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RESEARCH

Interests	Energy Efficiency and Demand Side Management · Integration of Renewables into Power Grids and Application of Artificial Intellige
Areas	Electrical and Electronic Engineering · Control and Systems Engineering · Artificial Intelligence · Energy Engineering and Power Technology · Pollution · Building and Construction

RESEARCH SUMMARY

98	403	10	10	0.80	8%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 98 publications listed below, 2009–2026. Field-weighted impact is the mean over the 62 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 62 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 71

1. Michael Obeng, **Emmanuel Asuming Frimpong**, Bernard Aboagye (2026). Accelerating the energy transition in Sub-Saharan Africa: A stochastic programming framework. *Renewable and Sustainable Energy Transition*. https://doi.org/10.1016/j.rset.2026.100156
2. Kofi Addo Annan, **Emmanuel Assuming Frimpong**, Francis Boafo Effah, Elvis Twumasi, Abdul-Majid Issah Malori, Mark Ampomah Otu (2026). An Improved Electromagnetism-like Algorithm for Gaussian Process Hyperparameter Optimization in Remaining Useful Life Prediction of Electrolytic Capacitors. *Electrical Engineering and Energy (ELENE)*. https://doi.org/10.64470/elene.2026.35
3. Peter Asigri, **Emmanuel Frimpong**, Daniel Opoku, Daniel Kwegyir, Yaw Opoku Mensah Sekyere, Francis Boafo Effah (2026). Combined optimal power flow and profit maximization in the power sector using an enhanced multi-objective grey wolf optimizer. *Journal of Electrical Systems and Information Technology*. https://doi.org/10.1186/s43067-026-00350-0
4. Emelia Agyemang Yeboah, Daniel Kwegyir, Priscilla Oyeladun Ajiboye, Peter Asigri, Daniel Opoku, Kwofie Simeon Edayi, Paula Esi Anamoah Doughan, **Emmanuel Asuming Frimpong** (2026). Development of an IoT-enabled smart plug for intelligent energy monitoring in household appliances. *Journal of Electrical Systems and Information Technology*. https://doi.org/10.1186/s43067-026-00370-w
5. Kofi Addo Annan, Francis Boafo Effah, **Emmanuel Asuming Frimpong** (2026). Development of encoder-multivariate time-series transformer for remaining useful life prediction of IGBTs. *Journal of Electrical Systems and Information Technology*. https://doi.org/10.1186/s43067-026-00368-4
6. Abdul-Majid Issah Malori, **Emmanuel Asuming Frimpong**, Francis Effah Boafo, Elvis Twumasi, Peter Asigri, Bernard Marfo Adjei (2026). End to end prediction of optimal power flow in sustainable power system using physics-informed spatiotemporal graph neural network. *Electrical Engineering and Energy (ELENE)*. https://doi.org/10.64470/elene.2026.33
7. Seth A. Mahu, Flavio Odoi-Yorke, Akwasi Adu-Poku, Richard K. Avuglah, **Emmanuel A. Frimpong**, David A. Quansah, Francis Kemausuor (2026). Overcoming Technical and Operational Barriers in Low-Voltage

Mini-Grids: Two Decades of Research Trends, Progress, and Pathways for Accelerated Rural Electrification (2005–2025). *Energies*. https://doi.org/10.3390/en19040933

