Curriculum Vitae: Samuel Gyamfi



Prof. Samuel Gyamfi
(PhD, MSc, BE, MGhiE,MIEAust)

Born on 10.07.1975 in Kumasi, Ghana

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Samuel Gyamfi is a Professor in the Department of Renewable Energy Engineering at the University of Energy and Natural Resources, Sunyani, Ghana, and a Certified Sustainable Energy Management Professional. He is currently the Director of the Regional Center for Energy and Environmental Sustainability. Samuel held the Dean of Students Affairs position from August 2017 to August 2019. He was the Acting Head of the Mechanical and Manufacturing Engineering Department from August 2015 to August 2017. He sreved as the deputy director for the Regional Centre for Energy and Environmental Sustainability from 2019 – 2025.

Samuel was appointed a Senior Adjunct Lecturer at the School of Engineering and Information Technology of Murdoch University, Western Australia from August 2014 to July 2017. He held Lecturer Position in the same school from 2011 to 2014. He held Research Associate and Teaching Assistant positions at the Advanced Energy and Materials Systems Laboratory (AEMSLab) at the University of Canterbury, New Zealand, from 2010 to 2011. In 2007- 2008 he was appointed a Visiting Research Scientist at the Juelich

Research Centre in Germany where he was involved in energy demand side management and demand response modeling.

Samuel led the implementation of a five-million-dollar China South-South Cooperation project between the Ghana government and the government of the People's Republic of China. He played a key role in writing of the roposal that won and established the Regional Center for Energy and Environmental Sustainability (RCEES), one of the World Bank Centers of Excellence at UENR. Samuel has led and participated in several nationally and internationally funded research and consultancy projects commissioned by organizations including the European Commission, UK Research and Innovation (UKRI), German Academic Exchange Service (DAAD), Millenium Development Authority (MiDA), and industry partners. He has published widely in reputable peer-reviewed journals and continues to supervise postgraduate research while contributing to curriculum development and capacity building in renewable and sustainable energy systems.

Samuel received his Ph.D. in Mechanical Engineering (specializing in residential electricity demand response assessment and modeling) from the University of Canterbury, New Zealand in 2010 and his MSc in Energy Systems from the Aachen University of Applied Sciences in Germany in 2004. He obtained his Bachelor's degree in Geodetic Engineering from KNUST in 2001. His main research interest is in smart distributed energy systems, sustainable energy for rural and island communities, utility demand side management, and how human factors can be used to develop technology and communication systems to improve energy efficiency behavior.

1. PERSONAL INFORMATION

Name	Prof. Samuel Gyamfi
Date of Birth	10th July, 1975
Country of Citizenship/Residence	Ghana National Permanent Returning Resident in New Zealand.

2. EDUCATION

Institution and Date (from / to)	**Degree(s) or Diploma(s) obtained**
University of Canterbury, New Zealand, 17/04/2006 – 25/03/2010	**Doctor of Philosophy (Ph.D.),** Mechanical Engineering. **Thesis Title:** Demand Response Assessment and Modelling of Peak Electricity Demand in the Residential Sector: Information and Communication Requirements.
University of Applied Sciences, Aachen, Germany, 07/10/2002 – 17/09/2004	**Master of Science (MSc),** Energy Systems **Thesis Title**: Life Cycle Assessment (LCA) Energy Studies: The European Situation.

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, 20/10/1997 – 14/09/2001	**Bachelor of Science (BSc) Honours,** Geodetic Engineering
Kumasi High School, Kumasi, 17/10/1994 – 20/09/1996	General Certificate of Education (GCE) 'Advance' Level
Toase Secondary School	School Certificate and General Certificate of Education (SC/GCE) 'Ordinary' Level

3. COUNTRIES WITH PROFESSIONAL EXPERIENCE

Resident:	New Zealand (4 years) Australia (4 years) Germany (6 years) Ghana (10 years)
Non-Resident	Niger, Algeria, and South Africa

4. CURRENT AND PREVIOUS POSITIONS:

Employment Records & Positions Held/Hold (with dates):

