# Gaddafi Abdul-Salaam

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## RESEARCH

| | |
|---|---|
| Interests | Wireless Sensor Networks · computer networks and pervasive computing |
| Areas | Computer Networks and Communications · Artificial Intelligence · Information Systems · Biomedical Engineering · Computer Vision and Pattern Recognition · Electrical and Electronic Engineering |

## RESEARCH SUMMARY

| 40 | 1,215 | 13 | 16 | 4.28 | 33% |
|---|---|---|---|---|---|
| Publications | Citations | h-index | i10-index | Field-weighted impact | World top 10% |

Counted from the 40 publications listed below, 2015–2026. Field-weighted impact is the mean over the 30 works scored for it; 1.00 is the world average for works of the same field, type and year. 10 of the 30 papers scored for it are among the world's most cited tenth for their field, type and year.

## POSITIONS

**SENIOR LECTURER**
COMPUTER SCIENCE, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

## EDUCATION AND QUALIFICATIONS

**DOCTOR OF PHILOSOPHY**
COMPUTING, University of Technology Malaysia, Johor Bahru, Malaysia

## PUBLICATIONS

### Journal articles 34

1. Richard Adusei, **Gaddafi Abdul-Salaam** (2026). A Review of Fine-Grained Visual Categorization with Deep Learning. *Journal on artificial intelligence*. https://doi.org/10.32604/jai.2026.085269
2. Henry Techie Menson, Michael Asante, Yaw Marfo Missah, **Gaddafi Abdul Salaam**, Stephen Opoku Oppong (2026). A Systematic Review of Artificial Intelligence and Deep Learning Approaches for Cocoa Pod Disease Detection. *Journal of Computer Science*. https://doi.org/10.3844/jcssp.2026.2540.2572
3. **G Abdul-Salaam**, YM Missah (2026). A Two-stage Image Encryption Framework using Ensemble Learning-Driven Key Generation and Spiral Ripple Shuffling. *Journal of Advanced Research Design*. https://akademiabaru.com/submit/index.php/ard/article/view/6623
4. Henry Techie-Menson, Michael Asante, Yaw Marfo Missah, **Gaddafi Abdul-Salaam**, Stephen Opoku Oppong (2026). Enhanced convolutional block attention module with Learnable Gated Fusion (LGF-CBAM) for cocoa pod disease identification. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0348147
5. Issah Zabsonre Alhassan, **Gaddafi Abdul-Salaam**, Michael Asante, Yaw Marfo Missah, Alimatu Sadia Shirazu (2026). Ensemble-Guided Pseudorandom Number Generation with Residue Number System Transformation. *Journal of Cyber Security*. https://doi.org/10.32604/jcs.2026.085303
6. **G Abdul-Salaam**, YM Missah (2025). An Overview and Comparative Study of Traditional, Chaos-Based and Machine Learning Approaches in Pseudorandom Number Generation. *Journal of Cyber Security*.

https://www.researchgate.net/profile/Issah-Alhassan-5/publication/393471781_An_Overview_and_Comparative_Study_of_Traditional_Chaos-Based_and_Machine_Learning_Approaches_in_Pseudorandom_Number_Generation/links/686c3b09e4632b045dca712d/An-Overview-and-Comparative-Study-of-Traditional-Chaos-Based-and-Machine-Learning-Approaches-in-Pseudorandom-Number-Generation.pdf