8. Abdul-Majid Issah Malori, **Emmanuel Asuming Frimpong**, Francis Boafo Effah, Elvis Twumasi, Peter Asigri, Bernard Marfo Adjei (2026). Warm-starting conventional solver for ACOPF prediction using Modified Seagull Optimization Algorithm and physics-informed spatiotemporal graph neural network. *Electrical Engineering and Energy (ELENE)*. https://doi.org/10.64470/elene.2026.34
9. Sulayman Kujabi, **Emmanuel Asuming Frimpong**, Francis Boafo Effah (2025). ENHANCING ISLANDING DETECTION IN PV-BASED DISTRIBUTED SYSTEMS USING CEEMDAN AND PATTERN RECOGNITION NEURAL NETWORK. *Carpathian Journal of Electrical Engineering*. https://doi.org/10.34302/cjee/lrbt6157
10. Edward Ankapong, Opoku Gyamfi, Victor Agyei, Kwadwo Owusu Boakye, Kofi Sarpong, Eugene Ansah, **Emmanuel Frimpong**, Matt Dodd, Godfred Darko (2025). Ecological and human health risks due to potentially toxic metals in selected water and food crops from soils in major mining areas in Ghana. *Environment Development and Sustainability*. https://doi.org/10.1007/s10668-025-06594-6
11. Sulayman Kujabi, **Emmanuel Asuming Frimpong**, Francis Boafo Effah (2025). Energy-Efficient Islanding Detection Using CEEMDAN and Neural Network Integration in Photovoltaic Distribution System. *International Journal of Energetica*. https://doi.org/10.47238/ijeca.v9i2.240
12. Michael Obeng, **Emmanuel Asuming Frimpong**, Bernard Aboagye (2025). Intra-day probabilistic solar irradiation forecasting using infinite hidden Markov model clustering. *Solar Energy Advances*. https://doi.org/10.1016/j.seja.2025.100123
13. Elvis Twumasi, **Emmanuel Asuming Frimpong**, Nicholas Kwesi Prah, David Boah Gyasi (2024). A novel improvement of particle swarm optimization using an improved velocity update function based on local best murmuration particle. *Journal of Electrical Systems and Information Technology*. https://doi.org/10.1186/s43067-024-00168-8
14. Daniel Kwegyir, Francis Boafo, Daniel Opoku, **Emmanuel Frimpong** (2024). DATA DRIVEN RULE-BASED PEAK SHAVING ALGORITHM FOR SCHEDULING REFRIGERATORS. *Carpathian Journal of Electrical Engineering*. https://doi.org/10.34302/cjee/qseg2220
15. Peter Asigri, **Emmanuel Asuming Frimpong**, Emmanuel Kwaku Anto, Daniel Kwegyir, Francis Boafo Effah (2024). Enhanced Multi-Objective Grey Wolf Optimization using Adaptive Diversity Tuning and Levy Flights. *Carpathian Journal of Electrical Engineering*. https://doi.org/10.34302/cjee/tkyd3692
16. Abdul Yussif Seidu, Elvis Twumasi, **Emmanuel Assuming Frimpong** (2024). Hybrid optimized artificial neural network using Latin hypercube sampling and Bayesian optimization for detection, classification and location of faults in transmission lines. *AIMS Electronics and Electrical Engineering*. https://doi.org/10.3934/electreng.2024024
17. Elvis Twumasi, Ebenezer Archer, Emmanuel O. Addo, **Emmanuel A. Frimpong** (2024). Modification of coot optimization algorithm (COA) with adaptive sigmoid increasing inertia weight for global optimization. *Applied Computing and Intelligence*. https://doi.org/10.3934/aci.2024006
18. Priscilla Oyeladun Ajiboye, Kwame Opuni-Boachie Obour Agyekum, **Emmanuel Asuming Frimpong** (2024). Privacy and security of advanced metering infrastructure (AMI) data and network: a comprehensive review. *Journal of Engineering and Applied Science*. https://doi.org/10.1186/s44147-024-00422-w
19. **Emmanuel Frimpong**, Edward Ankapong, Kwadwo Owusu Boakye, Eugene Ansah, Opoku Gyamfi, Benedict Barnes, Matt Dodd, Godfred Darko (2024). Uptake and in-vitro bioaccessibility of toxic metals in cocoa beans: Human health risks. *Environmental Geochemistry and Health*. https://doi.org/10.1007/s10653-024-02345-0
20. FB Effah, D Kwegyir, **EA Frimpong** (2023). ANN-based electricity theft classification technique for limited data distribution systems. *Jurnal Nasional Teknik Elektro*. https://jnte.ft.unand.ac.id/index.php/jnte/article/view/1072
21. NK Prah II, E Twumasi, **EA Frimpong** (2023). Combined Economic Emission Dispatch in A Grid-Connected Microgrid Using an Improved Mayfly Algorithm. *Journal of Applied Research in Electrical Engineering*. https://jaree.scu.ac.ir/article_18408.html