Period	Employing organization; title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
21/03/2025-Present	**Employer:** School of Energy, University of Energy and Natural Resources Sunyani, Ghana. **Position:** Full Professor in the Department of Renewable Energy Engineering.	**Ghana**	• Lecture Engineering Students • Supervise M.Sc. and PhD candidates • Conducting Research • Undertaking Outreach Activities.
24/08/2021 -20/03/2025	**Employer:** School of Engineering, University of Energy and Natural Resources Sunyani, Ghana. **Position:** Associate Professor in the Department of Renewable Energy Engineering.	**Ghana**	• Lecture Engineering Students • Supervise M.Sc. and PhD candidates • Conducting Research • Undertaking Outreach Activities.
23/08/2021 -05/08/2014	**Employer:** School of Engineering, University of Energy and Natural Resources Sunyani, Ghana.	**Ghana**	• Lecture Engineering Students • Supervise M.Sc. and PhD candidates • Conducting Research

	Position: Senior Lecturer in the Department of Renewable Energy Engineering.		• Undertaking Outreach Activities.
11/04/2011 – 04/08/2014	**Employer:** School of Engineering and Information Technology Murdoch University, Western Australia. **Position;** Lecturer in Energy Studies and Renewable Energy Engineering	**Australia**	• Lecture Engineering Students • Supervise M.Sc. and PhD candidates
19/10/2006 – 11/09/2008	**Employer:** Mechanical Engineering Department, University of Canterbury. **Position;** Teaching Assistant **Reference:** Prof. Susan Krumdieck Tel: +64 364 2987 ext. 7249 **Email: S.Krumdieck@hw.ac.uk**	**New Zealand**	***Courses Taught (***Under the supervision of Prof. Susan Krumdieck): • Energy Engineering • Thermodynamics

5. TEACHING AND SUPERVISION

i. Thesis Supervision - 10 Ph.D., Over 40 MSc/MPhil
ii. Solar Thermal Systems and Applications, Energy Management, Renewable Energy Engineering Projects, Energy Systems, Energy in Society, Renewable Energy Devices

6. PHD THESIS SUPERVISED

1. **Martin Kyereh Domfeh (2016)** Numerical simulation of free surface vortices at single and multiple intakes for hydropower plants using OpenFOAM.
2. **Bernard Aboagye (2022)** Technical Performance Audit of Installed Solar Photovoltaic Systems Under Climatic Conditions in Ghana.
3. **Iweh Chu Donatus (2023)** Integration of Distributed Solar Photovoltaic Energy System into the Electric Grid: Options for Sustainable Electricity Supply in Cameroon.
4. **Ayuketah Yvan Jose Agbor (2023)** Evaluating Sustainable Energy Pathways for Cameroon: A Long-Term Approach.
5. **Forson Peprah (2023)** Techno-Economic and Policy (TEP) Analysis of Electricity Prosumption in Ghana: Implications for Sustainable Electricity Development.
6. **Kwame Asante (2024)**Techno-Economic Analysis of Waste-to-Energy with Solar Hybrid Electricity Generation in Ghana.
7. **Timothy King Avordeh (2024)** Dynamic Assessment and Modelling of Residential Electricity Demand Response Using K-Means Clustering Algorithm.

8. **Umar Museheeh Lahai (2025)** Investigation of Post-Combustion Carbon Capture Potentials of Selected Improved Biomass Cookstoves in Sierra Leone.

7. RESEARCH GRANT OBTAINED

Title	Role	Project Amount /Funder	Status (As of 31 Feb 2025)
GreenTech Mobility: Advancing sustainable technologies through academic collaboration in Africa Africa stands at a critical juncture in its pursuit of sustainable technologies, with its rich natural resources and youthful population offering immense potential to address global challenges such as climate change, energy access, and economic growth. However, progress is hindered by a lack of skilled professionals, insufficient collaboration between academia and industry, and outdated higher education systems. These gaps demand urgent action to build the human and institutional capacities necessary for sustainable development and economic transformation. The GreenTech Mobility project titled "Advancing Sustainable Technologies through Academic Collaboration in Africa" intends to equip 26 Master's students, 9 Ph.D. candidates, 12 trainees, and 9 academic staff with technical and professional skills for emerging green industries, modernize curricula to align with Africa's development priorities, and strengthen African higher education institutions to deliver quality education and foster global collaboration. Inclusivity and gender equity are central to the project's mission, with targeted	Project lead (Ghana)	€3,000,000/European Commission	Ongoing, 2025-present

