

CURRICULUM VITAE

1. PERSONAL INFORMATION

Name: David Ato QUANSAH

Date of Birth: 13 December 1980

Nationality: Ghanaian

E-mail: daquansah.coe@knust.edu.gh; david.ato.quansah@gmail.com

Phone: +233 266 755 479

2. QUALIFICATIONS:

Academic

Year	Institution	Degree(s) or Diploma(s) obtained:
Aug 2015 – Dec 2018	Norwegian University of Life Sciences (NMBU), Norway	PhD (Renewable Energy and Energy Policy)
Sept 2008- Dec 2009	Institute International d'Ingenierie de l'Eau et de l'Environnement, (2iE), Burkina Faso.	MS Energy Engineering
(Aug 2006 – Feb 2009)	Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana.	MSc. Mechanical Engineering (Thermo-fluids and Energy Systems)
(Oct. 1999 – July 2003)	Kwame Nkrumah University of Science and Technology (KNUST), Kumasi (Ghana)	BSc (Hons). Chemical Engineering

Short-Term Professional Training

Year	Institution	Programme Title/Cert.
February 25	Climate Compatible Growth	Modelling, Policy and Political Economy
Sept 2024	Climate Investment Fund/African Development Bank/Climate Strategies	Just Transition Planning Masterclass for African Policy Makers
April 2024	World Bank Group, Open Learning Campus	Certificate in Designing MRV Systems for Entity-Level Greenhouse Gas Emissions
May 2021	International Energy Agency (IEA)	Energy Statistics and Modelling
May 2021	International Solar Energy Society (ISES)	Scaling UP - High PV and Renewables Penetration Scenarios

Aug 2020	International Solar Energy Society (ISES)	Updates on solar forecasting and other solar resource work of IEA PVPS Task 16
May 2020	International Solar Energy Society (ISES)	Powering Renewables: Women in Solar Energy III
Oct 2019	WASCAL and Potsdam Institute for Climate Impact Research	Technical training workshop on the Ghanaian LEAP WEAP models,
Aug 2014	United Nations Environment Programme (UNEP) and y Millennium Institute, Washington D.C.	Modelling of Green Economy and Sustainable Development Scenarios with Vensim Software (A system dynamics tool).
Aug 2014	Kwame Nkrumah University of Science and Technology, Kumasi (Ghana)	Advancing Science and Technology through Effective Communication (KNUST Summer School)
Sept 2014 – February 2015	Frankfurt School of Finance and Management – UNEP Centre for Climate and Sustainable Energy Finance, Germany	Certified Expert in Climate and Renewable Energy Financing
24 – 27th June 2013	ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE)	Training of Trainers Workshop: HOMER Software for Hybrid RE project design
Nov 2013 – Dec 2013	The World Bank Institute, Washington DC	Certificate - Policy Instruments for Low Emissions Development (LED)
May 2013 – July 2013	United Nations Institute for Training and Research (UNITAR), Geneva, Switzerland	Certificate - Introduction to Green Economy: Concepts and Applications
February 2008	Global Sustainable Energy Solutions and Deng Solar Energy Training Center, Accra Ghana	Certificate in Stand-Alone Solar PV system Design and Installation
Feb 2008	Certificate in Energy Management	Ghana Energy Foundation, Accra (Ghana)
March 2007	Global Sustainable Energy Solutions and Deng Solar Energy Training Center, Accra Ghana	Certificate in solar water-pump installation

3. LANGUAGES:

Language	Speaking	Reading	Writing
English	Fluent	Fluent	Fluent
French	Basic	Good	Basic
Akan (Twi/Fante)	Fluent	Good	Good
Ga	Basic	Basic	Basic

4. COUNTRY EXPERIENCE:

Ghana, Burkina Faso, Norway, Benin, Senegal, Gambia, Mauritius, Arizona USA.

5. KEY EXPERTISE:

Ing. Prof David Ato Quansah currently works as a Associate Professor at the Department of Mechanical Engineering at the Kwame Nkrumah University of Science and Technology (KNUST) and is Director of The Brew-Hammond Energy Centre of the University. He holds a PhD in Renewable Energy and Energy Policy from the Norwegian University of Life Sciences (NMBU) and has over 15 years of experience in university teaching, research and consulting in the area **renewable energy (RE) technologies, energy policy analysis and financial modelling**.