22. Bright Ayasu, Emmanuel Kwaku Antoh, Elvis Twumasi, **Emmanuel Asuming Frimpong** (2023). Enhanced Adaptive Simulated Based Artificial Gorilla Troop Optimizer for Global Optimisation. *International Journal of Electrical Engineering and Applied Sciences (IJEEAS)*. https://doi.org/10.54554/ijeeas.2023.6.02.008

23. Samuel Asamoah Sakyi, Stephen Opoku, Ebenezer Senu, Emmanuel Ekow Korsah, Alfred Effah, Bright Takyi Baidoo, Eugene Ansah Arele, **Emmanuel Frimpong**, Emmanuel Naturinda, Kini Evans Kodzo, Anthony Amenuvor, Afia Agyapomaa Kwayie, Lydia Oppong Bannor, Ransford Osei Ampofo, Brefo Aaron Marfo, Raphael Osei Mensah-Bonsu (2023). Factors associated with knowledge and hypoglycemia experience among patients with diabetes mellitus in Ghana: A cross-sectional study. *Public Health Challenges*. https://doi.org/10.1002/puh2.130

24. Samuel A. Sakyi, Phyllis Tawiah, Ebenezer Senu, Ransford O. Ampofo, Anthony K. Enimil, Benjamin Amoani, Enoch O. Anto, Stephen Opoku, Alfred Effah, Elizabeth Abban, Joseph Frimpong, **Emmaunel Frimpong**, Lydia Oppong Bannor, Afia A. Kwayie, Emmanuel Naturinda, Eugene A. Ansah, Bright T. Baidoo, Kini E. Kodzo, Nana K. Ayisi-Boateng (2023). Frailty syndrome and associated factors among patients with hypertension: A cross-sectional study in Kumasi, Ghana. *Health Science Reports*. https://doi.org/10.1002/hsr2.1664

25. E Twumasi, **EA Frimpong** (2023). Modified mountain gazelle optimizer based on logistic chaotic mapping and truncation selection. *Int. Res. J. Eng. Technol*. https://www.academia.edu/download/104179858/IRJET_V10I5323.pdf

26. E Twumasi, **EA Frimpong** (2023). OPTIMAL PID CONTROLLER BASED ON AN IMPROVED SPARROW SEARCH ALGORITHM FOR MULTI-AREA FREQUENCY CONTROL. *Carpathian Journal of Electrical Engineering*. https://openurl.ebsco.com/contentitem/gcd:174966372?sid=ebsco:plink:crawler-gcd&id=ebsco:gcd:174966372&crl=c&jrnl=18437583

27. FB Effah, **EA Frimpong** (2023). OPTIMIZING DUTY RATIOS IN A GRID-INTERACTIVE INVERTER: A FIVE-LEVEL, THREE-LEG, THREE-PHASE CASCADED HBRIDGE APPROACH EMPLOYING MPCC WITH AN EXPLICIT INTEGRATION ALGORITHM. *Carpathian Journal of Electrical Engineering*. https://search.proquest.com/openview/f472f3f1f803f1536bd339ef7fcca298/1?pq-origsite=gscholar&cbl=2048965

28. E Twumasi, **EA Frimpong** (2023). Optimal integration of multiple shunt reactive compensators in radial distribution systems for loss reduction using modified mountain gazelle optimizer (MMGO). *International Journal of Electrical Engineering and Applied Sciences (IJEEAS)*. https://ijeeas.utem.edu.my/ijeeas/article/view/6157

29. E Twumasi, **EA Frimpong** (2023). Optimal sizing and placement of series capacitors in distribution networks using modified elephant herding optimization algorithm. *Journal of Applied Research in Electrical Engineering*. https://jaree.scu.ac.ir/article_18664.html