scholarships (50%) for women and marginalized groups, mentorship programs in STEM fields, and institutional policies addressing structural inequities. This will foster a more inclusive academic and professional environment, and empowers women and marginalized groups to take on leadership roles in the green technology sector.			
Hosting of Sustainable Energy Service Centres (SESCs) Regional Centre for Energy and Environmental Sustainability (RCEES) in Consortium with Sunyani Technical University, Kumasi Technical University and the Energy Foundation was selected to host one of the three Sustainable Energy Service Centres (SESC) in Ghana established by the Millennium Development Authority (MiDA) under the Millennium Challenge Compact (MCC). The SESC are to provide tertiary education services including training and certification of energy auditors and sustainable energy (SE) services for promoting SE market under the Energy Efficiency and Demand Side Management (EEDSM) component of the Compact Program. RCEES is the leader of this consortium.	Lead Investigator (Center Director)	Millennium Development Authority (MiDA)	Ongoing, 2020-2030
Professional Education for Renewable Energy in Ghana (ProREG) In the ProREG project, the Technische UniversitätBerlin is working with the universities Kwame Nkrumah University of Science and Technology (KNUST) and the University for Energy and Natural Resources (UENR) as well as six	Principal Investigator	€ 615,151 German Federal Ministry for Economic Cooperation and Development (BMZ) through TU Berlin/DAAD	2022-2025

corporate partners to address the lack of labour market relevance of education in the field of renewable energy in Ghana.			
Erasmus+ Project no. 586416: Enhancing Entrepreneurship, Innovation, and Sustainability in Higher Education in Africa (EEISHEA) The project is under the Erasmus+ Capacity Building in Higher Education programme. It involves 5 African and 5 European universities. The project aims: • To initiate sustained educational change in Higher Education study programmes, to ensure curricula that are highly relevant to the contemporary economic and social needs of Africa. • To equip graduates with skills and competences for employability and self-employment. To foster trans-African and trans-continental cooperation between HE institutions in East and West Africa and in the EU, as well as local cooperation with external stakeholders.	Local Project Coordinator	*€999,849.00* EU Commission	October 2018 – October 2021
China South-South Cooperation on Climate Change The Climate Change South-South Cooperation Project is an initiative launched by the National Development and Reform Commission (NDRC) of the People's Republic of China to help developing countries address the	Principal Investigator	5.0 million Dollars China Government China Government through the National Development	2015 - 2020

adverse effect of climate change through the provision of renewable energy goods and energy-efficient appliances. The University of Energy and Natural Resources (UENR) through the then Ministry of Energy and Petroleum (MoEP) was selected to benefit from the project with 500 Solar Street Lights, 1000 Inverter Air-Conditioning Units, and 2000 Solar Home Systems to enhance its domestic capacity in combating climate change. UENR and the Ministry of Energy (MoE) are the main distributors and implementors of the project to Off-Grid communities in the northern belt and southern belt of the country respectively.		and Reform Commission of the People's Republic of China	
World Bank Centre of Excellence for Development Impact: Regional Center for Energy and Environmental Sustainability This was in response to the World Bank's call for proposals for African Centres of Excellence (ACE), the University of Energy and Natural Resources proposed the establishment of the Regional Centre for Energy and Environmental Sustainability (RCEES). The proposal was accepted. The Centre currently serves as an energy and environmental sustainability hub and consulting facility in the Africa Sub-Region for knowledge generation in sustainable energy technologies. The main objectives of the ACE Project are to; • Provide international quality post-graduate education to regional and national students focused on a	Deputy Project Leader	$ 6.4 million US Dollars World Bank World Bank	2019– 2025

specific regional development challenge. • Enhance the impact of the ACE on development through private and public sector partnerships. This will also include short term training to professionals already working, internship for students, contract research, data collection, policy advice and research • Deliver research in response to development challenges, including through partnerships with private and public partners. • Improve Governance and management of the ACE to become an institution of excellence. • Strengthen regional and international academic partnerships to raise the quality of education at partner institutions and network partners and to raise the ACE's capacity to manage these partnerships. Results will be achieved through regional students and revenue generated.			
Moving IMPACT: Integrated Means to Power Agriculture, Cooking and Transportation. This project will explore how mini-grids with EV charging infrastructure for small vehicles can be integrated into agricultural areas and support various community needs. It will develop geographical models to identify optimal locations for these mini-grids and evaluate how different technologies and applications can be combined.	Project co-lead (international)	UKRI – UK Research and Innovation Grant amount of £3,556,573	Ongoing, 2025 - 2027

