

Curriculum Vitae

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SUMMARY

Technologist and academic with a strong background in computer science, artificial intelligence, and digital transformation. Over a decade of teaching, research, educational leadership, and industry experience in multicultural settings. Skilled in interdisciplinary research, curriculum development, and student mentorship. Passionate about using advanced technologies to solve real-world challenges in education, healthcare, and sustainable development.

EDUCATION

- **PhD in Digital Science (Computer Science)**, Universiti Brunei Darussalam, Brunei Darussalam (2025)
Thesis: Spatiotemporal Analysis of Tropical Landscapes Using Deep Learning-Based Semantic Segmentation Models and Satellite Imagery
- **Postgraduate Diploma in Monitoring and Evaluation**, Uganda Management Institute, 2019.
- **MSc in Technical Education with specialization in Computer Science and Engineering**, Islamic University of Technology, Dhaka, Bangladesh (2016)
Thesis: Massive open online courses (MOOCs): Emerging possibilities for quality education in Uganda
- **BSc in Technical Education with specialization in Computer Science and Engineering**, Islamic University of Technology, Dhaka, Bangladesh (2013)
- **Diploma in Technical Education with Specialization in Computer Science and IT**, Islamic University of Technology, Dhaka, Bangladesh (2011)
- **Ordinary Diploma in Computer Engineering**, Kyambogo University, Uganda (2010)

RESEARCH INTERESTS

Educational Technologies, Artificial Intelligence, Machine Learning, Deep Learning, Geoscience, Digital Image Processing, Remote Sensing, Computer Vision, Ecological Informatics, Internet of Things, Smart Cities, Information Systems, Business Process Management, Cybersecurity, Healthcare Informatics.

RESEARCH STATEMENT

My research integrates advanced technologies, including artificial intelligence, cybersecurity, and geospatial analysis, to address societal and technological challenges. Through collaborative and interdisciplinary approaches, I aim to bridge the gap between theoretical advancements and real-world applications, especially in underrepresented contexts.

TEACHING PHILOSOPHY

I believe in creating an inclusive and engaging learning environment that emphasizes critical thinking, innovation, and ethical practice. My teaching combines theoretical knowledge with hands-on applications, preparing students for both academic progression and professional excellence. I integrate modern tools such as blended learning platforms and problem-based learning to accommodate diverse learning styles. Mentorship, constructive feedback, and fostering a research-oriented mindset are central to my educational approach.

SKILLS

Research and Publication, Academic Leadership, Project Supervision, ArcGIS & QGIS, Research Supervision, Public Speaking, Technical Writing, Multicultural Collaboration, Office & Web Applications.

WORK EXPERIENCE

1. Dean, School of Technology, Computing, and Engineering, Universal Technology and Management University (UTAMU) – January 2026 – Present

As Dean of the School of Technology, Computing and Engineering, my ongoing responsibilities include:

- Providing academic, administrative, and strategic leadership to the School in alignment with the University's mission, policies, and strategic objectives.
- Developing and implementing the School's academic policies, procedures, operational plans, and strategic priorities.
- Overseeing departments to ensure the effective delivery of high-quality teaching, research, innovation, community engagement, and professional services.
- Supervising curriculum development, review, implementation, and quality assurance to ensure programmes remain relevant and meet institutional and regulatory standards.
- Promoting the assessment of student learning outcomes and ensuring that assessment findings inform improvements in teaching, curricula, and academic quality.
- Monitoring students' academic progress and completion requirements and presenting eligible candidates to the School Board of Studies for consideration.

- Convening and chairing School Board meetings and ensuring that agreed actions are implemented.
- Evaluating the performance of academic and support staff in collaboration with Heads of Department and promoting their professional development.
- Reporting to University management on the School's performance, achievements, resource requirements, operational challenges, and strategic priorities.
- Representing the School on the University Senate and collaborating with other Deans and academic leaders on institution-wide matters.
- Contributing to the formulation and review of University academic and administrative policies through participation in Senate committees and other governance structures.
- Promoting research, innovation, partnerships, student success, and community engagement across the School.
- Performing other leadership and administrative responsibilities assigned by the University's management.

2. Associate Professor of Computer Science, Department of Computing and Engineering, School of Technology, Computing, and Engineering, Universal Technology and Management University (UTAMU) – (August 2026 – Present).