He **teaches undergraduate and postgraduate courses** in Sustainable and Alternate Energy Systems, Renewable Energy Project Analysis, Solar PV Technologies and other basic engineering courses. He is also an Adjunct Senior Lecturer with the Renewable Energy Engineering programme at the Regional Maritime University in Ghana and has previously been Guest Lecturer in Renewable Energy Systems Modelling and Analysis at the Norwegian University of Life Sciences. He has strong proficiency in the use of tools such as **RETSCREEN, HOMER and PVSYST** for the **techno-economic and environmental feasibility** analysis of clean energy projects.

Between 2014 and 2020, he served as the **National Contact Point (NCP)** for Ghana on the EU research and innovation programme, **Horizon 2020**, in the thematic area of *Secure, Clean and Efficient energy*; liaising between the Horizon 2020 programme and researchers in Ghana. He previously **coordinated the Master of Science Programme in Renewable Energy Technologies** (MSc RETs) at KNUST and was also responsible (2009 – 2015) for short courses at The Brew-Hammond Energy Centre, during which more than 300 participants from more than 20 African countries were trained (among others) in Solar PV design and installation, design and construction of biogas systems and RE Project Analysis.

David has widely shared his knowledge and talents on various assignments and projects in Ghana and abroad. At the request of UNIDO and the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), he led the consulting team (in 2010) that developed background documentation on the **ECOWAS Solar Energy Initiative (ESEI)** which was one of early efforts towards a harmonized regional approach to harnessing the huge solar energy resource potential of the sub-region. In 2014, he co-led a project that examined the prospects of solar energy trade within the West Africa Power Pool (WAPP). The project considered opportunities and challenges (including grid integration of highly variable Solar power).

He possessed significant experience in post-project evaluation of energy-related projects, having actively worked on the evaluation of the \$6.5M SWERA (Solar and Wind Energy Resources Assessment) project, spanning 13 countries and the Energising Development project by the GIZ in Ghana and other countries.

Dr Quansah also served as coordinating researcher and the Lead Author for Anglophone West Africa on the Regional study on Capacity Development Needs for Renewable Energy and Energy Efficiency in ECOWAS member countries – commissioned by ECREEE. He has over the past decade provided consulting and advisory services to many other agencies, including **World Bank, United Nations Environment Program (UNEP), the African Union, Natural Resources Canada and the German International Cooperation agency GIZ**.

He is a **Founding Director** of the Center for Energy, Environment and Sustainable Development (CEESD) – a not-for-profit organization (founded in 2009) that offers engineering solutions to developmental challenges in Ghana and Africa. David is a certified **expert in Climate and Renewable Energy Finance** and also holds a number of professional development certifications in low-carbon development strategies and sustainable energy transitions. He is a member of the International Solar Energy Society (ISES), the Ghana Science Association and a Member of the Ghana Institution of Engineers (GhIE).

David has published [widely](#) on renewable (and hybrid) energy system modelling and analyses.

6. PROFESSIONAL EXPERIENCE:

2023 – Date	Director, The Brew-Hammond Energy Centre, KNUST
2023 – Date	Associate Professor, Department of Mechanical Engineering, KNUST
2022 – 2025	External Examiner, Department of Mechanical, Production and Energy Engineering, Moi University, Kenya
2022 – 2025	Member, Governance Council of <i>Scaling-up Renewables in Ghana Project</i> (SREP). Ministry of Energy, Ghana.
2022 – Date	External Examiner, Makerere University Business School, Uganda
2022 – Date	External Moderator, BSc Energy and Sustainability Programme, University of Environment and Sustainable Development, Somanya, Ghana.
2022 – 2023	Academic Coordinator, KNUST Engineering Programmes in The Gambia
2021 – 2023	Deputy Network Coordinator - West Africa Sustainable Engineering Network for Development (WASEND)
2020 – 2022	Chairman, Committee on Sustainable Development Goals, Faculty of Mechanical and Chemical Engineering KNUST
2019 – 2023	Senior Lecturer, Department of Mechanical Engineering, KNUST
2019 – 2024	Partnerships Coordinator, College of Engineering, KNUST
2019 – 2020	External Reader, Master of Sustainability Programme, Chatham University, Pittsburgh, PA, United States.
2015 – 2018	Doctoral Researcher, Renewable Energy Group, MINA, NMBU, Norway
2014 – 2019	Horizon 2020 National Contact Point for Ghana, on the "Secure, clean and efficient energy" research theme.
2013 – 2015	Coordinator, MSc Programme, Renewable Energy Technologies, KNUST
2012 – 2019	Lecturer, Department of Mechanical Engineering, KNUST
2010 – 2012	Assistant Lecturer, Department of Mechanical Engineering, KNUST
2010 – 2015	Coordinator of Short Courses, The Energy Centre, KNUST
2009 – 2010	Research Assistant, The Energy Centre, KNUST

