

Simeon Okechukwu Ajakwe, Ph.D.

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 Google Scholar

 LinkedIn

 ORCID: 0000-0002-6973-530X

 Portfolio

 Twitter Profile

Employment History

- 2020 - date  **Full Time Researcher & Scholar**, Networked Systems Laboratory, IT Convergence Engineering, Kumoh National Institute of Technology, Gumi, 39177, Korea.
- 2019 - 2021  **Assistant Lecturer**, Department of Software Engineering, School of Information and Communication Technology, Federal University of Technology, Owerri, Nigeria.
- 2018  **IT Project Manager**, Volunteer Experience, Christ for All Nations (CfAN) Organization
IT Project Manager-ICT Committee
- 2007 - 2019  **Assistant Chief Computer Technologist**, Department of Information Technology, Federal University of Technology, Owerri, Nigeria.

Education

- 2020- 2023  **Ph.D. IT Convergence Engineering**, School of Electronic Engineering, Kumoh National Institute of Technology, Gumi, Korea. **[Distinction]**
Thesis Title: *DC-BANDA: Decentralized Collaborative Blockchain Assisted Network for Drone Authentication*.
- 2013-2016  **M.Sc. Information Technology**, Federal University of Technology, Owerri, Nigeria. **[Distinction]**
Thesis Title: *Comparative Analysis of Inshore and Offshore Software Development Cost in Nigeria*
- 2006-2009  **BSc Computer Science**, Imo State University, Owerri, Nigeria. **[Second Class]**
- 2002-2004  **National Diploma Computer Science**, Institute of Management Technology, IMT, Enugu, Nigeria. **[Distinction]**

Research Publications

SCIE/ESCI/SCOPUS Indexed Articles [more publications on Google Scholar]

- 1 Ajakwe, S. O., Dong-Seong, & Lee, J. M. (2023). Radicalization of Airspace Security: Prospects and Botheration of Drone Defense Technology. *Journal of Intelligence, Conflict, and Warfare*, 6(2), 46.
 doi:<https://doi.org/10.21810/jicw.v6i1.5274>
- 2 Ajakwe, S. O., Ajakwe, I. U., Jun, T., Kim, D.-S., & Lee, J.-M. (2023). CIS-WQMS: Connectedintelligence smart water quality monitoring scheme. *Internet of Things*, 100800.
 doi:<https://doi.org/10.1016/j.iot.2023.100800>
- 3 Ajakwe, S. O., Ihekoronye, V. U., Kim, D.-S., & Lee, J.-M. (2023). ALIEN: Assisted Learning Invasive Encroachment Neutralization for Secured Drone Transportation System. *Sensors*, 23(3), 1233.
 doi:<https://doi.org/10.3390/s23031233>
- 4 Ajakwe, S. O., Kim, D.-S., & Lee, J. M. (2023). Drone Transportation System: Systematic Review ofSecurity Dynamics for Smart Mobility. *IEEE Internet of Things Journal*, 1-1.
 doi:[10.1109/JIOT.2023.3266843](https://doi.org/10.1109/JIOT.2023.3266843)
- 5 Ajakwe, S. O., Ihekoronye, V. U., Kim, D.-S., & Lee, J. M. (2022). DRONET: Multi-tasking frameworkfor real-time industrial facility aerial surveillance and safety. *Drones*, 6(2), 46.
 doi:<https://doi.org/10.3390/drones6020046>

- 6 Ajakwe, S. O., Ihekoronye, V. U., Mohtasin, G., Akter, R., Aouto, A., Kim, D. S., & Lee, J. M. (2022). VisioDECT Dataset: An Aerial Dataset for Scenario-Based Multi-Drone Detection and Identification. doi:10.21227/n27q-7e06
- 7 Ajakwe, S. O., Nwakanma, C. I., Kim, D.-S., & Lee, J.-M. (2022). Key Wearable Device Technologies Parameters for Innovative Healthcare Delivery in B5G Network: A Review. *IEEE Access*, 10, 49956–49974. doi:10.1109/ACCESS.2022.3173643

