Curriculum Vitae

Name: **Kassim Kalinaki, PhD**
DoB: **7th/04/1986**
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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)
- **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

Artificial Intelligence, Machine Learning, Deep Learning, Geoscience, Digital Image Processing, Remote Sensing, Computer Vision, 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. Senior Lecturer and Dean, School of Technology, Computing, and Engineering, Uganda Technology and Management University (UTAMU) – Jan 2025 – Present

As a **Senior Lecturer**, I am responsible for teaching a minimum of five course units per semester in accordance with UTAMU's workload requirements, planning and delivering lectures in line with approved quality assurance guidelines and timetables, and developing, uploading, and managing online courseware in compliance with UTAMU e-learning standards before course delivery. I also maintain student attendance records, provide all required learning and reading materials, facilitate group work and assignments, respond to student inquiries through the e-learning system, set, invigilate, and mark tests and examinations (including open-book and online/distance assessments), participate in School and University academic activities such as meetings, research, and outreach, supervise undergraduate and postgraduate students, engage in research and scholarly publications, and present academic papers at University-organized conferences.

As **Dean**, I am responsible for providing academic and strategic leadership to the School by developing and implementing academic policies, procedures, and plans aligned with the University's mission and strategic objectives. I ensure that departments deliver high-quality teaching, research, and service programs; promote

the assessment of student learning outcomes and the use of assessment data to enhance academic quality; convene and chair faculty meetings; and report to University management on the School's activities, needs, and achievements. In addition, I collaborate with other Deans through participation in the University Senate, monitor students' academic progress toward graduation and present eligible candidates to the School Board of Studies, contribute to University academic and administrative policy development through committee participation, supervise curriculum management and development, oversee the evaluation of academic and support staff in collaboration with Heads of Department, and perform any other duties assigned by my supervisor.

2. **Lecturer, Islamic University in Uganda – Main Campus, Mbale (Jan 2017 – December 2025)**
   - 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. 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.

3. **Cybersecurity Project Manager – SPI BN, Brunei Darussalam (September 2024 – November 2025 - Hybrid)**
   - 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.

4. **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)**
   - 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.

5. **Head of Department, Computer Science, Islamic University in Uganda (Aug 2019 – Dec 2021)**

   - 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.

6. **Assistant Lecturer (Part-Time), Kyambogo University, Uganda (Jan 2018 – Jun 2022)**

   - Taught and examined 'Introduction to Computer Science' for engineering departments

   (Civil, Mechanical, and Electrical).

7. **Teaching Assistant, Islamic University in Uganda (Jan 2014 – Dec 2014)**
   - Taught diploma-level courses including Digital Logic, Web Design, and E-commerce.
   - Supervised three diploma final-year projects.

INTERNAL POSTGRADUATE EXAMINATION
1. Developing A Framework for Mitigating the Impact of Cultural and Socioeconomic Factors on Cybersecurity Risk Management Practices in Small and Medium-Sized Enterprises (SMEs) in Uganda.
2. Developing a Framework to Mitigate the Impact of Cultural Norms on Fraudulent Behavior in Online Financial Transactions in Uganda.
3. E-health Technology Readiness Framework for Rural Health Centers: A Case of Sironko and Bulambuli Districts.
4. Analyzing the Technological and Policy Framework Challenges Affecting the Enforcement of the Computer Misuse Act in Uganda.

GRANTS & FUNDED PROJECTS
1. **Project Funded**: Artificial Intelligence Systems for Improved Maternal health in Uganda
   Grant Number: SUN-RIF/2022/30
   Funding Organization: Soroti University
   Project Duration: Nov/2023 – Dec/2024
   Project deliverables: 2 Articles published, Mobile and web app developed

2. **Project Funded:** Analyzing the role of Technology and its impact on Refugee Management in Uganda
   Grant Number: RCC/2024/GMR/001
   Funding Organization: Islamic University in Uganda
   Project Duration: April/2024 – April/2025

Project deliverables: 1 Article published

RESEARCH OUTPUT SUMMARY
Total Publications (as of September 2025) is 64 articles and 1 authored book in development):