Gendered Design in STEAM (GDS) in Lower and Middle-income Countries (LMIC) A sub-award from Carleton University, Canada on Gendered Design in STEAM (GDS) in Lower and Middle-income Countries (LMIC). The overall objective of the GDS program is to build capacity for research, design, and dissemination of gendered innovations in Science, Technology, Engineering, the Arts, and Mathematics (STEAM), addressing challenges predominantly faced by women in LMICs. RCEES Work Package under the program is to develop an Energy access strategy for disadvantaged communities in Ghana" period starting from September 1, 2020, and ending on April 30, 2022. The project has offered two scholarships; one to a PhD student and another to an MSc Student.	Principal Investigator	Carleton University, Carleton International 511 Tory Building 1125 Colonel by Drive Ottawa, ON, K1S 5B6 Canada. Grant Amount: 15,000 Dollars.	Sept. 2020 - April, 2022
Market Entry into Renewable Energy (RE) and Energy Efficiency (EE) for the Productive Sector: A partnership between The Energy Service Centre of the Association of Ghana Industries (AGI-ESC) and RCEES-UENR to provide hands-on-training to commercial and industrial electricity consumers and service providers in renewable energy (RE) and energy efficiency (EE) under the auspices of the GIZ Market Entry into Renewable Energy (RE) and Energy Efficiency (EE) for the Productive Sector in Ghana project. The duration of this partnership shall be 14 months.	Project Leader at UENR	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Sept 2020 to April 2022
Technical Training on Design, Installation, and Maintenance of Off-grid and Grid Connected Solar PV Systems.	Project Leader	Ghana Energy Commission. 73,200.00 GHS.	5th February to 2nd March, 2028

A contract by the Ghana Energy Commission to train PV installers on the design and installation of photovoltaic (PV) systems, with a focus on both grid and off-grid solar electric systems. This training also provided effective use of energy modelling softwares such as HOMER and RETscreen for easy technical design and financial engineering of renewable energy technologies. The goal of this training is to create unique and specialized practical concepts needed to work on all PV systems, including system components, system sizing, site analysis, PV module criteria, mounting solutions, over-current protection, grounding, safety, and commissioning			
ECOWAS Centre for Renewable Energy and Energy Efficiency (**ECREEE**) Certification for UENR to participate in the Regional Certification Programme for Solar PV Installers	Project Leader at UENR	ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)	28th November 2017 to Date

8. SELECTED SERVICE TO THE INTERNATIONAL COMMUNITY

i. Director, Regional Center for Energy and Environmental Sustainability, UENR, Ghana – 2025 - Present
ii. Head, Renewable Energy Engineering Department, University of Energy and Natural Resources (UENR), Ghana 2024 - Present
iii. Dean, School of Energy, University of Energy and Natural Resources, (UENR), Ghana 2022 - 2024
iv. Deputy Director, Regional Center for Energy and Environmental Sustainability, UENR, Ghana – 2019 - 2025
v. Dean of Students Affairs, University of Energy and Natural Resources (UENR) 2017 –2019
vi. Acting Head, Mechanical and Manufacturing Engineering Department, University of Energy and Natural Resources (UENR) 2015–2017
vii. External Examiner: Pan African University Institute of Water and Energy. Master of Science in Energy Engineering/Energy Policy, 2018
viii. Guest Lecturer: Université Abdou Moumouni, Niger. WASCAL Master Research Program-Climate Change and Energy, 2017
ix. Invited Seminar on Demand Response at the University of South Africa (UNISA), 2011

x. Examiner of MSc Renewable Energy Thesis, Murdoch University since September 2011
xi. External Examiner of the MTech degree in Mechanical Engineering at the University of South Africa (UNISA)
xii. Examiner of PhD thesis in Mechanical Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Ghana.