As an Associate Professor of Computer Science, my ongoing responsibilities include:

- Planning and delivering lectures for postgraduate students in line with approved curricula, academic timetables, and institutional standards.
- Developing, uploading, and managing high-quality online courseware in compliance with UTAMU's e-learning standards.
- Providing learning and reading materials, facilitating group work and assignments, monitoring attendance, and responding to student inquiries through the e-learning platform.
- Designing, administering, invigilating, and marking coursework, tests, and examinations across face-to-face, open-book, online, and distance-learning formats.
- Supervising postgraduate research, including guiding students in research design, system development, data analysis, academic writing, and dissemination.
- Conducting research in computer science, artificial intelligence, data science, and related fields, and publishing findings in reputable scholarly outlets.
- Presenting research papers at conferences, seminars, workshops, and other academic forums.
- Participating in School and University meetings, curriculum development, programme reviews, quality assurance, research, community outreach, and other academic activities.

- Mentoring students and junior academic staff while contributing to the advancement of teaching, research, innovation, and professional practice within the University

3. AI & Digital Literacy Trainer for Legal Professionals at the Centre for ICT and Law, UTAMU 2026–Present

- Teach legal professionals enrolled in the Postgraduate Certificate in Artificial Intelligence (PGCAI) and Postgraduate Certificate in Digital Literacy (PGCDL) programmes.
- Deliver practical training on the application of artificial intelligence and digital technologies in legal research, practice, communication, and decision-making.
- Develop and deliver course materials that address the responsible, ethical, and effective use of AI and digital tools within the legal profession.
- Guide participants in using digital platforms and AI-assisted tools to improve legal research, document preparation, professional productivity, and access to legal information.
- Assess participants' learning through practical exercises, assignments, and applied assessments tailored to professional legal contexts.

4. Volunteer Professor and AI Skills Facilitator - Professors Without Borders PROWIBO), Eswatini from 27th–31st July 2026

- Delivered practical training to young people on artificial intelligence, career development, workplace productivity, and professional communication.
- Guided participants in using AI tools to develop CVs, tailor cover letters, strengthen LinkedIn profiles, write professional emails, generate business ideas, and prepare presentations.
- Facilitated interactive sessions on effective prompting, responsible AI use, critical thinking, and verification of AI-generated information.
- Supported participants in exploring entrepreneurship opportunities and developing practical, low-capital business ideas relevant to the Eswatini context.
- Contributed to international academic outreach and youth capacity-building through practical, learner-centred training activities.

5. Senior Lecturer, Department of Computing and Engineering, School of Technology, Computing, and Engineering, Universal Technology and Management University (UTAMU) – Jan 2026 – 31st July 2026

- Successfully taught a minimum of five course units per semester in compliance with UTAMU's workload and quality assurance requirements.
- Planned and delivered lectures according to approved curricula and timetables while developing and managing online courseware in line with UTAMU's e-learning standards.

- Delivered postgraduate modules for the Master of Artificial Intelligence and Data Science programme, including Foundations of Data Science, Capstone Project I, and Specialization Electives.
- Enhanced student learning by providing comprehensive learning materials, facilitating group work and assignments, maintaining attendance records, and responding promptly to inquiries through the e-learning platform.
- Designed, administered, invigilated, and marked tests and examinations.
- Supervised undergraduate and postgraduate research, guiding students in research design, implementation, analysis, and academic writing.
- Contributed to School and University academic activities through participation in meetings, research, outreach initiatives, and academic conferences.
- Advanced scholarly engagement through research, academic publications, and the presentation of papers at University-organized conferences.

6. Lecturer, Department of Computer Science, Islamic University in Uganda – Main Campus, Mbale (Jan 2017 – December 2025): Address – P. O Box 2555, Kumi Road, Mbale City, Uganda.

- Teaching/Taught and examined undergraduate and postgraduate CS and IT courses including Introduction to Computing, Information systems, Digital Logic Design, Data Structures and Algorithms, Computer Organization and Architecture, Operating Systems, Database Systems, Software Engineering, Human–Computer Interaction, Computer and Information Security, as well as Artificial Intelligence.
- Taught Postgraduate courses include: Managing the Digital Enterprise, ICTs for Organizational Transformation, IT Project Planning and Management, and Business Process Management.
- Supervised over 20 final-year BSc/BIT student projects.
- Participated in curriculum design and evaluation.
- Provided career guidance to students.