30. Abdul-Fatawu Seini Yussif, Elvis Twumasi, **Emmanuel Asuming Frimpong** (2023). Performance Enhancement of Elephant Herding Optimization Algorithm Using Modified Update Operators. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v12n2.1124.2023

31. Francis Boafo Effah, Daniel Kwegyir, Daniel Opoku, Peter Asigri, **Emmanuel Asuming Frimpong** (2023). Short-Term EV Charging Demand Forecast with Feedforward Artificial Neural Network. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v12n2.1094.2023

32. **EA Frimpong** (2023). The influence of voltage regulation devices based distributed generation in distribution networks. *Electrical and Electronic Engineering*. https://scholar.google.com/scholar?cluster=9004240826458774810&hl=en&oi=scholarr

33. **EA Frimpong**, E Twumasi (2023). Transformer inter-turn fault diagnosis using continuous wavelet transforms and convolutional neural networks. *ADRRI Journal of Engineering and Technology*. https://scholar.google.com/scholar?cluster=14544413687351139326&hl=en&oi=scholarr

34. E TWUMASI, **EA FRIMPONG** (2022). ENHANCEMENT OF THE PREDICTION ACCURACY OF GREY SYSTEM MODEL USING A PARTICLE SWARM OPTIMIZED INITIAL CONDITION. *Carpathian Journal of Electrical Engineering*. https://www.researchgate.net/profile/Justice-Ohene-Akoto/publication/370839846_ENHANCEMENT_OF_THE_PREDICTION_ACCURACY_OF_GREY_SYSTEM_MODEL_USING_A_PARTI

CLE_SWARM_OPTIMIZED_INITIAL_CONDITION/links/6465811b9533894cac773394/ENHANCEMENT-OF-THE-PREDICTION-ACCURACY-OF-GREY-SYSTEM-MODEL-USING-A-PARTICLE-SWARM-OPTIMIZED-INITIAL-CONDITION.pdf