7. Selected projects and consultancies

- ✓ 2024/2025. **Consultant** (Ghana Climate Innovation Centre). Enhancing Ghana's E-mobility industry-opportunities for Green SME's and Essential Policy Reforms. An assignment to determine the current state of e-mobility in Ghana, challenges, and opportunities and to determine what it will take to overcome those challenges.
- ✓ 202/2025. **Principal Investigator** (CCG, UK). **Scaling up Distributed Solar PV adoption in Ghana: a focus on the commercial sector (DIST-PV)**. Funded by the Climate Compatible Growth (CCG) initiative of the UK Government and implemented with the University College London (UCL).
- ✓ 2024. **Consultant/Trainer** (GIZ). Delivery of hands-on training on the use and operation of RE/EE software and hardware for selected staff of Electricity Company of Ghana (ECG) and Northern Electricity Distribution Company (NEDCo) - RETScreen, HOMER Grid, and Power Quality Analysers.
- ✓ 2024. **Carbon Markets Expert** (NovaSphere Canda). Carbon Offsets and Assetization in West Africa - An overview of past trajectories and high-level scenario analysis. This assignment presented an analysis of carbon market activity in four West African countries (**Ghana, Liberia, The Gambia and Togo**), with the view to informing policy formulation to strengthen local participation in the carbon offset market value chain, increase co-benefits to local communities and address the emerging negative and burning issues.
- ✓ 2023/2024. **Energy Policy and Emissions Analysis Expert** (NovaSphere Canda / MRV for Climate Action Programme). Transformative project titled Harnessing GHG mitigation opportunities in the Solid Waste Management (SWM) sector in Ghana. Improvement of MRV Systems in Ghana (Solid Waste Sector).
- ✓ 2023/2024. **Principal Investigator** (CCG, UK). Political Economy of Land Access for Large Scale Solar Projects in Ghana (PELAND4SOLAR). Funded by the Climate Compatible Growth (CCG) initiative of the UK Government and implemented with the University College London (UCL).
- ✓ 2023/2024. **Renewable Energy Expert** (UNIDO). Development of a standard and compliance framework for low-emission transport and an electric mobility roadmap for São Tomé and Príncipe.
- ✓ 2023. **Short-Term Local Expert**. Development of renewable energy and energy efficiency business models for power distribution utilities in Ghana (ECG/NEDCO).
- ✓ 2023. **Energy Expert** (USAID): External Evaluation of The ECOWAS Activities Funded Under Power Africa. Covered support to the West Africa Power Pool (WAPP), The ECOWAS Regional Electricity Regulatory Authority (ERERA) and the ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE). (March - July 2023)
- ✓ 2022/2023. Project Coordinator (KNUST): Energy-Self-Sufficiency for Health Facilities in Ghana (EnerSHelF) (Sept 2022 – June 2023).
- ✓ 2023. **Senior Renewable Energy Specialist** (Green Climate Fund): Technical Assistance for Accelerating Solar Action Programme (ASAP) of Ecobank, Ghana (RFP 2019/C/041). (April - Oct. 2023)
- ✓ 2023. **Energy Transition and Jobs Expert**. Consultant, Foundation INSTITUT DU DÉVELOPPEMENT DURABLE ET DES RELATIONS INTERNATIONALES (IDDRI). Within the framework of the Africa-Europe Ukàmà platform for sustainable development thinkers, conducted an assessment on industrialization and job creation in the context of just energy transition in Namibia. Namibia's Green Hydrogen agenda was a major attention area.
- ✓ 2022. **Consultant**. Consultancy Services for The Assessment of The Potential Impact of Ghana's Energy Transition Pathway. Ministry of Energy Ghana/World Bank (Contract no. 7206208)
- ✓ 2020/2021. **Consultant**, SNV Netherlands Development Organization. Study on "Addressing barriers and opportunities in solar powered irrigation for smallholder farmers in Ghana". A