7. Cybersecurity Project Manager – SPI BN, Brunei Darussalam (September 2024 – November 2025 - Hybrid). Address: Jerudong, Bandar Seri Begawan, Brunei Darussalam

- Successfully led multiple cybersecurity client engagements, helping organizations identify critical security gaps through comprehensive risk assessments, vulnerability scans, and system audits.
- Delivered high-level cybersecurity advisory and consultation services to clients by analyzing their unique threat environments, business needs, and operational structures.

- Delivered tailored cybersecurity awareness and training workshops to end-users and technical staff, promoting safer computing practices and reducing human-factor vulnerabilities.
- Engaged and negotiated with multiple vendors of cybersecurity awareness platforms to secure the most cost-effective and value-driven subscription packages for clients.
- Conducted product demonstrations and solution walkthroughs for clients, clearly showcasing cybersecurity tools, features, and organizational benefits to support informed adoption decisions.
- Developed and produced cybersecurity awareness training materials that were later integrated and delivered through the Phished.io Academy for client learning and capacity building.
- Participated in multiple cybersecurity awareness workshops in Brunei, expanding professional knowledge, aligning practices with regional standards, and strengthening industry presence.
- Promoted SPI BN's cybersecurity solutions within the Brunei market by engaging stakeholders, establishing relationships, and identifying emerging security needs within local organizations.
- Built long-term client relationships as the primary Cybersecurity Advisor by providing ongoing support, technical insights, performance reviews, and security maturity roadmap updates.
- Contributed to the company's business growth through proposal development, RFP response submissions, solution presentations, and technical demonstrations to new and existing clients.

8. Part-time Lecturer at Laksamana College of Business and both the University of Essex & University of Chester (Brunei Branch), Brunei Darussalam (March 2023 – June 2024). Bandar Seri Begawan, Brunei Darussalam

- Taught computer science subjects including Internet of Things, Security, Information Systems, Fundamentals of Programming, Website Design and Development, and Experiential Learning.
- Provided career guidance to students and supervised projects.
- Was introduced to the UK education system.

9. Head of Department, Computer Science, Islamic University in Uganda (Aug 2019 – Dec 2021). Address: P. O Box 2555, Kumi Road, Mbale City, Uganda

- Provided strategic leadership for academic, HR, and administrative operations, ensuring smooth departmental functioning and alignment with institutional goals.

- Spearheaded the development and accreditation of the Master's program in IT Management, expanding the department's postgraduate offerings and academic profile.
- Led the successful transition to online and blended learning modalities during the COVID-19 pandemic, maintaining instructional continuity and academic quality.
- Promoted a strong research and community engagement culture, encouraging faculty and student involvement in applied ICT projects and scholarly work.
- Represented the department on the university's executive board, contributing to high-level decision-making and institutional planning.
- Served as chief examiner across four campuses, overseeing assessment standards, exam integrity, and academic performance consistency.

10. Assistant Lecturer (Part-Time), Kyambogo University, Uganda (Jan 2018 – Jun 2022 and 2025 - present). Address: P. O Box 1, Kyambogo, Kampala, Uganda

- Taught and examined 'Introduction to Computer Science' for engineering departments (Chemistry, Civil, Mechanical, and Electrical).

11. Teaching Assistant, Islamic University in Uganda (Jan 2014 – Dec 2014). Address: P. O Box 2555, Kumi Road, Mbale City, Uganda.

- Taught diploma-level courses including Digital Logic, Web Design, and E-commerce.
- Supervised three diploma final-year projects.

CONFERENCE PARTICIPATION AND ATTENDANCE.

I have attended and presented peer-reviewed articles at the following conferences:

S/N	Conference	Location	Year
1	2nd International Symposium on AI-Driven Engineering Systems (ISADES 2026). Chaired three technical sessions	Mbale, Uganda	2026
2	10th International Conference on Information Technology and Digital Application (ICITDA) – Virtual Attendance	Yogyakarta, Indonesia	2025
3	2025 IST-Africa Conference (IST-Africa)	Nairobi, Kenya	2025
4	2nd International Conference on Machine Intelligence and Emerging Technologies (MIET 2024) – Virtual Attendance	Noakhali, Bangladesh	2024
5	TENCON 2024 - IEEE Region 10 Conference	Singapore	2024
6	2024 IEEE Wireless Communications and Networking Conference (WCNC)	Dubai, United Arab Emirates	2023