35. **EA Frimpong**, FB Effah (2022). Exposing Students to Engineering in Society. *ADRRI Journal of Engineering and Technology*. https://ejournal2.undip.ac.id/index.php/ijee/article/view/10908
36. EAFRO E. A. Adjei, **EA Frimpong** (2021). A Comprehensive Approach to Domestic Waste Management. *Journal of Science and Technology (Ghana)*. https://www.ajol.info/index.php/just/article/view/218072
37. Gideon Adom-Bamfi, **Emmanuel Asuming Frimpong** (2021). A Robust Scheme for Coherency Detection in Power Systems. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v10n2.908.2021
38. **Emmanuel Asuming Frimpong**, Francis Boafo Effah (2021). A framework to guide industrial trips in engineering training institutions. *International Journal of Electrical Engineering Education*. https://doi.org/10.1177/00207209211013454
39. **EA Frimpong** (2021). Detection of Transformer Inter-Turn Faults using Continuous Wavelet Transform and Convolutional Neural Network. *ADRRI Journal of Engineering and Technology*. https://scholar.google.com/scholar?cluster=3739480658291544894&hl=en&oi=scholarr
40. Elvis Twumasi, **Emmanuel Asuming Frimpong**, Daniel Kwegyir, Denis Folitse (2021). Improvement of Grey System Model using Particle Swarm Optimization. *Journal of Electrical Systems and Information Technology*. https://doi.org/10.1186/s43067-021-00036-9
41. D Kwegyir, **EA Frimpong** (2021). Modified local leader phase spider monkey optimization algorithm. *vol*. https://www.academia.edu/download/101788839/Manuscript_Number_ADRRIJET_21_1180.pdf
42. D Kwegyir, **EA Frimpong** (2021). Optimization of feedforward neural network training using modified local leader phase spider monkey optimization. *no. July*. https://www.academia.edu/download/72357142/Optimization_of_Feedforward_Neural_Network_Training_using_Modified_Leader_Phase_Spider_Monkey_Optimizatioin.pdf
43. **Emmanuel Frimpong**, Elvis Twumasi (2021). Prediction of unregulated energy usage in office buildings. *International Journal of Building Pathology and Adaptation*. https://doi.org/10.1108/ijbpa-02-2021-0016
44. **Emmanuel Frimpong**, Joana Kyei-Dompim, Evans Frimpong Kyei, Evans Oduro, Richard Adongo Afaya, Collins Kwadwo Ahoto (2020). Final Year Nursing Students' Knowledge and Attitudes regarding Children's Pain. *Pain Research and Management*. https://doi.org/10.1155/2020/7283473
45. **EA Frimpong** (2020). Impact of Photovoltaic System Integration on Low Voltage Network. *International Journal of Emerging Technology and Advanced Engineering*. https://www.academia.edu/download/91119726/IJETAE_1020_16.pdf
46. Collins Afriyie Appiah, Edward Opoku Afriyie, Frank Ekow Atta Hayford, **Emmanuel Frimpong** (2020). Prevalence and lifestyle-associated risk factors of metabolic syndrome among commercial motor vehicle drivers in a metropolitan city in Ghana. *Pan African Medical Journal*. https://doi.org/10.11604/pamj.2020.36.136.16861
47. **EA Frimpong**, PY Okyere (2020). WAVELET ANALYSIS AND NEURAL NETWORK TECHNIQUE FOR PREDICTING TRANSIENT STABILITY STATUS. *Carpathian Journal of Electrical Engineering*. https://openurl.ebsco.com/contentitem/gcd:150274329?sid=ebsco:plink:crawler-gcd&id=ebsco:gcd:150274329&crl=c&jrnl=18437583
48. **EA Frimpong**, E Twumasi (2019). AWARENESS OF DEMAND-SIDE MANAGEMENT PRACTICES AMONG STAFF OF AN EDUCATIONAL INSTITUTION. *Carpathian Journal of Electrical Engineering*. https://search.proquest.com/openview/568be0b09f8ed38d52570a38bc7bf13a/1?pq-origsite=gscholar&cbl=2048965
49. **Emmanuel Asuming Frimpong**, Philip Okyere, Johnson Asumadu (2019). Average Voltage and Multilayer Perceptron Neural Network Based Scheme to Predict Transient Stability Status. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v8n2.668.2019
50. **EA Frimpong** (2019). Optimization algorithms for solving combined economic emission dispatch: A review. *Proceedings of the World Congress on Engineering and Computer Science*. https://