- Journal Articles: 14
- Book Chapters: 39
- Conference Papers: 10
- 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. Aslam, Muhammad Muzamil; Shafik, Wasswa; Hidayatullah, Ahmad Fathan; **Kalinaki, Kassim**; Gul, Haj; Zakari, Rufai Yusuf; Tufail, Ali (2025). Intelligent Transportation Systems: A Critical Review of Integration of Cyber-physical Systems (CPS) and Industry 4.0. *Digital Communications and Networks*. Elsevier. **DOI:** https://doi.org/10.1016/j.dcan.2025.06.014

2. Rayun, S.M. Nafiz; Salam, Muhammad Abdus; Islam, Waziha; Firmansyah, Egi Arvian; **Kalinaki, Kassim** (2025). Unraveling the dynamics of mobile wallets in promoting cashless tourism in Bangladesh: Implementation of UTAUT2 model. *Journal of Hospitality and Tourism Technology*, Emerald. **DOI:** https://doi.org/10.1108/JHTT-04-2024-0222

3. Alfarisy, Gusti Ahmad Fanshuri; **Kalinaki, Kassim**; Malik, Owais Ahmed; Putra, Rizal Kusuma; Nuryono, Aninditya Anggari (2025). Open Plant Species Recognition using Vision Transformer Network and Top-K Logit Disparity Score. *Innovative Informatics and Artificial Intelligence Research*. **Link:** https://journal.itk.ac.id/index.php/IIAIR/article/view/1227

4. Adam A. Alli; **Kalinaki, Kassim** (2025) Analysis of The Role of Technology and Its Impact On Refugee Management In Uganda.
   Link: https://journals.iuiu.ac.ug/index.php/iujss/article/view/706

5. Shafik, Wasswa; **Kalinaki, Kassim**; Matinkhah, S. Mojtaba (2024). Technical Loopholes and Trends in Unmanned Aerial Vehicle Communication Systems. *International Journal of Technology (IJTech).*
   DOI: https://doi.org/10.14716/ijtech.v15i3.5644

6. Abubakari, Mussa Saidi; Zakaria, Gamal Abdul Nasir; Musa, Juraidah; **Kalinaki, Kassim** (2023). Assessing Digital Competence in Higher Education: A Gender Analysis of DigComp 2.1 Framework in Uganda. *SAGA: Journal of Technology and Information Systems*.
   DOI: https://doi.org/10.58905/saga.v1i4.210

7. Abubakari, Mussa S.; Zakaria, Gamal Abdul Nasir; Musa, Juraidah; **Kalinaki, Kassim** (2023). Validating the Digital Competence (Dig-Comp 2.1) Framework in Higher Education Using Confirmatory Factor Analysis: Non-Western Perspective. *Canadian Journal of Educational and Social Studies*.
   DOI: https://doi.org/10.53103/cjess.v3i6.184

8. **Kalinaki, Kassim**; Malik, Owais Ahmed; Lai, Daphne Teck Ching (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,* Elsevier.
   DOI: https://doi.org/10.1016/j.jag.2023.103453

9. Alicon, Auf Tumwebaze; **Kalinaki, Kassim** (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*, Emerald.
   DOI: https://doi.org/10.1108/HESWBL-02-2023-0047

10. **Kalinaki, Kassim**; Malik, Owais Ahmed; Lai, Daphne Teck Ching; Sukri, Rahayu Sukmaria; Abdul Wahab, Rodzay Bin Haji (2023). Spatial-temporal mapping of forest vegetation cover changes along highways in Brunei using deep learning techniques and Sentinel-2 images. *Ecological Informatics*, Elsevier.
    DOI: https://doi.org/10.1016/j.ecoinf.2023.102193

11. Alabdulatif, Abdullah; Thilakarathne, Navod Neranjan; **Kalinaki, Kassim** (2023). A Novel Cloud Enabled Access Control Model for Preserving the Security and Privacy of Medical Big Data. *Electronics*, MDPI.
DOI: https://doi.org/10.3390/electronics12122646

12. Haolader, Faruque A.; Hakim, Walusimbi; **Kalinaki, Kassim**; Mubarak, Hamisi Ramadhan (2017). A Comparative Study on the Academic Performance of Students in Bachelor's Degree of Information Technology Having Arts and Science Background in Uganda. *World Journal of Educational Research*.
DOI: https://doi.org/10.22158/wjer.v4n2p257

13. Haolader, Faruque A.; Cicioglu, Davut; **Kalinaki, Kassim** (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*.
Link: https://tvet-online.asia/8/haolader-etal/