7	2023 IEEE Intl Conf on Dependable, Autonomic and Secure Computing, Pervasive Intelligence and Computing, Cloud and Big Data Computing, Cyber Science and Technology Congress (DASC/PiCom/CBDCoM/CyberSciTech)	Abu Dhabi, United Arab Emirates	2023
8	2023 IEEE AFRICON	Nairobi, Kenya	2023
9	International Conference on Mechanical, Automotive and Mechatronics Engineering (ICMAME) – Virtual Attendance	Abu Dhabi, United Arab Emirates	2023

CURRICULUM DEVELOPMENT

Between 2020 and 2021, I served as Chairperson of the Curriculum Review Committee for the Department of Computer Science at the Islamic University in Uganda (IUIU), where I led the comprehensive review of all academic programmes within the department. This process involved curriculum benchmarking, stakeholder engagement, programme restructuring, and module enhancement to ensure compliance with national and international academic standards. In total, nine (9) academic programmes were successfully reviewed, revised, and subsequently approved by the National Council for Higher Education.

In addition to programme-level reviews, I contributed to the redesign and enhancement of several course modules across selected programmes, ensuring alignment with emerging industry needs, technological advancements, and graduate employability requirements.

VETTING OF PUBLICATIONS / REVIEWER

I serve as a reviewer for the following journals

- Electronics Journal, MDPI
- Journal of Cybersecurity and Privacy, MDPI
- Environmental Management, Springer
- ASEAN Journal on science and technology for development
- International Journal of Applied earth observation and geoinformation, Elsevier

I also review articles submitted to the following conferences

- International Conference on Information Technology and Digital Application (ICITDA)
- International Conference on Machine Intelligence and Emerging Technologies

PUBLISHED BOOKS

- **Smart Technologies for Sustainable Agriculture: Integrating Ecological Practices with Computational Intelligence (2026).** Published by Taylor and Francis, ISBN 9781003677086

LINK: <https://www.taylorfrancis.com/books/edit/10.1201/9781003677086/smart-technologies-sustainable-agriculture-wasswa-shafik-rufai-yusuf-zakari-kassim-kalinaki->

[robbooni-tumuhimbise-ahmed-abba-haruna?context=ubx&refId=2d446fe6-2261-475d-8fa6-541905a7062f](https://orcid.org/0009-0001-8000-8000/robbooni-tumuhimbise-ahmed-abba-haruna?context=ubx&refId=2d446fe6-2261-475d-8fa6-541905a7062f)

Books in development

- **AI-Driven Cyber Resilience for Industrial IoT Ecosystems (to be published by Taylor and Francis)**
- **Introduction to EcoIntelligence (to be published by Springer).**

POST-GRADUATE SUPERVISION TO COMPLETION

I have supervised 3 master's students to completion and am currently supervising 4 master's students

COMPLETED GRANTS & FUNDED PROJECTS

No .	Project Title	Grant Number	Amount (USD)	Funder	Project Duration	Deliverables
1	Artificial Intelligence Systems for Improved Maternal Health in Uganda	SUN-RIF/2022/30	\$13,000	Soroti University	Nov 2023 – Dec 2024 (1 Year 1 Month)	2 Articles published; Mobile and web app developed
2	Analyzing the Role of Technology and its Impact on Refugee Management in Uganda	RCC/2024/GMR/001	\$2,400	Islamic University in Uganda	April 2024 – April 2025 (1 Year)	1 Article published
3	Development of Smart Waste Management Systems Using AI, IoT and GIS for Urban Sustainability in Uganda	SUN-RIF/2025/26	\$12,000	Soroti University	January 2026 – Dec 2026 (1 Year)	In progress

RESEARCH OUTPUT SUMMARY

Total Publications (as of January 2025) is 72 articles and 4 books in development.:

- Journal Articles: 15
- Book Chapters: 44
- Conference Papers: 12
- Magazine Article: 1