consultancy assignment to support the green and circular economy in Ghana under the Boosting Green Employment and Enterprise Opportunities in Ghana (GrEEn) project.

- ✓ 2021/2022. **Consultant**, GLZ. Technical Assessment and Commissioning of Solar Powered Irrigation Systems (SPIS) In Ghana
- ✓ 2019. **Consultant**, **GLZ**. Terminal Evaluation of Phase 1 and Phase 2 of the Energising Development (EnDev) Project to assess the attainment of project goals and objectives. EnDev sought to improve incomes and livelihoods by supporting electricity access for agricultural and other SMEs.
- ✓ 2020/2021. **Consultant**, Ministry of Energy/African Development Bank (AfDB). Consultancy Services for Selection, Assessment and Sensitization of Public Institutions for Net-Metering Solar PV in Ghana (MOE/SREP/PPF/P2/CS/QCBS/02).
- ✓ 2018 – **Renewable Energy Expert**. A short-term assignment to conduct training in Port Louis, Mauritius on renewable energy technologies, policies and markets, for policymakers and utility companies in **Indian Ocean Commission** member-countries (Mauritius, Seychelles, Madagascar, Comoros and Reunion). Contract by Renewables Academy (**RENAC**) AG Berlin, Germany.
- ✓ July – Oct 2018 – **Consultant** - An assignment by **Danish Energy Management** (on behalf of the World Bank) to conduct a study on Energy Efficiency Investment Opportunities in Ghana.
- ✓ 2017, **Panel Chairman and Moderator**, “Facilitating a Conducive Environment for the Growth of Green Finance and Green Energy”, Ghana Green Finance Conference (November 2017). The session hosted officials from Central Bank of Ghana, Science and Technology Ministry, Energy Commission, Private Enterprise Federation, etc. A Conference was organized by the African Guarantee Fund (AGF), the International Trade Centre (ITC) and the Nordic Development Fund (NDF).
- ✓ 2015, **Visiting Fellow**, Photovoltaic Reliability Laboratory (PRL) Arizona State University, Mesa, AZ, USA as part of a collaborative project on solar photovoltaic module performance testing and characterization.
- ✓ 2015 – 2017, **Guest Lecturer**, Norwegian University of Life Sciences (NMBU). Guest Lecturer in application of renewable energy analysis tools (RETSCREEN, HOMER and PVSyst) for project modelling and financial viability assessment. Master of science class in renewable energy.
- ✓ 2014 – **Consultant** to the African Union for the Development of technical manual on Design and Installation Guidelines for Solar PV Based Mini-grids in Africa.
- ✓ 2014. **Consultant**. A task by the African Union (through African Energy Commission – AFREC) to develop a *Technical Guide for the Design, Installation, Operation and Maintenance of Grid Connected Small Wind Farm in Africa*.
- ✓ 2014 – 2015. **Consultant**. Development of a strategy document (within GE-TOP Ghana) on the implementation of cross-border solar PV electricity trade (case study Ghana-Burkina Faso).
- ✓ 2013 – 2014 – **Consultant** to the United Nations Environment Programme (UNEP) on the project titled Solar Export Potential Study (SEPS). The study was conducted as part of the Green Economy and Trade Opportunities (GETOP) to assess the possibility and potential of solar electricity export trade within the West African Power system.
- ✓ 2012 – 2013, Consultant to ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) on a Regional study to assess the capacity development needs in renewable energy and energy efficiency. <http://www.ecreee.org/page/capacity-needs-assessment>
- ✓ 2013, **Consultant** to ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) and the International Renewable Energy Agency (IRENA) to develop curriculum and deliver training to policy-makers and regulators in the ECOWAS sub-region on policies, regulatory frameworks and incentive schemes for promoting renewable energy. This was

under the RENA/ECREEE initiative on Promoting a Sustainable Market for Photovoltaic (PV) Systems in the ECOWAS Region (ProSPER).