14. **Kalinaki, Kassim** (2019). Massive Open Online Courses (MOOCs): Emerging Possibilities for Quality Education in Uganda. Published in the *Islamic University Multidisciplinary Journal (IUMJ)*.
Link: https://www.iuiu.ac.ug/journaladmin/iumj/ArticleFiles/44943.pdf

CONFERENCE ARTICLES

1. Nabukeera, Madinah; **Kalinaki, Kassim**; Matovu, Moses; Abdus Salam, Muhammad (2025). Evaluating 4G Network Reach and Fiber Node Proximity Across Uganda's Sub-Regions. *2nd International Conference on Machine Intelligence and Emerging Technologies (MIET 2024),* Springer.
DOI: https://doi.org/10.1007/978-981-96-2721-9_16

2. Ummusalaam, Alaphat; Ocen, Gilbert Gilbrays; Matovu, Davis; **Kalinaki, Kassim** (2025). A Cybercrime Incident Response Management and Recovery Framework for Kampala Metropolitan Area. *2025 IST-Africa Conference (IST-Africa),* IEEE Xplore.
DOI: https://doi.org/10.23919/IST-Africa67297.2025.11060538

3. **Kalinaki, Kassim**; Malik, Owais Ahmed; Lai, Daphne Teck Ching (2024). Forest Canopy Cover Mapping in High-Resolution Multisource Satellite Imagery Using Attention Recurrent Residual U-Net. *TENCON 2024 - IEEE Region 10 Conference,* IEEE Xplore.
DOI: https://doi.org/10.1109/TENCON61640.2024.10902705

4. Aslam, Muhammad Muzamil; Tufail, Ali; Apong, Rosyzie Anna Awg Haji Mohd; De Silva, Liyanage Chandratilak; **Kalinaki, Kassim**; Namoun, Abdallah (2024). ICS Deployment Optimization with Time Delay Reduction and Energy-Efficiency in IWSNs. ***2024 IEEE Wireless Communications and Networking Conference (WCNC)***, IEEE Xplore.
   DOI: https://doi.org/10.1109/WCNC57260.2024.10570507

5. Shafik, Wasswa; **Kalinaki, Kassim** (2024). Societal and Ethical Implications of Technology-Enhanced Agriculture and Healthcare: An African Context. ***2024 IST-Africa Conference***, IEEE Xplore.
   DOI: https://doi.org/10.23919/IST-Africa63983.2024.10569306

6. Chemisto, Musa; **Kalinaki, Kassim**; Oloya, Ivan Tim; Gutu, Tar JL; Egau, Percival; Kirya, Fred; Mwebesa, Darlius Bosco; Kisitu, Rashid (2024). ICT for Improved Maternal Healthcare in Uganda: A Systematic Literature Review. ***2024 IST-Africa Conference***, IEEE Xplore.
   DOI: https://doi.org/10.23919/IST-Africa63983.2024.10569857

7. Hidayatullah, Ahmad Fathan; **Kalinaki, Kassim**; Aslam, Muhammad Muzamil; Zakari, Rufai Yusuf; Shafik, Wasswa (2023). Fine-Tuning BERT-Based Models for Negative Content Identification on Indonesian Tweets. ***8th International Conference on Information Technology and Data Applications (ICTDA)***, IEEE Xplore.
   DOI: https://doi.org/10.1109/ICITDA60835.2023.10427046

8. Aslam, Muhammad Muzamil; Tufail, Ali; Ahmed, Zahoor; **Kalinaki, Kassim**; Nasir, Muhammad; Apong, Rosyzie Anna Awg Haji Mohd (2023). Spectrum Sharing and Consensus Performance of Vehicular Networks based on Deep Multi-User Reinforcement Learning. ***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)***, IEEE Xplore.
   DOI: https://doi.org/10.1109/DASC/PiCom/CBDCom/Cy59711.2023.10361294

9. Chemisto, Musa; Gutu, Tar JL; **Kalinaki, Kassim**; Mwebesa, Darlius Bosco; Egau, Percival; Fred, Kirya; Oloya, Ivan Tim; Rashid, Kisitu (2023). Artificial Intelligence for Improved Maternal Healthcare: A Systematic Literature Review. ***2023 IEEE AFRICON***, IEEE Xplore.
   DOI: https://doi.org/10.1109/AFRICON55910.2023.10293674