RESEARCH DATABASES

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=58174759100>

Google Scholar: <https://scholar.google.com/citations?user=4f13Bz8AAAAJ&hl=en>

ResearchGate: <https://www.researchgate.net/profile/Kassim-Kalinaki>

Web of Science: <https://www.webofscience.com/wos/author/record/ADK-2304-2022>

ORCID: <https://orcid.org/0000-0001-8630-9110>

Personal website: <https://kalinaki.com>

JOURNAL ARTICLES

1. Shafik, W., Hidayatullah, A. F., Kalinaki, K., Gul, H., Zakari, R. Y., & Tufail, A. (2026). A systematic literature review on transparency and interpretability of AI models in healthcare: Taxonomies, tools, techniques, datasets, open research challenges, and future trends. *Health and Technology*, 16(2), 209–230. <https://doi.org/10.1007/s12553-025-01051-w>
2. Aslam, M. M., Shafik, W., Hidayatullah, A. F., Kalinaki, K., Gul, H., Zakari, R. Y., & Tufail, A. (2025). Intelligent transportation systems: A critical review of the integration of cyber-physical systems and Industry 4.0. *Digital Communications and Networks*, 12(1), 143–164. <https://doi.org/10.1016/j.dcan.2025.06.014>
3. Rayun, S. M. N., Salam, M. A., Islam, W., Firmansyah, E. A., & Kalinaki, K. (2025). Unraveling the dynamics of mobile wallets in promoting cashless tourism in Bangladesh: Implementation of the UTAUT2 model. *Journal of Hospitality and Tourism Technology*, 16(5), 1046–1065. <https://doi.org/10.1108/JHTT-04-2024-0222>
4. Alfarisy, G. A. F., Kalinaki, K., Malik, O. A., Putra, R. K., & Nuryono, A. A. (2025). Open plant species recognition using vision transformer network and top-K logit disparity score. *Innovative Informatics and Artificial Intelligence Research*, 1(1), 12–18. <https://journal.itk.ac.id/index.php/IIAIR/article/view/1227>
5. Alli, A. A., & Kalinaki, K. (2025). Analysis of the role of technology and its impact on refugee management in Uganda. *Islamic University Journal of Social Sciences*, 1(2). <https://journals.iuiu.ac.ug/index.php/iujss/article/view/706>
6. Shafik, W., Kalinaki, K., & Matinkhah, S. M. (2024). Technical loopholes and trends in unmanned aerial vehicle communication systems. *International Journal of Technology*, 15(3), 654–664. <https://doi.org/10.14716/ijtech.v15i3.5644>

7. Abubakari, M. S., Zakaria, G. A. N., Musa, J., & Kalinaki, K. (2023). Assessing digital competence in higher education: A gender analysis of the DigComp 2.1 framework in Uganda. *SAGA: Journal of Technology and Information Systems*, 1(4), 114–120. <https://doi.org/10.58905/saga.v1i4.210>
8. Abubakari, M. S., Zakaria, G. A. N., Musa, J., & Kalinaki, K. (2023). Validating the digital competence (DigComp 2.1) framework in higher education using confirmatory factor analysis: A non-Western perspective. *Canadian Journal of Educational and Social Studies*, 3(6), 15–26. <https://doi.org/10.53103/cjess.v3i6.184>
9. Kalinaki, K., Malik, O. A., & Lai, D. T. C. (2023). FCD-AttResU-Net: An improved forest change detection in Sentinel-2 satellite images using attention residual U-Net. *International Journal of Applied Earth Observation and Geoinformation*, 122, Article 103453. <https://doi.org/10.1016/j.jag.2023.103453>
10. Alicon, A. T., & Kalinaki, K. (2023). Positioning higher education institutions as work-based ICT-integrated learning theatres for employee mid-career development: A strategy for HR capacity building. *Higher Education, Skills and Work-Based Learning*, 13(5), 955–968. <https://doi.org/10.1108/HESWBL-02-2023-0047>
11. Kalinaki, K., Malik, O. A., Lai, D. T. C., Sukri, R. S., & Abdul Wahab, R. B. H. (2023). Spatial-temporal mapping of forest vegetation cover changes along highways in Brunei using deep learning techniques and Sentinel-2 images. *Ecological Informatics*, 77, Article 102193. <https://doi.org/10.1016/j.ecoinf.2023.102193>
12. Alabdulatif, A., Thilakarathne, N. N., & Kalinaki, K. (2023). A novel cloud-enabled access control model for preserving the security and privacy of medical big data. *Electronics*, 12(12), Article 2646. <https://doi.org/10.3390/electronics12122646>
13. Haolader, F. A., Hakim, W., Kalinaki, K., & Mubarak, H. R. (2017). A comparative study on the academic performance of students in bachelor's degree of information technology having arts and science backgrounds in Uganda. *World Journal of Educational Research*, 4(2). <https://doi.org/10.22158/wjer.v4n2p257>
14. Haolader, F. A., Cicioglu, D., & Kalinaki, K. (2017). A model of technical and vocational teacher education at bachelor's degree level and its relevance to the occupational tasks of TVET teachers in the OIC member states. *TVET@Asia*, 8. <https://tvet-online.asia/8/haolader-etal/>
15. Kalinaki, K. (2019). Massive open online courses (MOOCs): Emerging possibilities for quality education in Uganda. *Islamic University Multidisciplinary Journal*, 6(4). <https://www.iuiu.ac.ug/journaladmin/iumj/ArticleFiles/44943.pdf>