Other Indexed Journal Publications [more publications on Google Scholar]

- 1 Baldwin. C. Asiegbu, Ikenna V. Oluigbo, Ajakwe, S. O., and Gerald O. Onyike. (2022a) Crowdsourcing Software Development: Concept, Benefits and Adoption. In: International Journal of Scientific Research in Computer Science and Engineering 5 (3 June 2017), pp. 7-16. ISSN: 2347-2693. URL: https://www.isroset.org/journal/IJSRCSE/full_paper_view.php?paper_id=384.
- 2 Ajakwe, S. O., J. Ahaiwe, and J.N. Ndunagu (2016). "Framework for Knowledge Management Strategy for Competitive Advantage: Nigerian Industrial Production". In: FUTO Journal Series 2 (II 2016). URL: <https://www.futojnl.org/issues/type/volume-2-issue-2/technology-and-innovation>.
- 3 Ajakwe, S. O., and B.C. Asiegbu (2016). "Knowledge Management Paradigm and Partnership for Sustainable Innovative Entrepreneurial Development". In: International Journal of Gender Studies for Sustainable Development Goals 1.6 (2016)
- 4 Ajakwe, S. O., and B.C. Asiegbu (2016). "Comparative Analysis of Offshore and Inshore Software Development Cost". In: Journal of Research in National Development 13.2 (2015). URL: <https://www.ajol.info/index.php/jorind/issue/view/12587>.

Selected Conference Proceedings [more proceedings on Google Scholar]

- 1 Ajakwe, S. O., Ikechi Igboanusi Saviour, Kim, D.-S., & Lee, J.-M. (2023). BANDA: A Novel Blockchain-Assisted Network for Drone Authentication. In *14th IEEE International Conference on Ubiquitous and Future Networks, ICUFN 2023* (pp. 1–7).
- 2 Ajakwe, S. O., Ukamaka Ihekoronye, V., Kim, D.-S., & Lee, J.-M. (2022). Tractable Minacious Drones' Aerial Recognition and Safe-Channel Neutralization Scheme for Mission Critical Operations. In *2022 IEEE 27th international conference on emerging technologies and factory automation (ETFA)* (pp. 1–8). doi:10.1109/ETFA52439.2022.9921494.
- 3 Ajakwe, S. O., Kim, D.-S., & Lee, J.-M. (2023). CogNet: Cognitive Super Resolution Network for End-to-End Mobility Communication in MIMO Systems, Puducherry, India. In *1st IEEE international conference on signal processing, computation, electronics, power and telecommunication, ICONCEPT 2023* (pp. 1–6).
- 4 Ajakwe, S. O., Ihekoronye, V. U., Kim, D.-S., & Lee, J. M. (2022). AI-Trust In Intelligent Autonomous Decision-Centric Systems: Introspection Of Security Architectures. In: *2022 Korean Institute of Communication and Sciences Summer Conference. KICS. November 2022*; pp.648-649.
- 5 Ajakwe, S. O., Ihekoronye, V. U., Akter, R., Kim, D.-S., & Lee, J. M. (2022). Adaptive Drone Identification and Neutralization Scheme for Real-time military tactical operations. In *2022 international conference on information networking (ICOIN)* (pp. 380–384). doi:10.1109/ICOIN53446.2022.9687268
- 6 Ajakwe, S. O., Ukamaka Ihekoronye, V., Kim, D.-S., & Lee, J.-M. (2022). Simnet: UAV-integrated sensor nodes localization for communication intelligence in 6g networks. In *2022 27th asia pacific conference on communications (APCC)* (pp. 344–347). doi:10.1109/APCC55198.2022.9943785
- 7 Ihekoronye, V. U., Ajakwe, S. O., Kim, D.-S., & Lee, J. M. (2022b). Hierarchical intrusion detection system for secured military drone network: A perspicacious approach. In *Milcom 2022 - 2022 IEEE military communications conference (MILCOM)* (pp. 336–341). doi:10.1109/MILCOM55135.2022.10017532