www.academia.edu/download/93570291/WCECS2019_pp210-215.pdf

51. Elvis Twumasi, **Emmanuel Asuming Frimpong**, Leslie Novihoho (2019). Potential for Energy Savings in Educational Institutions in Ghana. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v8n3.661.2019
52. E Twumasi, **EA Frimpong** (2018). A scheme for optimal placement of light sensors for illumination control. *International Research Journal of Engineering and Technology (IRJET)*. https://www.academia.edu/download/57244575/IRJET-V5I7309.pdf
53. Wemogar Elijah Borweh, **Emmanuel Asuming Frimpong**, Lena Dzifa Mensah (2018). Design of an Optimal off-grid Hybrid Energy System for a Rural Community. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v7n3.558.2018
54. **Emmanuel Asuming FRIMPONG**, Elvis TWUMASI (2018). ELECTRICITY CONSERVATION AND SAFETY AWARENESS AMONG SENIOR HIGH SCHOOL STUDENTS. *DOAJ (DOAJ: Directory of Open Access Journals)*.
55. **Emmanuel Asuming Frimpong**, Elvis Twumasi, Francis Kemausuor, Divine Odame Appiah, Philip Yaw Okyere (2018). ENERGY EFFICIENCY AWARENESS AND PREPAREDNESS AMONG STUDENTS.
56. **Emmanuel Asuming Frimpong**, Philip Yaw Okyere, Johnson Asumadu (2018). On-line determination of transient stability status using multilayer perceptron neural network. *Journal of Electrical Engineering*. https://doi.org/10.1515/jee-2018-0008
57. **Emmanuel Asuming FRIMPONG**, Philip Yaw OKYERE, Johnson ASUMADU (2018). REAL-TIME TRANSIENT STABILITY STATUS PREDICTION SCHEME AND COMPARATIVE ANALYSIS OF THE PERFORMANCE OF SVM, MLPNN AND RBFNN. *DOAJ (DOAJ: Directory of Open Access Journals)*.
58. **EA Frimpong**, PY Okyere (2018). Walsh-Hadamard Transform and Support Vector Machine Based Rotor Angle Stability Status Prediction. *International Research Journal for Engineering and Technology*.
59. **Emmanuel Asuming Frimpong**, Philip Yaw Okyere, Johnson Asumadu (2018). Wavelet Analysis and Radial Basis Function Neural Network Based Stability Status Prediction Scheme. *Jurnal Nasional Teknik Elektro*. https://doi.org/10.25077/jnte.v7n3.559.2018
60. **EA Frimpong**, PY Okyere (2016). Assessment of Energy Wastage in Street lighting. *Journal of Multidisciplinary Engineering Science Studies*. http://www.jmess.org/wp-content/uploads/2016/07/JMESSP13420139.pdf
61. **EA Frimpong**, PY Okyere (2016). Real time prediction of coherent generator groups. *Journal of Electrical Engineering*. http://jee.ro/index.php/jee/article/view/WD1448649431W5658a2d7c8a7d
62. **E Frimpong** (2015). Assessing the efficiency of soya bean marketing in the Ejura-Sekyedumasi and Nkoranza south districts of Ghana. *British Journal of Marketing Studies*. https://scholar.google.com/scholar?cluster=18191203222056109933&hl=en&oi=scholarr
63. **EA Frimpong**, PY Okyere (2015). Impact Assessment of Increasing Solar PV Penetrations on Voltage and Total Harmonic Distortion of a Distribution Network. *Journal of Multidisciplinary Engineering Science Studies*. http://jmess.org/wp-content/uploads/2015/12/JMESSP13420027.pdf
64. **EA Frimpong**, PY Okyere (2015). NEURAL NETWORK AND SPEED DEVIATION BASED GENERATOR OUT-OF-STEP PREDICTION. *Journal of Electrical Engineering*. http://www.jee.upt.ro/index.php/jee/article/view/WB1384950860W528cac4c5d704
65. **EA Frimpong**, PY Okyere (2015). Neural network and speed deviation based generator out-of-step prediction scheme. *Journal of Electrical Engineering*. https://www.researchgate.net/profile/Philip-Okyere/publication/279517059_Neural_Network_and_Speed_Deviation_Based_Generator_Out-of-Step_Prediction_Scheme/links/55952c3408ae793d1379cedc/Neural-Network-and-Speed-Deviation-Based-Generator-Out-of-Step-Prediction-Scheme.pdf
66. PY Okyere, **EA Frimpong** (2015). SPEED DEVIATION AND MULTILAYER PERCEPTRON NEURAL NETWORK BASED TRANSIENT STABILITY STATUS PREDICTION SCHEME. *Journal of Electrical Engineering*. http://new.jee.ro/index.php/jee/article/view/WP1385456855W529464d767fda
67. **E Frimpong** (2010). A review of adaptive autoreclosure techniques. *Indian Journal of Computer Science*....

https://www.academia.edu/download/93541761/IJCSE10-01-03-34.pdf

68. **EA Frimpong**, PY Okyere (2010). Forecasting Daily Peak Load of Ghana using Radial Basis Function Neural Network and Wavelet Transform. *Journal of Electrical Engineering*. http://jee.ro/index.php/jee/article/download/WV1247491223W4a5b3497e631f/312

69. **EA Frimpong**, PY Okyere (2010). MONTHLY ENERGY CONSUMPTION FORECASTING USING WAVELET ANALYSIS AND RADIAL BASIS FUNTION NEURAL NETWORK. *Journal of Science and Technology*. https://journal.knust.edu.gh/index.php/just/article/view/528