BOOK CHAPTERS

1. Shafik, W., & Kalinaki, K. (2026). Robustness against adversarial attacks and model security in Healthcare 5.0. In *The convergence of federated learning and Healthcare 5.0 and beyond: A new era of intelligent health systems*. Springer. https://doi.org/10.1007/978-3-032-03985-9_17 (ISBN 978-3-032-03985-9)
2. Afiqah, A., & Kalinaki, K. (2026). AI-driven education: Building skills for the future in Brunei Darussalam. In *Emerging technologies and business development in the tropics*. Taylor & Francis. <https://doi.org/10.4324/9781003586043-15> (ISBN 978-1-003-58604-3)

3. Kalinaki, K., Shafik, W., & Eahsun, K. (2026). Using online predictions and machine learning for fraud detection in online transactions. In *Real-time artificial intelligence (AI): Key motivations, technologies, platforms, and use cases*. Taylor & Francis. <https://doi.org/10.1201/9781998511358-8> (ISBN 978-1-9985-1135-8)
4. Nabukeera, M., Kalinaki, K., & Matovu, M. (2026). Comparative analysis of ICT usage in Ugandan ministries, departments, agencies, and local governments. In *Global perspectives on digital governance and national transformation*. IGI Global. <https://doi.org/10.4018/979-8-3373-8505-1.ch007> (ISBN 979-8-3373-8505-1)
5. Kalinaki, K., Nabukeera, M., & Matovu, M. (2025). A comparative analysis of generative AI traffic across continents. In *Digital synthetic data and outputs* (pp. 379–408). IGI Global. <https://doi.org/10.4018/979-8-3373-2277-3.ch015> (ISBN 979-8-3373-2277-3)
6. Kalinaki, K., Malik, O. A., Alfarisy, G. A., & Nassanga, J. (2026). NFT security in smart cities: An exploration of challenges, countermeasures, and emerging trends. In *Non-fungible tokens (NFTs) in smart cities: Advancements and security challenges* (pp. 201–234). IGI Global. <https://doi.org/10.4018/979-8-3693-8876-1.ch008> (ISBN 979-8-3693-8876-1)
7. Kalinaki, K. (2025). Internet of Health Things (IoHT): An exploration of the principles, components, architectures, challenges, and real-world applications. In *Cybersecurity for Internet of Health Things* (pp. 3–25). Taylor & Francis. <https://doi.org/10.1201/9781003483267-2> (ISBN 978-1-003-48326-7)
8. □ Zakari, R. Y., Kalinaki, K., Lawal, Z. K., & Abdulrazak, N. (2025). Advances in wildfire spread detection and prediction: Techniques, challenges, and applications. In *Artificial intelligence and computer vision for ecological informatics* (pp. 9–35). Taylor & Francis. <https://doi.org/10.1201/9781003518778-2> (ISBN 978-1-003-51877-8)
9. Zakari, R. Y., Lawal, Z. K., Kalinaki, K., & Shafik, W. (2025). Leveraging remote sensing for agriculture mapping: Techniques, applications, and future directions. In *Artificial intelligence and computer vision for ecological informatics* (pp. 36–66). Taylor & Francis. <https://doi.org/10.1201/9781003518778-3> (ISBN 978-1-003-51877-8)
10. Shafik, W., Zakari, R. Y., & Kalinaki, K. (2025). Ethical and privacy concerns in bioinformatics and cyber-physical systems integration in healthcare. In *AI-driven personalized healthcare solutions* (pp. 333–364). IGI Global. <https://doi.org/10.4018/979-8-3693-7858-8.ch012> (ISBN 979-8-3693-7858-8)
11. Kalinaki, K., & Kalinaki, A. (2025). Big data's impact on healthcare and bioinformatics. In *Cyber-physical systems security* (pp. 23–51). Springer. https://doi.org/10.1007/978-981-97-5734-3_2 (ISBN 978-981-97-5734-3)
12. Kalinaki, K. (2024). Ransomware threat mitigation strategies for protecting critical infrastructure assets. In *Ransomware evolution* (pp. 120–143). Taylor & Francis. <https://doi.org/10.1201/9781003469506-10> (ISBN 978-1-003-46950-6)
13. Aslam, M. M., Kalinaki, K., Tufail, A., Naim, A. G. H., Khan, M. Z., & Ali, S. (2025). Social engineering attacks in the Industrial Internet of Things and smart industry: Detection and prevention. In *Emerging threats and countermeasures in cybersecurity* (pp. 389–412). Wiley. <https://doi.org/10.1002/9781394230600.ch17> (ISBN 978-1-394-23060-0)
14. Kalinaki, K. (2024). IoT and blockchain integration for enhanced AI-driven business intelligence. In *Intersection of AI and business intelligence in data-driven decision-making*