10. Shafik, Wasswa; Matinkhah, S Mojtaba; **Kalinaki, Kassim** (2023). An Intrusion Anomaly Detection Approach to Mitigate Sensor Attacks on Mechatronics Systems. ***International Conference on Mechanical, Automotive and Mechatronics Engineering (ICMAME)***.
    DOI: https://doi.org/10.53375/icmame.2023.113

BOOK CHAPTERS AND EDITED VOLUME CONTRIBUTIONS

1. **Kalinaki, Kassim**; Wasswa Shafik; Khairul Eahsun (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 and Francis**.**
    DOI: https://doi.org/10.1201/9781998511358-8

2. Nabukeera, Madinah; **Kalinaki, Kassim**; Moses, Matovu (2026). "Comparative Analysis of ICT Usage in Ugandan Ministries, Departments, Agencies, and Local Governments." In ***Global Perspectives on Digital Governance and National Transformation.***
    DOI: https://doi.org/10.4018/979-8-3373-8505-1.ch007

3. **Kalinaki, Kassim**; Nabukeera, Madinah; Matovu, Moses (2025). A Comparative Analysis of Generative AI Traffic Across Continents. In *Digital Synthetic Data and Outputs*. IGI Global.
    DOI: https://doi.org/10.4018/979-8-3373-2277-3.ch015

4. **Kalinaki, Kassim**; Malik, Owais. Ahmed; Alfarisy, Gusti. Ahmad., & Nassanga, Jalia. (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***. IGI Global.
    DOI: https://doi.org/10.4018/979-8-3693-8876-1.ch008

5. **Kalinaki, Kassim** (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***. Taylor and Francis.
    DOI: https://doi.org/10.1201/9781003483267-2

6. Zakari, Rufai Yusuf; **Kalinaki, Kassim;** Lawal, Zaharaddeen Karami; Abdulrazak, Najib (2025). Advances in Wildfire Spread Detection and Prediction: Techniques, Challenges, and Applications. In ***Artificial Intelligence and Computer Vision for Ecological Informatics***. Taylor and Francis
    DOI: http://doi.org/10.1201/9781003518778-2

7. Zakari, Rufai Yusuf; Lawal, Zaharaddeen Karami; **Kalinaki, Kassim;** Shafik, Wasswa (2025). Leveraging Remote Sensing for Agriculture Mapping: Techniques, Applications, and Future Directions. In *Artificial Intelligence and Computer Vision for Ecological Informatics*. Taylor and Francis
   DOI: https://doi.org/10.1201/9781003518778-3

8. Shafik, Wasswa; Zakari, Rufai Yusuf; **Kalinaki, Kassim** (2025). Ethical and Privacy Concerns in Bioinformatics and Cyber-Physical Systems Integration in Healthcare. In *AI-Driven Personalized Healthcare Solutions*, IGI Global.
   DOI: https://doi.org/10.4018/979-8-3693-7858-8.ch012

9. **Kalinaki, Kassim**; Kalinaki, Abubakar (2025). Big Data's Impact on Healthcare and Bioinformatics. In *Cyber-Physical Systems Security*, Springer.
   DOI: https://doi.org/10.1007/978-981-97-5734-3_2

10. **Kalinaki, Kassim** (2024). Ransomware Threat Mitigation Strategies for Protecting Critical Infrastructure Assets. In *Ransomware Evolution*, Taylor and Francis.
    DOI: https://doi.org/10.1201/9781003469506-10

11. Aslam, Muhammad Muzamil; **Kalinaki, Kassim**; Tufail, Ali; Naim, Abdul Ghani Haji; Khan, Madiha Zahir; Ali, Sajid (2024). Social Engineering Attacks in Industrial Internet of Things and Smart Industry: Detection and Prevention. In *Emerging Threats and Countermeasures in Cybersecurity*, Weily.
    DOI: https://doi.org/10.1002/9781394230600.ch17

12. **Kalinaki, Kassim** (2024). IoT and Blockchain Integration for Enhanced AI-Driven Business Intelligence. In *Intersection of AI and Business Intelligence in Data-Driven Decision-Making*, IGI Global.
    DOI: https://doi.org/10.4018/979-8-3693-5288-5.ch002

13. Hidayatullah, Ahmad Fathan; **Kalinaki, Kassim**; Gul, Haji; Zakari, Rufai Yusuf; Shafik, Wasswa (2024). Leveraging Natural Language Processing for Enhanced Text Analysis in Business Intelligence. In *Intersection of AI and Business Intelligence in Data-Driven Decision-Making*, IGI Global.
    DOI: https://doi.org/10.4018/979-8-3693-5288-5.ch006

14. **Kalinaki, Kassim**; Zakari, Rufai Yusuf; Shafik, Wasswa (2024). Emerging Trends in Cybersecurity Applications in Healthcare Systems. In *Cybersecurity in Emerging Healthcare Systems*, IET.