70. **E.A Frimpong**, P.Y Okyere (2010). Monthly Energy Consumption Forecasting Using Wavelet Analysis and Radial Basis Function Neural Network. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v30i2.60541

71. **EA Frimpong**, PY Okyere (2009). Adaptive Single-Pole Autoreclosure scheme based on Standard Deviation and Wave Energy. *journal of Electrical Engineering*. http://www.jee.upt.ro/index.php/jee/article/view/WL1242646508W4a1147ecb69ed

Conference papers 26

1. E Twumasi, **EA Frimpong** (2025). Distribution Network Reconfiguration Using a Modified Artificial Rabbit Optimization Algorithm. *2025 IEEE PES/IAS PowerAfrica Conference*. https://researchportal.bath.ac.uk/en/publications/distribution-network-reconfiguration-using-a-modified-artificial-/

2. E Twumasi, **EA Frimpong** (2025). Optimal Reactive Power Dispatch for Loss Reduction in Power Systems using Improved Walrus Optimizer (IWO). *2025 IEEE PES/IAS PowerAfrica Conference*. https://researchportal.bath.ac.uk/en/publications/optimal-reactive-power-dispatch-for-loss-reduction-in-power-syste/

3. Edmund Kwafo Adjei-Saforo, **Emmanuel Asuming Frimpong**, Francis Boafo Effah, Misbawu Adam, Shahrouz Ebrahimpanah, Su Hongsheng (2023). Duty Ratio Optimization for a Multi-Level Polyphase Cascaded H-Bridge Grid-Interactive Inverter Using Model Predictive Current Control Based on Explicit Integration Algorithm. https://doi.org/10.1109/africon55910.2023.10293570

4. Edmund Kwafo Adjei-Saforo, **Emmanuel Asuming Frimpong**, Francis Boafo Effah, Misbawu Adam, Shahrouz Ebrahimpanah, Su Hongsheng (2022). Model Predictive Current Control Method with Enhanced Performance for a Three-Phase Five-Level Cascaded H-Bridge Inverter Connected to Grid. *2022 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica53997.2022.9905258

5. Joe Oteng-Adjei, Justice Ohene-Akoto, **Emmanuel Asuming Frimpong**, Abdul-Majid Issah Malori, Elvis Twumasi, Jonathan Ennin (2021). Customer Damage Function Evaluation Using Indirect Analytical Method: The Case of Ghana. *2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)*. https://doi.org/10.1109/icacite51222.2021.9404756

6. Isaac Kofi Otchere, Desmond Okwabi Ampofo, Kwabena Amoako Kyeremeh, James Amankwah Adu, **Emmanuel Asuming Frimpong** (2021). Policy Review of Voltage Stability with High Penetration of Distributed Generation. https://doi.org/10.1109/isie45552.2021.9576408

7. **Emmanuel Asuming Frimpong**, Elvis Twumasi (2020). A Model for Predicting Unregulated Energy Usage. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219844

8. Isaac Kofi Otchere, Kwabena Amoako Kyeremeh, **Emmanuel Asuming Frimpong** (2020). Adaptive PI-GA Based Technique for Automatic Generation Control with Renewable Energy Integration. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219960

9. Amankwah Aubrey Effah, Cudjoe Charles Ackatiah, Frederick Nana Oppong, **Emmanuel Asuming Frimpong** (2020). Biometric Class Attendance Register. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219846

10. Desmond Nii Ashitey Hammond, **Emmanuel Asuming Frimpong**, Joel Yeboah Ohene (2020). Detection of Inter-Turn Faults in Transformers Using Continuous Wavelet Transform and Convolutional Neural Network. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219917

11. Elvis Twumasi, **Emmanuel Asuming Frimpong**, Daniel Kwegire, Dennis Folits (2020). Improvement of Grey System Model Using Particle Swarm Optimization. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/