- (pp. 21–52). IGI Global. <https://doi.org/10.4018/979-8-3693-5288-5.ch002> (ISBN 979-8-3693-5288-5)
15. Hidayatullah, A. F., Kalinaki, K., Gul, H., Zakari, R. Y., & Shafik, W. (2024). Leveraging natural language processing for enhanced text analysis in business intelligence. In *Intersection of AI and business intelligence in data-driven decision-making* (pp. 151–182). IGI Global. <https://doi.org/10.4018/979-8-3693-5288-5.ch006> (ISBN 979-8-3693-5288-5)
 16. Kalinaki, K., Zakari, R. Y., & Shafik, W. (2024). Emerging trends in cybersecurity applications in healthcare systems. In *Cybersecurity in emerging healthcare systems* (pp. 107–128). Institution of Engineering and Technology. https://doi.org/10.1049/PBHE064E_ch4 (ISBN 978-1-83953-951-0)
 17. Zakari, R. Y., Kalinaki, K., Lawal, Z. K., & Abdulrazak, N. (2024). Federated learning for enhanced cybersecurity in modern digital healthcare systems. In *Cybersecurity in emerging healthcare systems* (pp. 579–606). Institution of Engineering and Technology. https://doi.org/10.1049/PBHE064E_ch19 (ISBN 978-1-83953-951-0)
 18. Alli, A. A., Kalinaki, K., Fahadi, M., & Ibrahim, L. (2024). Securing Industrial Internet of Things (IIoT): A review of technologies, strategies, challenges, and future trends. In *Artificial intelligence solutions for cyber-physical systems* (pp. 244–263). Taylor & Francis. <https://doi.org/10.1201/9781032694375-14> (ISBN 978-1-032-69437-5)
 19. Salam, M. A., Rayun, S. M. N., Islam, W., Hasan, R., Firmansyah, E. A., & Kalinaki, K. (2024). Consumer engagement: Exploring deepfake applications in consumer marketing communication. In *Navigating the world of deepfake technology* (pp. 397–421). IGI Global. <https://doi.org/10.4018/979-8-3693-5298-4.ch020> (ISBN 979-8-3693-5298-4)
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 21. Kalinaki, K., Malik, O. A., Yahya, U., & Lai, D. T. C. (2024). Federated learning challenges and risks in modern digital healthcare systems. In *Federated learning for digital healthcare systems* (pp. 283–300). Elsevier. <https://doi.org/10.1016/B978-0-443-13897-3.00004-7> (ISBN 978-0-443-13897-3)
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- Digital Application (ICITDA)* (pp. 1–7). IEEE. <https://doi.org/10.1109/ICITDA68167.2025.11332346> (Print ISBN 979-8-3315-9404-6; electronic ISBN 979-8-3315-9403-9)
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 4. Nabukeera, M., Kalinaki, K., Matovu, M., & Salam, M. A. (2025). Evaluating 4G network reach and fiber node proximity across Uganda's sub-regions. In *Proceedings of the 2nd International Conference on Machine Intelligence and Emerging Technologies (MIET 2024)* (pp. 239–248). Springer. https://doi.org/10.1007/978-981-96-2721-9_16 (Print ISBN 978-981-96-2720-2; online ISBN 978-981-96-2721-9)
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 12. Shafik, W., Matinkhah, S. M., & Kalinaki, K. (2023). An intrusion anomaly detection approach to mitigate sensor attacks on mechatronics systems. In *Proceedings of the International Conference on Mechanical, Automotive and Mechatronics Engineering (ICMAME)*. <https://doi.org/10.53375/icmame.2023.113> (ISBN 978-625-00-1526-1)

