Teaching of Machine Design (Year 2) and Production Planning and Control (Year 3).

- January 2003 – June 2003: **Teaching Assistant (TA)** at Mechanical Engineering Department, Kwame Nkrumah University of Science and Technology, Kumasi. Assign to the Design and Production Section. Act as assistant Manager responsible for the management of Mechanical Engineering Laboratories and Workshops.
- October 2000 – July 2002: **Demonstrator** at Mechanical Engineering Department, Kwame Nkrumah University of Science and Technology, Kumasi. Assigned courses include Thermodynamics; Mechanics of Machines; Internal Combustion Engines; Air Conditioning and Refrigeration; Engineering Drawing.
- October 2000 – September 2002: **Industrial Energy Assessment Personnel (Engineer)** at Industrial Energy Assessment Centre (IEAC), KNUST, Kumasi. Auditing of Industrial energy consumption and making recommendations on means of saving energy and also possible means of minimizing industrial waste. I organize seminars and training for energy assessment purposes. I was organizer and team leader for a number of assessments undertaken at some institutions and industries where energy management recommendations were made.
- October 2000 - June 2001: **Research Assistant** Preparation of Technology and Energy Resource Catalogue for strategic energy plans for Ghana.
- November 1999 - August 2000: **National Service Personal (Tutor)** at Dzodze-Penyi Secondary School, Dzodze. I was a Tutor and taught Physics, Chemistry and Integrated Science.
- July 1997 – August 1999: **Assessment Personnel** at Industrial Energy Assessment Centre, KNUST, Kumasi. This was a part time job while I was still a student.

## POSITIONS HELD

- **Ag Head**, (5<sup>th</sup> – 23<sup>rd</sup> June 2023; 23<sup>rd</sup> – 25<sup>th</sup> May 2023; 4<sup>th</sup> – 5<sup>th</sup> July 2022) Mechanical Engineering Department, KNUST, Kumasi
- **Departmental Examinations Officer** (Dec. 2009 – 2011) Mechanical Engineering Department, KNUST, Kumasi
- **Final Year Project Coordinator** (Sept. 2008 - 2011) Mechanical Engineering Department, KNUST, Kumasi
- **Departmental Examinations Officer** (Sept. 2004 – July 2007) Mechanical Engineering Department, KNUST, Kumasi

## OTHER SERVICES

### University Related

- April 2023 – Date: Chairman of Committee to conduct Ph.D. Qualifying Examination in Mechanical Engineering Department, KNUST.
- September 2020 – August 2022: Moderator for the BSc. Mechanical Engineering programme at KAAF University College.
- September 2020: Member of Committee to enhance the capabilities of ACRU Laboratory for testing Products to Standard.
- May 2020: Member of Committee to facilitate upload of department's course materials, notes and slides online of the virtual class during the covid-19 pandemic school closed down.

- March 2020: Member of Committee to consider an application for part-time lecturer appointment, Department of Mechanical Engineering, KNUST, Kumasi
- 5<sup>th</sup> – 23<sup>rd</sup> June 2023; 23<sup>rd</sup> – 25<sup>th</sup> May 2023; 4<sup>th</sup> – 5<sup>th</sup> July 2022: Acting Head of Department, Mechanical Engineering Department, KNUST.
- April 2023 – Date: Chairman of Committee to conduct Ph.D. Qualifying Examination in Mechanical Engineering Department, KNUST.
- September 2020 – August 2022: Moderator for the BSc. Mechanical Engineering programme at KAAF University College.
- September 2020: Member of Committee to enhance the capabilities of ACRU Laboratory for testing Products to Standard.
- May 2020: Member of Committee to facilitate upload of department's course materials, notes and slides online of the virtual class during the covid-19 pandemic school closed down.
- March 2020: Member of Committee to consider an application for part-time lecturer appointment, Department of Mechanical Engineering, KNUST, Kumasi
- August 1, 2015 – January 2020: Departmental Examinations Officer, Mechanical Engineering Department, KNUST, Kumasi
- Academic Tutor for a group of students each Year
- September 2017 – Date: Research Project team member, Redesign and Improve Tek Block molding machine at Center for Settlement Studies (CSS)
- 2017 – 2019: Member of College Awards Planning Committee, College of Engineering, KNUST
- March 2018: Member of Committee to develop BSc. Railway Engineering Programme, Department of Mechanical Engineering, KNUST
- May 2018: Member of Committee to develop proposal to solicit funds for equipment to furnish Automobile Engineering Laboratory, Department of Mechanical Engineering, KNUST
- September 2018 – August 2020: Chairman of Security Committee, College of Engineering, KNUST
- 2018: Member of Internal Audit team, Faculty of Mechanical and Chemical Engineering, KNUST
- April, 2018 – Date: Member of College of Engineering Research Journal Editorial Committee.
- September 2018 – July 2019: Mentor/Counsellor for residents of East wing rooms 41M – 48M, Independence Hall.
- March 2022 – September 2022: Mentor/Counsellor for residents of rooms 25A – 28A, Independence Hall.
- July 2016: Reviewer of research proposal for Office of grants and Research, KNUST, Kumasi.
- August 1, 2016 – August 31, 2018: Member of Security Committee, College of Engineering, KNUST
- July 2014: Member of committee to investigate graduation of Ali Petras Anaab, an qualified fourth year student of the Department of Agricultural Engineering in College of Engineering at 48<sup>th</sup> graduation of the University.
- January 2022: Chairman of Committee to review entry requirement for undergraduate programmes in Mechanical Engineering Department