9. NOMINATIONS AND AWARDS

i. Ghana Energy Awards (2025) – Led RCEES to win the Energy Institution of the Year (RCEES) Award.
ii. Ghana Energy Awards (2025) – Nominated for the Energy Signature Award
iii. Ghana Energy Awards (2025) – Nominated for the Chief Green Trailblazer Award
iv. New Zealand National Energy Research Institute (NERI) Energy Incentive Scholarship for 2007
v. Advanced Energy and Material Systems Lab. AEMSLab System Approach to Energy Engineering PhD scholarship (2007)
vi. University of Canterbury One-Year International PhD tuition fee Scholarship (for 2006)

10. LIST OF PUBLICATIONS

1. Avordeh, T. K., **Gyamfi S.,** Peprah F. (2026) Hybrid PV-hydrogen systems in Africa: assessing pathways for decentralized energy access, equity, and regional integration. Energy Conversion and Management: X 30 (2026) 101892. https://doi.org/10.1016/j.ecmx.2026.101892
2. Tabiri E. **Gyamfi S.,** Aboagye B., Obeng M. (2026) Techno-economic feasibility of alternative energy sources for community water supply in Ghana. Cleaner Water 6 (2026) 100275. https://doi.org/10.1016/j.clwat.2026.100275
3. Kyere-Duah D., **Gyamfi S.,** Peprah F., Gyabaah J. A. (2026) The Energy Transition: Technical and Economic Perspectives from Public Institutions in Ghana. *Energies* **2026**, *19*, 4271. https://doi.org/10.3390/en19184271.
4. **Gyamfi S**., Sekyere C. (2026). Background on Ghana's Renewable Energy Sector. In Empowering Ghana's Engineering Future: A Model for Professional Education in Renewable Energy—and beyond.
5. **Gyamfi, S**., Sekyere, C., Quansah, D. A., & Romero, O. R. (2026). Analysing the Renewable Energy Education Needs in Ghana. In Empowering Ghana's Engineering Future: A Model for Professional Education in Renewable Energy—and beyond.

6. Lahai U. M., Ofosu E.A., **Gyamfi S**. (2025)Comparative Analysis of Selected Improved Biomass Cookstoves' Temperature Profiles Using the Testo 310 Flue Gas Analyzer. New Energy Exploitation and Application 2025-07-30, DOI: 10.54963/neea. v4i2.1233

7. Bakarr S., Diawuo A. F., Gyamfi S., Antwi E. O. (2025) Assessing the energy transition pathways: Achieving net zero goals in Sierra Leone by 2050. Energy Strategy Reviews 62 (2025) 101965. https://doi.org/10.1016/j.esr.2025.101965

8. Nyasapoh, M., **Gyamfi, S**., Debrah, S. K., Gabbar, H., Derkyi, N., Nassar, Y., ... & El-Khozondar, H. (2025). Navigating renewable energy transition challenges for a sustainable energy future in Ghana. Solar energy and sustainable development Journal, 14(1), 237-257.

9. **Gyamfi, S**., Peprah, F., Kwame, A., & Aboagye, B. (2025). Electricity prosumption adoption: what to know and what you can do. In The Intersection of Blockchain and Energy Trading (pp. 193-220). Elsevier. https://doi.org/10.1016/B978-0-443-23627-3.00009-0

10. Effah E., **Gyamfi S**., Anabadongo M. A., Diawuo F. A. (2025) Post-technical assessment and field manual for solar home systems in island communities: The case of Ghana. Solar Compass 14 (2025) 100107. https://doi.org/10.1016/j.solcom.2025.100107

11. **Gyamfi, S.,** Peprah, F., Kwame, A., & Aboagye, B. (2025). Electricity prosumption adoption: what to know and what you can do. In The Intersection of Blockchain and Energy Trading (pp. 193-220). Elsevier. https://doi.org/10.1016/B978-0-443-23627-3.00009-0

12. Amoah Nyasapoh M., **Gyamfi S.,** Debrah S. K., Gabbar H. A., & Agyemang Derkyi, N. S. (2024). Ghana's Path to a Sustainable Energy Future: Assessing Renewable (Solar and Wind) Energy Penetration in the Generation Mix.

13. Iweh C.D., **Gyamfi S**., Effah-Donyina E., Tanyi E. (2024). Analysis of contingency scenarios towards a suitable transmission pathway in the southern interconnected grid (SIG) of Cameroon. e-Prime - Advances in Electrical Engineering, Electronics and Energy 7 (2024) 100486. https://doi.org/10.1016/j.prime.2024.100486

14. Asante K., **Gyamfi S**., Amo-Boateng M., Peprah F. (2023) Techno-economic analysis of solar PV electricity generation at the University of Environment and Sustainable Development in Ghana. Energy Reports 11(2024) 659 – 673 June 2024, Pages 659-673.https://doi.org/10.1016/j.egyr.2023.12.028