- ✓ 2010 – 2012, **Project Manager**, Capacity upgrading for West African Partners in REEP Project. A world bank- funded project to position KNUST in Ghana and 2iE in Burkina Faso as key nodes to support ECREEE. (TF096613)
- ✓ 2014, **National Trainer**. Conducted Ghana national training on techno-economic modelling of hybrid energy systems using HOMER Software, under contract from the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE).
- ✓ 2015, **Course Instructor**. A *Renewable Energy Project Analysis Course* conducted by the Energy Centre, KNUST. The short training programme was organized to train participants in technical and financial modelling and analysis of various renewable energy projects.
- ✓ 2013, **Project Manager**. Promoting renewable energies in West Africa by knowledge exchange with interactive online map (Project No. EREF-REG2-WP11). A project to promote renewable energies in West Africa by knowledge exchange with interactive online map. Funds provided by ECREEE and Swiss Agency for Development and Cooperation (SDC). Jointly implemented with Verein repowermap.org of Bern Switzerland.
- ✓ 2012, **Working Group Secretary**. IRENA/Clean Energy Ministerial workshop on Global Solar and Wind Atlas, Abu Dhabi, January 2012.
- ✓ 2012, **Project Supervisor**, Installation and Commissioning of 20 kWp experimental grid-connected Solar PV system at the College of Engineering, KNUST. This installation comprised the colocation of five different photovoltaic module technologies equipped with sensors for performance data acquisition and reporting.
- ✓ 2012, **Project Supervisor**, Installation and Commissioning of Automatic Weather Station for the long-term monitoring of solar radiation, wind speed & direction, ambient temperature and other environmental variables.
- ✓ 2011, **Technical Assistant**. Assessment of National Capacity for Measuring and Reporting Energy Poverty in Ghana. A project by the United Nations Industrial Development Organization (UNIDO) in five West African countries on the framework for measuring and reporting energy poverty.
- ✓ 2011, **Consultant**, Natural Resources Canada/Canmet Energy. Conducted a study on uptake of RETScreen Clean Energy Analysis tool in Academia, Government Agencies and other organizations in the renewable energy (RE) sector in Ghana. Study included of user assessment and opinion on the strengths and weaknesses of RETScreen.
- ✓ 2011. **Consultant**, GIZ. "Conversion of Power Supply to Renewable Energy at the University KNUST, Ghana". An assignment to develop an implementation strategy for the conversion of power supply to renewable energy at the Kwame University of Science and Technology (KNUST).
- ✓ 2010. **Solar Energy Expert**: Contract by United Nations Industrial Development Organization (UNIDO) on behalf of ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE) to develop a Technical Discussion Paper on Solar Energy in West Africa ECOWAS Solar Energy Initiative (ESEI). Obligation No. 21013495.
- ✓ 2010. **Consultant and Project Manager**. "Energy Access and Productive Uses for the Urban Poor (EAFUP)" A World Bank ESMAP-Cities Alliance funded scoping study on productive activities in slum communities in Ghana and the role of modern energy services. <https://www.esmap.org/node/2256>
- ✓ 2010, **Project Technical Assistant**: UNEP Terminal Evaluation of Solar and Wind Energy Resource Assessment (SWERA) Project, (GF/4040-01-10 GFL/2721-01-4334). Used Review of Outcomes to Impact (ROtI) approach to Impacts to date of SWERA. https://wedocs.unep.org/bitstream/handle/20.500.11822/311/Terminal_evaluation_of_the_UNEP_GEF_project_Solar_and_Wind_Energy_Resource_Assessment_SWERA.pdf?sequence=1&isAllowed=y

8. Applied Research and Academic Experience.

8.1 Thesis Supervision/Co-Supervision

PhD Thesis:

1. Husserl Djouodjinang Fonou. **Hybrid Hydrogen-Gas Power Plants in Sub-Saharan African Countries: Analysing and Upgrading the Power Plants**. Status (Completed (2021- 2025). PhD Mechanical Engineering. University of Buea, Cameroon
2. Mr. Alfred Dawson Quansah. **A Techno-Economic Assessment of solar-powered membrane desalination system for the production of safe drinking water on Offshore Petroleum facilities in Ghana**. Status – Ongoing (2020-date). Programme: PhD Sustainable Energy Technologies, KNUST.
3. Mr. Reuben Nii Odoi. **Modelling of Water-Energy-Carbon nexus for sustainable large-scale drinking water treatment plant**. Status – Ongoing (2020-date). Programme: PhD Sustainable Energy Technologies, KNUST.
4. Mr. Saviour Woangbah. **Greening the Telecom Sector in Ghana - Quantitative Assessment of Carbon Footprint and Options for Decarbonization**. Status – Ongoing (2022-date). Programme: PhD Sustainable Energy Technologies, KNUST
5. Mr. Dramani Bukari. **Enabling the Sustainable Deployment of Decentralised Renewable Hybrid Mini-Grids for The Electrification of Island and Lakeside Communities in Ghana**. Status – Completed (2019-2023). Programme: PhD Sustainable Energy Technologies, KNUST.
6. Mr Seed Abdul-Ganiyu. **Performance Analysis and Enhancement of Hybrid Photovoltaic-Thermal (PVT) Solar Systems**. Status – Completed (2020 – 2022). Programme: PhD Renewable Energy Specialization (Ecology and Natural Resources Management Programme).
7. Ms Rahimat Oyiza Yakubu. **Modelling and Technical Assessment of Bifacial Solar Photovoltaic Modules in Low Latitude Regions**. Status – Completed (2020-2023). Programme: PhD Sustainable Energy Technologies, KNUST.
8. Benjamin Atribawuni Asaaga. **Modelling Performance and Reliability of Photovoltaic and Photovoltaic Thermal Modules**. Status – Ongoing (2021-date). Programme: PhD Mechanical Engineering, KNUST

Masters Thesis

1. Robinson Tanyi. **Towards the Development of Hydrogen as an Energy Source in Ghana: A Techno-Economic Assessment**. Status – Completed (2021 – 2023). Programme: MPhil Renewable Energy Technologies, KNUST.
2. Senakpon Elignan Johannes E. Goudjanou. **MODELING AND ANALYSIS OF A HYBRID ENERGY SYSTEM FOR AGRO-ECOLOGICAL INDUSTRIES IN BENIN**. Status – Completed (2022 – 2024). Programme: MPhil Renewable Energy Technologies, KNUST.
3. Mr Eric Agyeman. **Solar PV in a Circular Economy – An Assessment of End-of-Life Management Options**. Status – Completed (2021 – 2023). Programme: MPhil Renewable Energy Technologies, KNUST.
4. Mr Charles Oppon., **Performance Degradation Studies on Crystalline and Non-Crystalline Photovoltaic Modules at KNUST, Ghana**. Status – Ongoing (2021 – date). Programme: MPhil Renewable Energy Technologies, KNUST.

