Dominic Asamoah

Department of Computer Science
Kwame Nkrumah University of Science and Technology

ORCID 0000-0003-4393-4148 · Google Scholar scholar.google.com/citations?user=NyQ2tGEAAAAJ&hl=en · Profile knust.peerford.com/staff/4dca9337-4ca3-4528-8c3d-5229fc3d84d8

RESEARCH

Interests	Computing
Areas	Artificial Intelligence · Computer Networks and Communications · Information Systems · Biomedical Engineering · Computer Vision and Pattern Recognition · Experimental and Cognitive Psychology

RESEARCH SUMMARY

23	167	7	5	0.72	10%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 23 publications listed below, 2011–2026. Field-weighted impact is the mean over the 20 works scored for it; 1.00 is the world average for works of the same field, type and year. 2 of the 20 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2002–present
Computer Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

PhD Computer Science 2013–2017
Computer Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

MPhil Computer Science 2011–2013
Computer Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 20

1. Prince Asare Aning, **Dr. Dominic Asamoah**, Narain Kobby Gaisie, Dr. Emmanuel Ahene (2026). Quantum Resilient RSA Variants for cloud security. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.19973774
2. Eliezer Ofori Odei-Lartey, Stephaney Gyaase, **Dominic Asamoah**, Thomas Gyan, Kwaku Poku Asante, Michael Asante (2025). Advancing Knowledge on Machine Learning Algorithms for Predicting Childhood Vaccination Defaulters in Ghana: A Comparative Performance Analysis. *Applied Sciences*. https://doi.org/10.3390/app15158198
3. Eliezer Ofori Odei-Lartey, Stephaney Gyaase, Solomon Nyame, **Dominic Asamoah**, Kwaku Poku Asante, James Ben Hayfron-Acquah (2025). Feature representation in analysing childhood vaccination defaulter risk predictors: A scoping review of studies in low-resource settings. *PLOS Digital Health*. https://doi.org/10.1371/journal.pdig.0000965
4. Amiru Bakariwie, **Dominic Asamoah**, Abudu Ballu Duwiejuah (2025). Prevention of student attrition: a data-backed approach to school counselling using Delphi technique and multiple classification algorithms. *Discover Education*. https://doi.org/10.1007/s44217-025-00494-7

5. Prince Modey, **Dominic Asamoah**, Stephen Opoku Oppong, Emmanuel Kwesi Baah (2022). Error Detection and Correction in Wireless Sensor Networks Using Enhanced Reverse Conversion Algorithm in Healthcare Delivery System. *International Journal of Wireless and Microwave Technologies*. https://doi.org/10.5815/ijwmt.2022.05.05

6. Emmanuel Kwesi Baah, James Ben Hayfron-Acquah, **Dominic Asamoah** (2021). A Novel Approach to Pre-Impact Measurement from Impact Investing Using Random Forest and Deep Neural Networks. *International Journal of Computer Applications*. https://doi.org/10.5120/ijca2021921554

7. Michael Ametepe, **Dominic Asamoah**, Frimpong Twum (2020). Evaluating the Impact of Full Virtualized High- Performance Computing Platform on Large Scale Scientific Data using Quantum Espresso. *International Journal of Computer Applications*. https://doi.org/10.5120/ijca2020919856

8. Stephen Opoku Oppong, **Dominic Asamoah**, Emmanuel Ofori Oppong, Derrick Lamptey (2019). Business Decision Support System based on Sentiment Analysis. *International Journal of Information Engineering and Electronic Business*. https://doi.org/10.5815/ijieeb.2019.01.05

9. **Dominic Asamoah**, Emmanuel Ofori Oppong, Peter Amoako-Yirenkyi, Stephen Opoku Oppong (2019). Human Fatigue Characterization and Detection Using the Eyelid State and Kalman Filter. *Asian Journal of Research in Computer Science*. https://doi.org/10.9734/ajrcos/2019/v3i130082