7. Maxwell Dorgbefu Jnr, Yaw Marfo Missah, Najim Ussiph, **Gaddafi Abdul-Salaam**, Oliver Kornyo, Joseph Mawulorm Mensah (2025). Hybrid framework of differential privacy and secure multi-party computation for privacy-preserving entity resolution. *Computers & Security*. https://doi.org/10.1016/j.cose.2025.104603
8. Seiba Alhassan, **Dr. Gaddafi Abdul-Salaam**, Asante Micheal, Yaw Marfo Missah, Dr. Ernest D. Ganaa, Alimatu Sadia Shirazu (2024). CFS-AE: Correlation-based Feature Selection and Autoencoder for Improved Intrusion Detection System Performance. *Journal of Internet Services and Information Security*. https://doi.org/10.58346/jisis.2024.i1.007
9. Prince Modey, **Gaddafi Abdul-Salaam**, Emmanuel Freeman, Patrick Acheampong, William Leslie Brown-Acquaye, Israel Edem Agbehadji, Richard C. Millham (2024). K-Means Based Bee Colony Optimization for Clustering in Heterogeneous Sensor Network. *Sensors*. https://doi.org/10.3390/s24237603
10. Seiba Alhassan, **Gaddafi Abdul-Salaam**, Michael Asante, Yaw Missah, Ernest Ganaa (2023). Analyzing Autoencoder-Based Intrusion Detection System Performance. *Journal of Information Security and Cybercrimes Research*. https://doi.org/10.26735/ylxb6430
11. Farhan Masud, **Gaddafi Abdul-Salaam**, Muhammad Anwar, Abdelzahir Abdelmaboud, Muhammad Sheraz Arshad Malik, Hadhrami Bin Ab Ghani (2023). Contention-based traffic priority MAC protocols in wireless body area networks: A thematic review. *Egyptian Informatics Journal*. https://doi.org/10.1016/j.eij.2023.100410
12. **Gaddafi Abdul-Salaam**, Y Missah (2023). ENHANCING AUTOENCODER PERFORMANCE FOR INTRUSION DETECTION SYSTEMS VIA OPTIMAL BOTTLENECK SIZE OPTIMIZATION IN A TWO HIDDEN LAYER ARCHITECTURE. *Scientific and practical cyber security journal*. https://journal.scsa.ge/wp-content/uploads/2023/12/0002_enhancing-autoencoder-performance-for-intrusion-detection-systems-via-optimal-bottleneck-size-optimization-in-a-two-hidden-layer-architecture.pdf
13. **G Abdul-Salaam**, Y Missah (2023). Hybrid Network Intrusion Detection Systems: A Systematic Review. *Sci. Pract. Cyber Secur. J.* https://journal.scsa.ge/wp-content/uploads/2023/12/0001_hybrid-network-intrusion-detection-systems-a-systematic-review.pdf
14. Owusu-Adjei Michael, James Ben Hayfron-Acquah, Twum Frimpong, **Gaddafi Abdul-Salaam**, Owusu-Debrah Nicholas, Kofi Fofie (2023). Imbalanced Dataset and Optimization Technique Use for Disease Treatment Default Prediction. *The International Journal of Science & Technoledge*. https://doi.org/10.24940/theijst/2023/v11/i5/st2305-005
15. Michael Owusu-Adjei, James Ben Hayfron-Acquah, Twum Frimpong, **Gaddafi Abdul-Salaam** (2023). Imbalanced class distribution and performance evaluation metrics: A systematic review of prediction accuracy for determining model performance in healthcare systems. *PLOS Digital Health*. https://doi.org/10.1371/journal.pdig.0000290
16. Michael Owusu-Adjei, James Ben Hayfron-Acquah, Frimpong Twum, **Gaddafi Abdul-Salaam** (2023). Machine Learning Modeling of Disease Treatment Default: A Comparative Analysis of Classification Models. *Advances in Public Health*. https://doi.org/10.1155/2023/4168770
17. Emmanuel Ahene, Joojo Walker, Rose-mary Owusuaa Mensah Gyening, **Gaddafi Abdul-Salaam**, James Ben Hayfron-Acquah (2022). Heterogeneous signcryption with proxy re-encryption and its application in EHR systems. *Telecommunication Systems*. https://doi.org/10.1007/s11235-022-00886-2
18. Fuseini Inusah, Ibrahim Mohammed Gunu, **Gaddafi Abdul-Salaam** (2021). Security Threat and Data Consumption as Mojor Nuisance of Social Media on Wi-Fi Network. *International Journal of Communications Network and System Sciences*. https://doi.org/10.4236/ijcns.2021.142002
19. Issah Zabsonre Alhassan, Edward Danso Ansong, **Gaddafi Abdul-Salaam**, Salamudeen Alhassan (2020). Enhancing Image Security during Transmission using Residue Number System and k-shuffle. *Earthline*