5. Ms Barbara Aba Akomanyi. **An Assessment of Cooking Energy Usage in Ghana's Senior High Schools - Case Study of Selected Schools.** Status – Completed (2021 – 2023). Programme: MPhil Renewable Energy Technologies, KNUST.
6. Mr John Bain, **Techno-Economic Feasibility Analysis of Mini Pumped Hydroelectric Storage System Adoption in Islands and Lake Communities In Ghana.** Status – Completed (2021 – 2023). Programme: MPhil Renewable Energy Technologies, KNUST.
7. Mr Daniel Chika, **Technical and Economic Potential Assessment of Solar Photovoltaic System for Electricity Production at The College of Engineering (COE), KNUST-Ghana.** Status – Completed (2020 – 2021). Programme: MSc Renewable Energy Technologies, KNUST.
8. Mr. Daniel Asante, **Fabrication, Optimization and Characterization of Nano-Porous ZnO Thin Film Coating Method Using Dye Sensitized Solar Cells (DSSC),** MPhil Renewable Energy Technologies, KNUST. Status – (completed) (2019-2021).
9. Mr. Joseph Oti Bioh, **Sustainable Development of Dye Sensitized Solar Cells Using Beetroot and Chlorophyll.,** MSc Sustainable Energy Management, University of Energy and Natural Resources (UENR). Status – (completed) (2020-2021).
10. Ms. Miriam Nkechi Nwaogaraku, **Towards Clean Cooking in Africa: A Techno-Economic and Environmental Assessment Of Solar PV-Assisted Electric Cooking.** Status – Completed (2021 – 2022). Programme: MSc Renewable Energy Technologies, KNUST.
11. Atchou Woenagnon. **Feasibility Study of PV- Fuel Cell Hybrid Stand-Alone Power System for Remote Telecoms Cell Site Base Stations in Ghana** (2019 - 2020). Programme: MSc Renewable Energy Engineering, Regional Maritime University, Ghana. Completed
12. Mr. Kojo D. Adjale. **Review of Models for The Wholesale Electricity Market in Ghana.** Status – Completed (2019- 2020). Programme: MEng Energy Systems Engineering, KNUST Ghana.
13. Mr. Kofi Asante-Mensah. **Demand-Side Options for Managing Household Electricity Consumption in Ghana: A Case Study of Kpone-Dortia in the Kpone Katamanso Municipality.** Status – Completed (2019- 2021). Programme: MEng Energy Systems Engineering, KNUST Ghana.
14. Mr. Charles Awuah Agyapong: **Energy Efficiency of Lights in Commercial Buildings Complying with Ghana Building Code – Case Study of Fidelity Bank.** Status – Completed (2019-2021). Programme: MEng Energy Systems Engineering, KNUST Ghana.
15. Mr. Jalel Moujaled. Title: **Resource Assessment for Utility-Scale Solar Photovoltaic Projects: A Comparative Assessment of Databases, Simulations and Ground Observations.** Status – Completed (2014). Programme: MSc Renewable Energy Technologies, KNUST
16. Mr. Saviour K. Woangbah. Title: **Assessing the Viability of Powering Telecom Base Station with Solar PV-Diesel Hybrid System: A Case Study at a Telecom Cell Site.** Status – Completed (2014). Programme: MSc Renewable Energy Technologies, KNUST
17. Mr. Peter Acheampong. Title: **Feasibility of Using Solar PV Together with LED to Power Streetlights in Ghana.** Status – Completed (2014). Programme: MSc Renewable Energy Technologies, KNUST

18. Mr. Samuel Denkyira. Title: **Design of a Stand-Alone Solar PV System for a Remote Base Station in Ghana - A case Study at Abofrem Vodafone Cell Site**. Status – Completed (2014). Programme: MSc Renewable Energy Technologies, KNUST
19. Mr. Stephen Afonaa-Mensah. Title: **The use of Solar PV Systems for Rural electrification Projects in Ghana: Consideration of Community-Level Isolated Grid Systems**. Status – Completed (2014). Programme: MSc Renewable Energy Technologies, KNUST

8.2 Journal Reviews:

Name of Journal	Publisher
Sustainable Energy Technology Assessments	Elsevier
Solar Energy	√
Renewable and Sustainable Energy Reviews	√
Journal of Cleaner Production	√
Scientific African	√
Energy Science and Engineering	Wiley
Energy Exploration & Exploitation	SAGE Publishers
Cogent Engineering	Taylor & Francis
Clean Technologies and Environmental Policy	Springer

8.3 Other Reviews:

Name of Publication	Publisher
Renewables Global Status Report (2012 – date)	REN21 Secretariat, Paris
Ghana Renewables Readiness Assessment (2014)	International Renewable Energy Agency (IRENA)
Ghana Local Content Policy (Power Sector)	Ministry of Power, Ghana
Ghana Gas Utilization Masterplan	Ministry of Energy, Ghana