- 8 Dini, M. A., Ajakwe, S. O., Kim, D.-S., Lee, J. M., & Jun, T. (2022). Octopus-inspired robot for underwater exploration in military internet of battle operations and surveillance. In *2022 13th international conference on information and communication technology convergence (ICTC)* (pp. 1900–1904). doi:10.1109/ICTC55196.2022.9952751
- 9 Ihekoronye, V. U., Ajakwe, S. O., Kim, D.-S., & Lee, J. M. (2022a). Aerial supervision of drones and other flying objects using convolutional neural networks. In *2022 international conference on artificial intelligence in information and communication (ICAICC)* (pp. 069–074). doi:10.1109/ICAICC54071.2022.9722702
- 10 Ajakwe, S. O., Akter, R., Kim, D. H., Mohatsin, G., Kim, D. S., & Lee, J. M. (2021, October). Anti-drone systems design: Safeguarding airspace through real-time trustworthy ai paradigm. In *Proceedings of the 2nd Korea Artificial Intelligence Conference (KAIC 2021), Da Nang, Vietnam* (pp. 27–28).
- 11 Ajakwe, S. O., Ukamaka Ihekoronye, V., Kim, D.-S., & Lee, J.-M. (2022). Tractable Minacious Drones' Aerial Recognition and Safe-Channel Neutralization Scheme for Mission Critical Operations. In *2022 ieee 27th international conference on emerging technologies and factory automation (ETFA)* (pp. 1–8). doi:10.1109/ETFA52439.2022.9921494
- 12 Ihekoronye, V. U., Ajakwe, S. O., Kim, D.-S., & Lee, J. M. (2022). Cyber Edge Intelligent Intrusion Detection Framework for UAV Network Based on Random Forest Algorithm, In *2022 13th International Conference on Information and Communication Technology Convergence (ICTC)*, (pp. 1242–1247). doi: 10.1109/ICTC55196.2022.9952400.

Submitted Articles

- 1 Ajakwe, S. O., Igboanusi Ikechi, I. S., Jung-Hyeon, K., Kim, D.-S., & Lee, J. M. (2023). iBANDA: Incognito blockchain-assisted network for drone authentication and logistics operations. In *IEEE Intelligent Transport Systems*.
- 2 Ajakwe, S. O., Okoloegbo, A.C., Kim, D.-S., & Lee, J. M. (2023). Galvanizing Airspace Networks and Security Through Trustworthy Aerial Autonomous Designs in an Era of Provocative Metaheuristics. Book Chapter in Springer Nature

Selected Seminars and Workshops

- 1 Ajakwe, S. O. (2022) *AI and Metaverse*. International Workshop on Metaverse. Kumoh National Institute of Technology, Gumi South Korea
- 2 Ajakwe, S. O. (2022) Blockchain-Based Certificate Transparency and Revocation Transparency. Networked System Laboratory, Kumoh National Institute of Technology, Gumi South Korea

Postgraduate Thesis

- 1 Ajakwe, S. O PhD. (2023). *DC-BANDA: Decentralized Collaborative Blockchain Assisted Network for Drone Authentication*. Department of IT Convergence Engineering, School of Electronics Engineering, Kumoh National Institute of Technology, Gumi, South Korea.
- 2 Ajakwe, S. O. MSc (2016). *Comparative Analysis of Software Development Cost for Inshore and Offshore Software Outsourcing*. Department of Information Technology, School of Information and communication Technology, Federal University of Technology, Owerri, Nigeria.