- January 2022: Member of Committee to review application for appointment as a Lecturer in the Mechanical Engineering Department
- January 2022: Member of Committee to interview KNUST Bursary and SRC-KBN applicants of Mechanical Engineering Department.
- May 2014: Member of committee to formulate the use of Mechanical Engineering Department resources after splitting.
- 
- Member, Nov. 2010 – College of Engineering Research, Innovation and Conference Committee
- Member, 2009 – 7<sup>th</sup> College of Engineering Research Retreat Organizing Committee
- Chairman, 2007– 6<sup>th</sup> College of Engineering Research Retreat Organizing Committee
- Member, 2005 – 5<sup>th</sup> College of Engineering Research Retreat Organizing Committee
- Member, 2004 – 4<sup>th</sup> College of Engineering Research Retreat Organizing Committee
- Editor – 5<sup>th</sup> College of Engineering Research Retreat Proceedings
- Co-Editor – 4<sup>th</sup> College of Engineering Research Retreat Proceeding

### **National/International Related**

- May 2019: External Examiner: Ashesi University, Berekuso
- November 2022: External Assessor for Promotion: Dr. Damenortey Richard Akwada. Cape Coast Technical University, Cape Coast.
- July 2017: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- April 2018: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- April 2018 – April 2020: Public Relations Officer, Ghana Institution of Engineering, Ashanti Regional Branch, Kumasi.
- 2018: Mentor: 2018 Senior High Schools Engineering Project Competition by Ghana Institution of Engineering, Ashanti Regional Branch, Kumasi.
- September 2019: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- July 2020: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- July 2021: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- June 2022: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- January 2022: Member of Panel of Examiners of Mechanical Engineering Professional Examination by Ghana Institution of Engineering.
- May 2014: Member of committee to review standard for Ghana Standard Authority.
- June 2019: Chairman of Panel of Assessors for Accreditation of B.Sc. Mechanical Engineering Programme at Academic City College, Accra.
- September 2020: Chairman of Panel of Assessors for Accreditation of B.Tech. Mechanical Engineering Programme at Cape Coast Technical University, Cape Coast.
- July 2021: Chairman of Panel of Assessors for Accreditation of B.Tech. Welding and Fabrication Programme at Tamale Technical University, Tamale.
- April 2022: Chairman of Panel of Assessors for Accreditation of HND Automotive Engineering Programme at Accra Technical University, Accra.

- November 2019: External Assessor for Promotion, Dr. Charles Atombo. Ho Technical University, Ho.
- March 2018: External Assessor for Promotion, Mr. Mawufemor Yao Adanu. Ho Technical University, Ho.
- November 2015 – August 2016: Part-time Lecturer at Ho Polytechnic (Now Ho Technical University), Ho.
- January 2023: External Assessor for Promotion, Dr. Seth T.K. Dzokoto. Ho Technical University, Ho
- November 2017: Member of Panel of Judges of Hult Prize Competition at KNUST, Kumasi.
- January 2017: Assessor of Papers for Promotion, Mr. Bernard Aboagye. Sunyani Technical University, Sunyani.
- September 2018: Assessor of Papers for Promotion, Dr. Julius Ceasar Puoza. Sunyani Technical University, Sunyani.
- 2014/15 – 2016/17: External Examiner, Mechanical/Electrical Technology Programmes, University of Education, Winneba.
- February 2017: External Assessor for Promotion, Mr. Emmanuel Yeboah Osei. Kumasi Technical University, Kumasi.
- January 2022: External Assessor for Promotion, Dr. Joseph X.F. Ribeiro. Kumasi Technical University, Kumasi.
- December 2021 – Date: Leader of Mechanical team for Installation of asphalt plant for Sogood Engineering and Construction Ltd at Donaso near Ejisu
- 2014: Visiting Lecturer at Madonna University, Nigeria
- February, 2016: Delegated for academic interaction with staffs and students of Madonna University, Nigeria
- Reviewer of : Peer Review of Research paper for publication in African Identities
- September 2018: Peer Review of Research paper for publication in Water Economy and Policy.
- January 2020: Peer Review of Research paper for publication in International Journal of Engineering
- October 2020: Peer Review of Research paper for publication in Journal of Remanufacturing

## PERSONAL INFORMATION

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**REFEREES**

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