DOI: https://doi.org/10.1049/PBHE064E_ch4

15. Zakari, Rufai Yusuf; **Kalinaki, Kassim**; Lawal, Zaharaddeen Karami; Abdulrazak, Najib (2024). Federated Learning for Enhanced Cybersecurity in Modern Digital Healthcare Systems. In *Cybersecurity in Emerging Healthcare Systems*, IET. **DOI:** https://doi.org/10.1049/PBHE064E_ch19

16. Alli, Adam A.; **Kalinaki, Kassim**; Fahadi, Mugigayi; Ibrahim, Lwembawo (2024). Securing Industrial Internet of Things (IIoT): A Review of Technologies, Strategies, Challenges, and Future Trends. In *Artificial Intelligence Solutions for Cyber-Physical Systems*, Taylor and Francis. **DOI:** https://doi.org/10.1201/9781032694375-14

17. Salam, Muhammad Abdus; Rayun, S. M. Nafiz; Islam, Waziha; Hasan, Robiul; Firmansyah, Egi Arvian; **Kalinaki, Kassim** (2024). Consumer Engagement: Exploring Deepfake Applications in Consumer Marketing Communication. In *Navigating the World of Deepfake Technology*, IGI Global. **DOI:** https://doi.org/10.4018/979-8-3693-5298-4.ch020

18. Shafik, Wasswa; **Kalinaki, Kassim**; Fahim, Khairul Eahsun; Adam, Mumin (2024). Safeguarding Data Privacy and Security in Federated Learning Systems. In *Federated Deep Learning for Healthcare: A Practical Guide with Challenges and Opportunities*, Taylor and Francis. **DOI:** https://doi.org/10.1201/9781032694870-13

19. **Kalinaki, Kassim**; Malik, Owais Ahmed; Yahya, Umar; Lai, Daphne Teck Ching (2024). Federated Learning Challenges and Risks in Modern Digital Healthcare Systems. In *Federated Learning for Digital Healthcare Systems*, Elsevier. **DOI:** https://doi.org/10.1016/B978-0-443-13897-3.00004-7

20. **Kalinaki, Kassim**; Alli, Adam A.; Asuman, Baguma; Zakari, Rufai Yusuf (2024). Secure Federated Learning in the Internet of Health Things for Improved Patient Privacy and Data Security. In *Federated Learning for Digital Healthcare Systems*, Elsevier. **DOI:** https://doi.org/10.1016/B978-0-443-13897-3.00003-5

21. Zakari, Rufai Yusuf; Lawal, Zaharaddeen Karami; **Kalinaki, Kassim**; Maiwada, Umar Danjuma (2024). Time Series Forecasting Techniques for Climate Trend Prediction. In *Reshaping Environmental Science Through Machine Learning and IoT*, IGI Global. **DOI:** https://doi.org/10.4018/979-8-3693-2351-9.ch014

22. Aslam, Muhammad Muzamil; Zakari, Rufai Yusuf; Tufail, Ali; Ali, Sajid; **Kalinaki, Kassim**; Shafik, Wasswa (2024). Introduction to Industry's Fourth Revolution and Its Impacts on Healthcare. In ***Digital Transformation in Healthcare 5.0***, De Gruyter. **DOI:** https://doi.org/10.1515/9783111327853-002

23. Abubakari, Mussa Saidi; **Kalinaki, Kassim** (2024). Digital Competence in Islamic Education for Lifelong Learning: Preliminary Analysis Using DigComp 2.1 Framework. In ***Embracing Technological Advancements for Lifelong Learning***, IGI Global.
    DOI: https://doi.org/10.4018/979-8-3693-1410-4.ch001

24. Shafik, Wasswa; **Kalinaki, Kassim** (2024). Impact of 5G Security on Smart Cities' Internet of Things Implementation. In ***Digital Technologies in Modeling and Management: Insights in Education and Industry***, IGI Global.
    DOI: https://doi.org/10.4018/978-1-6684-9576-6.ch010