15. Nyasapoh M. A., **Gyamfi S.,** Debrah S. K., Gaber A. H., Derkyi N. A. A (2023) Evaluating the Effectiveness of Clean Energy Technologies (Renewables and Nuclear) and External Support for Climate Change Mitigation in Ghana. 2023 IEEE 11th International Conference on Smart Energy Grid Engineering

16. Ahialey K. E., Kabo–Bah, T. A., **Gyamfi S.** (2023) Impacts of LULC and climate change on hydropower generation and development: A systematic review. Heliyon 9 (2023) e21247. https://doi.org/10.1016/j.heliyon.2023.e21247
17. Abdulai D., **Gyamfi S**., Diawuo F. A., Acheampong P. (2023**)**Data analytics for prediction of solar PV power generation and system performance: A real case of Bui Solar Generating Station, Ghana. Scientific African. https://doi.org/10.1016/j.sciaf.2023.e01894
18. Ajiboye O. K., Ochiegbu C. V., Ofosu, A. E., **Gyamfi, S**. (2023) A review of hybrid renewable energies optimization: design, methodologies, and criteria. International Journal of Sustainable Energy 2023, VOL. 42, NO. 1, 648–684. https://doi.org/10.1080/14786451.2023.2227294
19. Akpoti, K., Obahoundje, S., Mortey, E. M., Diawuo, F. A., Antwi, E. O., **Gyamfi, S**., ... & Kabo-bah, A. T. (2023). Technological advances in prospecting sites for pumped hydro energy storage. Pumped Hydro Energy Storage for Hybrid Systems, 105-118. https://doi.org/10.1016/B978-0-12-818853-8.00009-1
20. **Gyamfi, S**., Asuamah, E. Y., & Gyabaah, J. A. (2023). Techno-economic challenges of pumped hydro energy storage. In Pumped Hydro Energy Storage for Hybrid Systems (pp. 119-135). Academic Press. https://doi.org/10.1016/B978-0-12-818853-8.00011-XGet rights and content
21. Ajiboye O. K., Ofosu, A. E., **Gyamfi, S.** Oki O. (2023) Hybrid Renewable Energy System Optimization via Slime Mould Algorithm. International Journal of Engineering Trends and Technology. Vol. 71 Issue 6, 83-95, June 2023. https://doi.org/10.14445/22315381/IJETT-V71I6P210
22. **Gyamfi S.,** Aboagye B., Peprah F., Obeng M. (2023) Degradation analysis of polycrystalline silicon modules from different manufacturers under the same climatic conditions. Energy Conversion and Management: X 20 (2023) 100403 https://doi.org/10.1016/j.ecmx.2023.100403
23. Ayuketah I**, Gyamfi S.**, Diawuo F. A., Dagoumas A.S. (2023) Assessment of low-carbon energy transition policies for the energy demand sector of Cameroon. Energy for Sustainable Development 72(2023) 252-264. https://doi.org/10.1016/j.esd.2022.12.014
24. Iweh C.D., **Gyamfi S**., Tanyi E., Effah-Donyina E. (2023) Economic viability and environmental sustainability of a grid-connected solar PV plant in Yaounde – Cameroon using RETScreen expert. Cogent Engineering, 10:1, 2185946. https://doi.org/10.1080/23311916.2023.2185946
25. Peprah F., Aboagye B., Amo-Boateng M., **Gyamfi S**., Effah-Donyina E. (2023) Economic evaluation of solar PV electricity prosumption in Ghana. Solar Compass 5 (2023) 100035. https://doi.org/10.1016/j.solcom.2023.100035
26. Iweh C.D., **Gyamfi S**., Tanyi E., Effah-Donyina E. (2023) Assessment of the optimum location and hosting capacity of distributed solar PV in the Southern

Interconnected Grid (SIG) of Cameroon. International Journal of Sustainable Energy. https://doi.org/10.1080/14786451.2023.2168002