*Journal of Mathematical Sciences*. https://doi.org/10.34198/ejms.4220.399424

20. Farhan Masud, Abdul Hanan Abdullah, **Gaddafi Abdul-Salaam** (2019). Emergency traffic adaptive MAC protocol for wireless body area networks based on prioritization. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0225518
21. Mohammed Joda Usman, Abdul Samad Ismail, **Gaddafi Abdul-Salaam**, Hassan Chizari, Omprakash Kaiwartya, Abdulsalam Yau Gital, Muhammed Abdullahi, Ahmed Aliyu, Salihu Idi Dishing (2019). Energy-efficient Nature-Inspired techniques in Cloud computing datacenters. *Telecommunication Systems*. https://doi.org/10.1007/s11235-019-00549-9
22. Mohammed Joda Usman, Abdul Samad Ismail, Hassan Chizari, **Gaddafi Abdul-Salaam**, Ali Muhammad Usman, Abdulsalam Yau Gital, Omprakash Kaiwartya, Ahmed Aliyu (2019). Energy-efficient Virtual Machine Allocation Technique Using Flower Pollination Algorithm in Cloud Datacenter: A Panacea to Green Computing. *Journal of Bionic Engineering*. https://doi.org/10.1007/s42235-019-0030-7
23. Farhan Masud, Abdul Hanan Abdullah, Ayman Altameem, **Gaddafi Abdul-Salaam**, Farkhana Muchtar (2019). Traffic Class Prioritization-Based Slotted-CSMA/CA for IEEE 802.15.4 MAC in Intra-WBANs. *Sensors*. https://doi.org/10.3390/s19030466
24. **G Abdul-Salaam** (2018). Emergency traffic MAC protocols in Wireless Body Area networks. *Adhoc & Sensor Wireless Networks*. https://openurl.ebsco.com/contentitem/gcd:129743341?sid=ebsco:plink:crawler-gcd&id=ebsco:gcd:129743341&crl=c&jrnl=15519899
25. Shafi'I Muhammad Abdulhamid, Muhammad Shafie Abd Latiff, Haruna Chiroma, Oluwafemi Osho, **Gaddafi Abdul-Salaam**, Adamu I. Abubakar, Tutut Herawan (2017). A Review on Mobile SMS Spam Filtering Techniques. *IEEE Access*. https://doi.org/10.1109/access.2017.2666785
26. Fasee Ullah, Abdul Hanan Abdullah, **Gaddafi Abdul-Salaam**, Marina Md Arshad (2017). CDASA-CSMA/CA: Contention Differentiated Adaptive Slot Allocation CSMA-CA for Heterogeneous Data in Wireless Body Area Networks. *KSII Transactions on Internet and Information Systems*. https://doi.org/10.3837/tiis.2017.12.009
27. **G Abdul-Salaam** (2017). Energy harvesting and battery power based routing in wireless sensor networks. *Wireless Networks*.
28. **Gaddafi Abdul-Salaam**, Abdul Hanan Abdullah, Mohammad Hossein Anisi (2017). Energy-Efficient Data Reporting for Navigation in Position-Free Hybrid Wireless Sensor Networks. *IEEE Sensors Journal*. https://doi.org/10.1109/jsen.2017.2665663
29. **G Abdul-Salaam** (2017). Energy-Efficient Data Reporting for Navigation in Position-Free Hybrid Wireless Sensor Networks. *IEEE Sensors Journal*. https://ieeexplore.ieee.org/abstract/document/7845642/
30. Shafi'i Muhammad Abdulhamid, Muhammad Shafie Abd Latiff, **Gaddafi Abdul-Salaam**, Syed Hamid Hussain Madni (2016). Secure Scientific Applications Scheduling Technique for Cloud Computing Environment Using Global League Championship Algorithm. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0158102
31. **G Abdul-Salaam** (2016). Traffic Adaptive MAC Protocols in Wireless Body Area Networks. *Wireless Communications and Mobile Computing*. https://doi.org/10.1155/2017/8267162
32. **Gaddafi Abdul-Salaam**, Abdul Hanan Abdullah, Mohammad Hossein Anisi, Abdullah Gani, Abdulhameed Alelaiwi (2015). A comparative analysis of energy conservation approaches in hybrid wireless sensor networks data collection protocols. *Telecommunication Systems*. https://doi.org/10.1007/s11235-015-0092-8
33. **G Abdul-Salaam** (2015). A survey of wireless sensor network approaches and their energy consumption for monitoring farm fields in precision agriculture. *Precision Agriculture*. https://doi.org/10.1007/s11119-014-9371-8
34. Mohammad Hossein Anisi, **Gaddafi Abdul-Salaam**, Mohd. Yamani Idna Idris, Ainuddin Wahid Abdul Wahab, Ismail Ahmedy (2015). Energy harvesting and battery power based routing in wireless sensor networks. *Wireless Networks*. https://doi.org/10.1007/s11276-015-1150-6

### Conference papers 5

1. Prince Modey, **Gaddafi Abdul-Salaam**, William Leslie Brown-Acquaye, Emmanuel Freeman, Israel Edem Agbehadji, Richard C. Millham (2026). Improving Data Security in IoT Communication with the Residue Number Key Exchange Method. *Communications in computer and information science*. https://doi.org/10.1007/978-3-032-16764-4_15
2. Seiba Alhasan, **Gaddafi Abdul-Salaam**, Lambert Bayor, Kornyo Oliver (2021). Intrusion Detection System Based on Artificial Immune System: A Review. https://doi.org/10.1109/icsiot55070.2021.00011
3. Mohammed Borhandden Musah, Lokman Mohd. Tahir, Mohammed Issah, **Gaddafi Abdul-Salaam**, Shafeeq Hussain Al-Hudawi, Abdul Rawuf Hussein (2021). Managing the Quality of Undergraduate Students: Evidence from Ghanaian Higher Learning Institutions. https://doi.org/10.1109/slae54202.2021.9788091
4. Farkhana Muchtar, Abdul Hanan Abdullah, Marina Md Arshad, Mohd Helmy Abd Wahab, Siti Nor Zawani Ahmmad, **Gaddafi Abdul-Salaam** (2018). A Critical Review of MANET Testbed Using Mobile Robot Technology. *Journal of Physics Conference Series*. https://doi.org/10.1088/1742-6596/1019/1/012046
5. Farkhana Muchtar, Abdul Hanan Abdullah, Muhammad Shafie Abd Latiff, Suhaidi Hassan, Mohd Helmy Abd Wahab, **Gaddafi Abdul-Salaam** (2018). A Technical Review of MANET Testbed Using Mobile Robot Technology. *Journal of Physics Conference Series*. https://doi.org/10.1088/1742-6596/1049/1/012001

### Reports 1

1. **G Abdul—Salaam** (2017). Optimal resource scheduling for IaaS cloud computing using cuckoo search algorithm. *PloS one*. http://irepo.futminna.edu.ng:8080/jspui/handle/123456789/8950