MAGAZINE ARTICLE

1. Kalinaki, K., Shoko, C., Fru, M. I. N., Aribisala, A., Chaurasia, M. A., & Kushwaha, S. K. P. (2024). Career development activities for African women, students, and young professionals in geoscience and remote sensing. *IEEE Geoscience and Remote Sensing Magazine*, 12(2), 100–104. <https://doi.org/10.1109/MGRS.2024.3387929>

PROFESSIONAL CERTIFICATES

2. Certified Information Systems Security Professional (CISSP) – Certificate of Completion
3. Google Cybersecurity:
<https://www.coursera.org/account/accomplishments/specialization/certificate/0GF PQCUC6BB5>
4. Introduction to Cybersecurity Tools & Cyber Attacks:
<https://www.coursera.org/verify/LUQEUAHVJH8>
5. Cybersecurity Roles, Processes & Operating System Security:
<https://www.coursera.org/verify/CDHE3SHAPYNN>

6. Cybersecurity Compliance Framework & System Administration:
<https://www.coursera.org/verify/Y4YC9JEU3KBR>
7. Network Security & Database Vulnerabilities:
<https://www.coursera.org/verify/BYFY2N9655H4>
8. Big Data, Artificial Intelligence, and Ethics:
<https://www.coursera.org/verify/96YCC3A9BVNU>
9. ICSI | Certified Network Security Specialist (CNSS):
<https://ondemand.icsiglobal.com/certificates/jsa4tvuaxs>
10. Cybersecurity and Mobility:
<https://www.coursera.org/verify/TAUEWZ8A7B6R>
11. Cybersecurity and the X-Factor:
<https://www.coursera.org/verify/9UXRV84HMNPR>
12. Cybersecurity and the Internet of Things:
<https://www.coursera.org/verify/X6LMNNMZBNSR>
13. Windows Server Management and Security:
<https://www.coursera.org/verify/68UMRTQVYJAP>
14. Operating Systems: Overview, Administration, and Security:
15. <https://coursera.org/verify/CDHE3SHAPYNN>
16. IT Fundamentals for Cybersecurity:
17. <https://coursera.org/verify/specialization/DKE8CSB96ELY>

AWARDS & HONORS

1. 2021 Universiti Brunei Graduate Scholarship (UGS) to pursue PhD in Computer Science (Digital Science)
2. 2020 YOK Scholarship to pursue a PhD in Computer Engineering at Erciyes University in Kayseri, Turkey. Accepted offer, reported, and later quit the program to join Universiti Brunei Darussalam.
3. 2014 Organization of Islamic Cooperation (OIC) Scholarship to pursue Master's degree at Islamic University of Technology (IUT), Dhaka, Bangladesh
4. 2010 Organization of Islamic Cooperation (OIC) Scholarship to pursue Bachelor's degree at Islamic University of Technology (IUT), Dhaka, Bangladesh

COMMUNITY SERVICE

1. Participated in the Official Launch of Uganda's ICT Intellectual Property Guidelines – 17th February 2025.
2. Participated in the Focus Group Discussion on fostering Collaboration Between Academia, Industry, and Policy in Uganda's ICT Sector – 22nd March 2024.
3. Trained IUIU staff on how to use the Turnitin plagiarism checking tool – 15th March 2023.
4. Presented a talk at the IUIU CS department-organized workshop on 'Industry certifications – enhancing employability in IT and CS', 3rd October 2021.

MEMBERSHIPS TO UNIVERSITY SENATE AND OTHERS

- I served on the Executive Board/Senate as the HoD of Computer Science from 2019 to 2022.
- I have served as a member of the faculty of science standing committee from 2019 to 2022

PROFESSIONAL MEMBERSHIPS

- Association for Computing Machinery (ACM. ID: 3874491): 2024 - Present
- Institute of Electrical and Electronics Engineers (IEEE. ID: 96871436): 2022 - Present
- IEEE GRSS (Geoscience and Remote Sensing Society) 2022 - Present
- IEEE Computer Society: 2022 – Present

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