10. Emmanuel Ofori Oppong, Stephen Opoku Oppong, **Dominic Asamoah**, Nuku Atta Kordzo Abiew (2019). Meta-Heuristics Approach to Knapsack Problem in Memory Management. *Asian Journal of Research in Computer Science*. https://doi.org/10.9734/ajrcos/2019/v3i230087

11. Robert French-Baidoo, **Dominic Asamoah**, Stephen Opoku Oppong (2018). Achieving Confidentiality in Electronic Health Records using Cloud Systems. *International Journal of Computer Network and Information Security*. https://doi.org/10.5815/ijcnis.2018.01.03

12. **Dominic Asamoah**, Emmanuel Ofori, Stephen Opoku, Juliana Danso (2018). Measuring the Performance of Image Contrast Enhancement Technique. *International Journal of Computer Applications*. https://doi.org/10.5120/ijca2018917899

13. **Dominic Asamoah**, Peter Amoako-Yirenkyi, Stephen Opoku, Nuku Atta (2017). Establishing the Blink Cycle of the Eye using OTSU Method and Gaussian Filter. *International Journal of Computer Applications*. https://doi.org/10.5120/ijca2017915514

14. Nuku Atta, **Dominic Asamoah** (2017). Implementing Lock Free Data Structure for Shared-Memory Systems using Linked List. *International Journal of Computer Applications*. https://doi.org/10.5120/ijca2017915806

15. **Dominic Asamoah**, Samuel Winful, Stephen Opoku (2017). Intelligent Vehicular Traffic Light Control using Hidden Markov Model. *Communications on Applied Electronics*. https://doi.org/10.5120/cae2017652668

16. **Dominic Asamoah**, Richard Marfo, Stephen Opoku Oppong (2017). Measuring the Severity of Fungi Caused Disease on Leaves using Triangular Thresholding Method. *International Journal of Applied Information Systems*. https://doi.org/10.5120/ijais2017451668

17. **Dominic Asamoah**, Evans Baidoo, Stephen Opoku Oppong (2017). Optimizing Memory using Knapsack Algorithm. *International Journal of Modern Education and Computer Science*. https://doi.org/10.5815/ijmecs.2017.05.05

18. Stephen Opoku Oppong, **D Asamoah** (2016). Value at risk: historical simulation or monte carlo simulation. *International Conference On Management, Communication and Technology (ICMCT)*. https://www.ijictm.org/pdf/folder-1/2016-09-14-07-53-53.pdf

19. **D Asamoah** (2015). Assessment of data quality on expanded Programme on immunization in Ghana: the case of new Juaben municipality. *J Health Med Informat*. https://scholar.google.com/scholar?cluster=17199961153770105880&hl=en&oi=scholarr

20. **D Asamoah** (2011). Use of Compression Methods for Data Security Assurance. *European Conference on Cyber Warfare and Security*. https://search.proquest.com/openview/fac7d2a6451e55405a9e9d85bc1c8117/1?pq-origsite=gscholar&cbl=396497

Book chapters 1

1. Dominic Asamoah Ampofo, Augustine Atta Essel, **Dominic Asamoah**, Shantipriya Parida (2024). Twi Speech Processing: Techniques and Applications. *Studies in computational intelligence*. https://doi.org/10.1007/978-981-97-1987-7_13

Conference papers 2

1. Emmanuel Kwesi Baah, **Dominic Asamoah**, Frederick Ledi, Anthony Kingsley Sackey, Eric Agyekum Nana Boamah, Richard Kofi Doh (2026). An Interpretable Hybrid Model for PDF Malware Detection Using CNN and Vision Transformer. https://doi.org/10.23919/icact68090.2026.11431538
2. Emmanuel Kwesi Baah, Steven Yirenkyi, **Dominic Asamoah**, Stephen Opoku Oppong, Edward Opoku-Mensah, Benjamin Tei Partey, Anthony Kingsley Sackey, Oliver Kornyo, Evans Obu (2022). Enhancing Port Scans Attack Detection Using Principal Component Analysis and Machine Learning Algorithms. *Communications in computer and information science*. https://doi.org/10.1007/978-981-19-8445-7_8