25. **Kalinaki, Kassim**; Shafik, Wasswa; Masha, Magezi; Alli, Adam A. (2024). A Review of Artificial Intelligence Techniques for Improved Cloud and IoT Security. In ***Emerging Technologies for Securing the Cloud and IoT***, IGI Global.
    DOI: https://doi.org/10.4018/979-8-3693-0766-3.ch002

26. Shafik, Wasswa; **Kalinaki, Kassim**; Zakari, Rufai Yusuf (2024). Blockchain's Motivation for IoT-Enabled Smart City. In ***Secure and Intelligent IoT-Enabled Smart Cities***, IGI Global.
    DOI: https://doi.org/10.4018/Q7Q-8-36Q3-2373-1.ch010

27. **Kalinaki, Kassim**; Acaru, Silviu Florin; Kugonza, Julius; Nsubuga, Ronald (2024). Towards an Intelligent Tomorrow: Machine Learning Enabling Sustainable Development. In ***Methodologies, Frameworks, and Applications of Machine Learning***, IGI Global.
    DOI: https://doi.org/10.4018/Q7Q-8-36Q3-1062-5.ch004

28. **Kalinaki, Kassim**; Shafik, Wasswa; Namuwaya, Sarah; Namuwaya, Sumaya (2024). Perspectives, Applications, Challenges, and Future Trends of IoT-Based Logistics. In ***Navigating Cyber Threats and Cybersecurity in the Logistics Industry***, IGI Global.
    DOI: https://doi.org/10.4018/Q7Q-8-36Q3-3816-2.ch005

29. Fahim, Khairul Eahsun; **Kalinaki, Kassim**; De Silva, L.C.; Yassin, Hayati (2024). The Role of Machine Learning in Improving Power Distribution Systems Resilience. In ***Future Modern Distribution Networks Resilience***, Elsevier.
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37. **Kalinaki, Kassim**; Namuwaya, Sumaya; Mwamini, Aminah; Namuwaya, Sarah (2023). Scaling Up Customer Support Using Artificial Intelligence and Machine Learning Techniques. In ***Contemporary Approaches of Digital Marketing and the Role of Machine Intelligence***, IGI Global.
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MAGAZINE ARTICLE

1. **Kalinaki, Kassim**; Cletah Shoko; Mary Immaculate Neh Fru; Arioluwa Aribisala; Mousmi Ajay Chaurasia; Sunni Kanta Prasad Kushwaha (2023). Career Development Activities for African Women, Students, and Young Professionals in Geoscience and Remote Sensing. In ***Geoscience and Remote Sensing Magazine***, IEEE Xplore.
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PROFESSIONAL CERTIFICATES

Certified Information Systems Security Professional (CISSP) – Certificate of Completion

Google Cybersecurity:
https://www.coursera.org/account/accomplishments/specialization/certificate/0GFPQCUC6BB5

Introduction to Cybersecurity Tools & Cyber Attacks:
https://www.coursera.org/verify/LUQEUWAHVJH8

Cybersecurity Roles, Processes & Operating System Security:
https://www.coursera.org/verify/CDHE3SHAPYNN

Cybersecurity Compliance Framework & System Administration:
https://www.coursera.org/verify/Y4YC9JEU3KBR

Network Security & Database Vulnerabilities:
https://www.coursera.org/verify/BYFY2N9655H4

Big Data, Artificial Intelligence, and Ethics:
https://www.coursera.org/verify/96YCC3A9BVNU

ICSI | Certified Network Security Specialist (CNSS):
https://ondemand.icsiglobal.com/certificates/jsa4tvuaxs

Cybersecurity and Mobility:
https://www.coursera.org/verify/TAUEWZ8A7B6R

Cybersecurity and the X-Factor:
https://www.coursera.org/verify/9UXRV84HMNPR

Cybersecurity and the Internet of Things:
https://www.coursera.org/verify/X6LMNNMZBNSR

Windows Server Management and Security:
https://www.coursera.org/verify/68UMRTQVYJAP

Operating Systems: Overview, Administration, and Security:
https://coursera.org/verify/CDHE3SHAPYNN

IT Fundamentals for Cybersecurity:
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.

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

REFERENCES

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