27. Lahai U. M., Ofosu, E. A., **Gyamfi, S**., Diawuo, F. A., Kallon H. A. P. (2022) Technical Considerations for the Design and Selection of Improved Cookstoves: A Review. International Journal of Engineering Trends and Technology, Volume 70 Issue 12, 439-449. https://doi.org/10.14445/22315381/IJETT-V70I12P242
28. Ayuketah Y., **Gyamfi S**., Diawuo F. A., Dagoumas A. S. (2022) Power generation expansion pathways: A policy analysis of the Cameroon power system. Energy Strategy Reviews 44 (2022), 101004. https://doi.org/10.1016/j.esr.2022.101004
29. Peprah F., **Gyamfi S.**, Amo-Boateng M., Buadi E., Obeng M. (2022) Design and construction of smart solar-powered egg incubator based on GSM/IoT. Scientific African, Volume 17. https://doi.org/10.1016/j.sciaf.2022.e01326
30. Avordeh T. K., **Gyamfi S.,** Opoku A. A. (2022) Estimating Residential Electricity Consumption for Appliance Use: A Statistical Model Approach. **IEEE Xplore.** 10.1109/ICECET52533.2021.9698647
31. **Gyamfi, S.,** Diawuo, F. A., Asuamah, E. Y., & Effah, E. (2022)**.** The role of demand-side management in sustainable energy sector development. In Renewable Energy and Sustainability (pp. 325-346). Elsevier. https://doi.org/10.1016/B978-0-323-88668-0.00010-3
32. Asamoah S. S., Gyamfi S., Uba F., Mensah S. G. (2022) Comparative assessment of a stand-alone and a grid-connected hybrid system for a community water supply system: A case study of Nankese community in the Eastern Region of Ghana. Scientific African 17 (2022) https://doi.org/10.1016/j.sciaf.2022.e01331
33. Nyasapoh M. A., Debrah S., K, Twerefou D. K., **Gyamfi S**., Kholi, F. K. (2022) An Overview of Energy Resources and Future Concerns for Ghana's Electricity Generation. Journal of Energy, Volume 2022. https://doi.org/10.1155/2022/1031044
34. Peprah F., **Gyamfi S.,** Amo-Boateng M., Effah-Donyina E. Impact assessment of grid-tied rooftop PV systems on LV distribution network (2022). Scientific African 16 (2022) https://doi.org/10.1016/j.sciaf.2022.e01172
35. Ochiegbu C. V., **Gyamfi S.**, Ofosu E. (2022) Modeling, Simulation and Design of Hydro-Solar Isolated Micro-grid without a Battery Storage System: A Case Study for Aba Business Cluster, Nigeria. International Journal of Engineering Trends and Technology, Volume 70 Issue 2, 125-136, February, 2022. https://ijettjournal.org/archive/ijett-v70i2p215
36. **Gyamfi, S.,** Diawuo, F. A., Asuamah, E. Y., & Effah, E. (2022). The role of demand-side management in sustainable energy sector development. In Renewable Energy and Sustainability (pp. 325-346). Elsevier. https://doi.org/10.1016/B978-0-323-88668-0.00010-3

37. Aboagye, B., **Gyamfi, S.,** Antwi, E. O., Djordjevic, S. (2022) Characterisation of degradation of photovoltaic (PV) module technologies in different climatic zones in Ghana. Sustainable Energy Technologies and Assessments, 52(2022) 102034. https://doi.org/10.1016/j.seta.2022.102034

38. Eliasu A., Derkyi N. S. A., **Gyamfi S.** (2022) Techno-Economic Analysis of Municipal Solid Waste Gasification for Electricity Generation. International Journal of Energy Economics and Policy, 2022, 12(1), 342-348. DOI: https://doi.org/10.32479/ijeep.11894

39. Aboagye B., **Gyamfi, S.,** Antwi E. O., Djordjevic, S. (2022) Investigation into the impacts of design, installation, operation and maintenance issues on performance and degradation of installed solar photovoltaic (PV) systems. Energy for Sustainable Development 2022 (66): 165-176. https://doi.org/10.1016/j.esd.2021.12.003

40. Avordeh T. K., **Gyamfi S.,** Opoku A. A. (2021) The role of demand response in residential electricity load reduction using appliance shifting techniques. International Journal of Energy Sector Management. Emerald Publishing Limited 1750-6220. DOI 10.1108/IJESM-05-2020-00.

41. Aboagye, B., **Gyamfi, S.,** Antwi, E. O., Djordjevic, S. (2021) Degradation analysis of installed solar photovoltaic (PV) modules under outdoor conditions in Ghana. Energy Reports 7 (2021) 6921–6931.https://doi.org/10.1016/j.egyr.2021.10.046

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