Patent and Copyrights

- 1 Ajakwe, S. O., Ihekoronye, V. U., Mohtasin, G., Akter, R., Aouto, A., Kim, D. S., & Lee, J. M. (2022). VisioDECT Dataset: An Aerial Dataset for Scenario-Based Multi-Drone Detection and Identification. On IEEE Dataport doi:10.21227/n27q-7e06

Skills

- | | |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Languages | ■ Strong reading, writing and speaking competencies for English, Igbo and Yoruba Languages. Fluent in Yoruba and Igbo. Introductory level at reading and writing Korean language. |
| Coding | ■ Python, Machine learning, Deep learning, ensemble learning, Matlab, R, SPSS, e-view, LATEX, ... |
| Soft Skill | ■ Academic research, Teaching, Training, Consultation, Grants and Proposal writing. |

Miscellaneous Experience

Awards and Achievements

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2023 | ■ Best Paper Award , International Conference on Signal Processing, Computation, Electronics, Power and Telecommunication, IConSCEPT 2023, IEEE Madras Section. |
| 2023 | ■ Excellent Research Paper Award , Networked System Laboratory, Department of IT Convergence Engineering |
| 2020 - 2023 | ■ Recipient, Grand ICT Doctoral Research Fellowship Award , School of Electronics Engineering, Kumoh National Institute of Technology, South Korea. |
| 2016-2016 | ■ Best Postgraduate Student Award , Department of Information Technology, Federal University of Technology, Owerri |
| 2014-2016 | ■ Best Postgraduate Student Award , Department of Information Technology, Federal University of Technology, Owerri |
| 2013 - 2016 | ■ Recipient, Study Fellowship Award , Federal University of Technology, Owerri |
| 2004-2004 | ■ Best Graduate Student Award , Department of Computer, Institute of Management and Technology |

Professional Affiliations

- MACM, Association of Computing Machinery, ACM.
- MIEEE, Institute of Electrical and Electronics Engineers, IEEE.
- MCPN, Member, Computer Professional Registration of Nigeria, CPN.
- MNIS, Nigerian Internet Society, NIS

Miscellaneous Experience (continued)

Contributions to University/Society

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| 2022-2023 | ■ Project Lead , Blockchain-Based Medical IoT Surgery Robot using Multimodal Data Fusion Approach |
| 2022-2022 | ■ Project Lead , Water Quality Monitoring System Project, NSL Lab, South Korea |
| 2021-2023 | ■ Project Lead , Anti-Drone Surveillance Project Development, NSL Lab, South Korea |

Research and Community Services

- **Guest Editor:** *Future Internet* Special Issue on Digital-Twin Enabled 6G: Trends and Technologies
- **Technical Committee:** *International Conference on Image Enhancement and Computer Vision*
- **Reviewer:** *IEEE International Conference on Signal Processing, Computation, Electronics, Reviewer 2023 Power and Telecommunication, (IConSCEPT), Puducherry, India*

- **Assistant Chair:** *International Conference on Information and Communication Technology, (ICTC)*, 2022, Jeju Island, South Korea
- **Reviewer:** *Journal of Communications and Network, (JCN)*
- **Reviewer:** *IEEE Intelligent Transport Systems, IEEE ITS*
- **Reviewer:** *Intelligent Automation and Soft Computing*
- **Reviewer:** *Computer Systems Science and Engineering, Journal*
- **Reviewer:** *Journal of Human Security, JoHS, Switzerland*
- **Member:** IEEE Standards Association Industry Connections on Neurotechnology for Brain-Machine Interface
- **Member:** IEEE Intelligent Transport System Working Group
- **Member:** IEEE Autonomous Driving Working Group
- **Member:** IEEE SA Space Systems Cybersecurity Working Group
- **Foreign Educator:** Gyeongsangbuk Ministry of Education, South Korea

Training & Certification

- 2022 ■ **Certified Peer Reviewer Course**, Elsevier Researcher Academy
- 2022 ■ **Introduction to Peer Review Course**, Web of Science Academy
- 2022 ■ **Fundamentals of Scientific Research Writing**, Elsevier Researcher Academy
- 2020 ■ **Artificial Intelligence Analyst**, Intelligent Business Machine (IBM)

References

Available on request