10.1109/powerafrica49420.2020.9219959

12. Stephen Anokye, Elvis Twumasi, **Emmanuel Asuming Frimpong**, Bernice Monney Agyirakwa, Rhoda Etornam Kudor (2020). Intelligent Energy Management Device for Energy Conservation in Air conditioners. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219800
13. **Emmanuel Asuming Frimpong**, Tetteh Bright, Boahene Kojo, Thomas Adawari Michael (2020). Inter-Turn Fault Detection Using Wavelet Analysis and Adaptive Neuro- Fuzzy Inference System. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219856
14. Isaac Kofi Otchere, Bernard Arhin, Kwabena Amoako Kyeremeh, **Emmanuel Asuming Frimpong** (2020). Investigation of Voltage Stability for Transmission Network with High Penetration of Wind Energy Sources. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219937
15. Isaac Kofi Otchere, Kwabena Amoako Kyeremeh, Nana Twum Duah, **Emmanuel Asuming Frimpong** (2020). Policy Review of Impact of Distributed Generation on Power Quality. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219986
16. Gideon Dadzie, **Emmanuel Asuming Frimpong**, Caleb Myers Allotey, Eunice Lois Boateng (2020). Transformer Incipient Fault Detection Technique Based on Neural Network. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219948
17. **Emmanuel Asuming Frimpong**, Philip Yaw Okyere, Johnson Akom Asumadu (2020). Wavelet Analysis and Neural Network Scheme for Predicting Transient Stability Status. *2020 IEEE PES/IAS PowerAfrica*. https://doi.org/10.1109/powerafrica49420.2020.9219977
18. John Kobbina Arthur, **Emmanuel Asuming Frimpong**, Joe Oteng Adjei (2019). A Literature Survey of Recent Advances in the Solution of Combined Economic Emission Dispatch Problem. https://doi.org/10.1109/africon46755.2019.9133761
19. Isaac Kofi Otchere, Desmond Okwabi Ampofo, **Emmanuel Asuming Frimpong** (2017). A 2ndorder LPF wavelet based control scheme for shunt active power filter. https://doi.org/10.1109/powerafrica.2017.7991267
20. Isaac Kofi Otchere, Desmond Okwabi Ampofo, **Emmanuel Asuming Frimpong** (2017). Adaptive discrete wavelet transform based technique for load frequency control. https://doi.org/10.1109/powerafrica.2017.7991292
21. **Emmanuel Frimpong** (2017). An investigation into the optimal sizing, placement and operation of voltage regulation devices in distribution networks having distributed generation. *2nd Engineering, Science, Technology and Environment (ESTE) Conference*.
22. Desmond Okwabi Ampofo, Isaac Kofi Otchere, **Emmanuel Asuming Frimpong** (2017). An investigative study on penetration limits of distributed generation on distribution networks. https://doi.org/10.1109/powerafrica.2017.7991289
23. Elvis Twumasi, **Emmanuel Asuming Frimpong**, Francis Kemausuor, Divine Odame Appiah, Philip Yaw Okyere (2017). Energy efficiency awareness and preparedness among students. https://doi.org/10.1109/powerafrica.2017.7991268
24. **Emmanuel Asuming Frimpong**, Philip Yaw Okyere, Johnson Asumadu (2017). On-line determination of transient stability status using MLPNN. https://doi.org/10.1109/powerafrica.2017.7991194
25. **Emmanuel Asuming Frimpong**, Philip Yaw Okyere, Johnson Asumadu (2017). Prediction of transient stability status using Walsh-Hadamard transform and support vector machine. https://doi.org/10.1109/powerafrica.2017.7991241
26. **Emmanuel A. Frimpong**, Philip Y. Okyere, Johnson A. Asumadu (2013). Generator out-of-step prediction using wavelet analysis. https://doi.org/10.1109/pedg.2013.6785647

Reports 1

1. **EA Frimpong** (2020). Walsh hadamard transform and support vector machine based rotor angle stability status prediction [articol]. *Timișoara: Editura Politehnica*. https://dspace.upt.ro/xmlui/handle/123456789/6531