8.4 Courses Taught (University Teaching):

Postgraduate	<ul style="list-style-type: none"> ✓ Solar Energy Technology ✓ Energy Conversion and Utilization ✓ Sustainable and Alternate Energy Systems ✓ Renewable Energy Project Analysis ✓ Research Methods ✓ Energy Policy, Economics and Technology
Undergraduate	<ul style="list-style-type: none"> ✓ Renewable Energy Conversion ✓ Applied Thermodynamics ✓ Basic Mechanics, ✓ Introduction to Fluid Mechanics, ✓ Heat Transfer

9. PROFESSIONAL AFFILIATIONS:

- ✓ International Solar Energy Society
- ✓ Ghana Science Association
- ✓ Ghana Institution of Engineering
- ✓ Regional Studies Association

SELECTED PUBLICATIONS

JOURNAL ARTICLES

1. Husserl Djouodjinang-Fonou, **David Ato Quansah**, Mensah Lena Dzifa, Rahimat Oyiza Yakubu, Armand Fopah-Lele (2024). Investigation of hybrid power-to-hydrogen /natural gas and hydrogen-to-X system in Cameroon. *Energy Reports* Volume 11, June 2024, Pages 5271-5285.
<https://www.sciencedirect.com/science/article/pii/S2352484724002877>
2. Robinson J. Tanyi, Lena D. Mensah, Augustine Ntiamoah, **David A. Quansah** Muiyiwa S. Adaramola (2024), *Techno-Economic Assessment of Hydrogen Production in Ghana through PV Electrolysis and Biomass Gasification*. *Oxford Open Energy Journal*
<https://academic.oup.com/ooenergy/article-abstract/doi/10.1093/ooenergy/oiae014/7875976>
3. R. Akpahou, F Odoi-Yorke, L. D. Mensah, **D. A. Quansah**, F. Kemausuor (2024). "Strategizing Towards Sustainable Energy Planning: Modeling the mix of future generation technologies for 2050 in Benin" *Renewable and Sustainable Energy Transition*, pp 100079.
<https://www.sciencedirect.com/science/article/pii/S2667095X24000035>
4. R. Akpahou, L. D. Mensah, **D. A. Quansah** and F. Kemausuor (2024). "Energy planning and modeling tools for sustainable development: A systematic literature review," *Energy Reports*, vol. 11, pp. 830-845, 2024.
<https://www.sciencedirect.com/science/article/pii/S2352484723015688>
5. Rahimat O Yakubu, **David A Quansah**, Lena D Mensah, Wisdom Ahiataku-Togobo, Peter Acheampong, Muiyiwa S Adaramola (2023). Comparison of ground-based and floating solar photovoltaic systems performance based on monofacial and bifacial modules in Ghana. *Energy Nexus*, Volume 12, December 2023, 100245, Elsevier BV.
<https://doi.org/10.1016/j.nexus.2023.100245>
6. Yakubu, Rahimat; Mensah, Lena; **Quansah, David**; Adaramola, Muiyiwa S A (2024) Systematic Literature Review of Bifacial Photovoltaic Module and Its Application. *The Journal of Engineering*, Wiley.
<https://ietresearch.onlinelibrary.wiley.com/doi/abs/10.1049/tje2.12421>
7. Romain Akpahou, Lena D Mensah, **David A Quansah** (2023). Renewable Energy in Benin – Current Situation and Future Prospects. *Clean Energy*, Vol. 7, Issue 5, pages 952-961, Oxford University Press. <https://doi.org/10.1093/ce/zkad039>
8. Daha Hassan Daher, Mohammadreza Aghaei, **David A. Quansah**, Muiyiwa S. Adaramola, Parviz Parvin, Christophe Ménézo (2023). Multi-pronged degradation analysis of a PV power plant after 9.5 years of operation under hot desert climatic conditions. *Progress in Photovoltaics: Research and Applications*, Wiley.
<https://onlinelibrary.wiley.com/doi/full/10.1002/pip.3694>
9. Rahimat O Yakubu, Lena D Mensah, **David A Quansah**, Muiyiwa S Adaramola, Yusuf Hammed (2022). Performance evaluation of bifacial solar PV modules under different climatic regions in Nigeria. *E3S Web of Conferences (EDP Sciences)*, vol. 354, pp02006. *International Energy2021-Conference on "Renewable Energy and Digital Technologies for the Development of Africa"* <https://doi.org/10.1051/e3sconf/202235402006>
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