

Judith Nkechinyere Njoku-Vowels, PhD

Distinguished Postdoctoral Fellow | AI-Enabled Systems | Digital Twins | Trustworthy AI
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Google Scholar: 1,350+ citations, h-index 14 | ORCID: 0000-0002-2294-9204

RESEARCH PROFILE

AI-enabled systems engineering for complex cyber-physical systems through digital twins, trustworthy artificial intelligence, model-informed machine learning, computer vision, explainable AI, and uncertainty quantification. Applications span transportation, energy systems, agriculture, and smart infrastructure.

EDUCATION

2025	PhD, IT Convergence Engineering Kumoh National Institute of Technology, South Korea Dissertation: BatteryMetrix: A User-Centric Digital Twin Framework for Predictive, Explainable, and Secure Battery Management Systems.
2021	MSc, Electronics Engineering Kumoh National Institute of Technology, South Korea Thesis: Improving Performance and Reliability of Wireless Communication Systems using Deep Learning.
2014	BEng, Petroleum Engineering Federal University of Technology, Owerri, Nigeria

PROFESSIONAL APPOINTMENTS

2025 to Present	Distinguished Postdoctoral Fellow University of Wyoming Research in robust autonomous perception, digital twins for smart infrastructure and rural communities, and trustworthy AI for cyber-physical systems.
2024	Visiting Research Scholar Michigan State University Digital twins and AI-driven decision support for climate-smart agriculture.
2022 to 2025	Graduate Research Assistant, PhD Kumoh National Institute of Technology Developed BatteryMetrix and BridgeSync; led multidisciplinary research in battery intelligence, transportation, security, and infrastructure.
2022 to 2024	Research Specialist and Supervisor Kyungpook National University and Michigan State University AI-enabled sensing, digital agriculture, international collaboration, and workforce development.
2019 to 2021	Graduate Research and Teaching Assistant, MSc Kumoh National Institute of Technology Machine learning for next-generation wireless communication systems.

SELECTED RESEARCH SYSTEMS

OmniRestore

Parameter-efficient universal adverse-weather image restoration for robust autonomous perception.

BatteryMetrix

Predictive, explainable, and secure digital twin framework for electric vehicle battery management.

PANDA

Digital twin and agent-based modeling framework for intelligent parking and urban mobility.

BridgeSync

Secure digital twin framework for intelligent bridge monitoring and sensor visualization.

GRANTS AND FUNDING

2023 to 2024	Research Team Lead, AI in Service Drive for Automotive Retail Dealerships Metamonkey AI and KIT Total funding: \$100,000.
2022 to 2024	Research Team Lead, Metaverse and Digital Twin for Battery Management Systems KIT Internal ICT Fund Total funding: \$50,000.
2019 to 2027	Funded Researcher, National Research Programs NRF Korea, MSIT Korea, IITP, and Brain Korea 21+ Contributed to laboratory-wide programs in ICT convergence, smart manufacturing, and talent development.

HONORS AND AWARDS

2023	Outstanding Paper Award International Conference on Maritime IT Convergence
2022 to 2025	Brain Korea 21+ PhD Scholarship Kumoh National Institute of Technology
2021	Excellent Publication Award Brain Korea and Kumoh National Institute of Technology
2019 to 2021	Brain Korea MSc Scholarship Kumoh National Institute of Technology

TEACHING, MENTORSHIP, AND SERVICE

2026 to Present	Project Research Mentor University of Wyoming Mentoring five research teams toward peer-reviewed publication across computer vision, mobility, and health sensing.
2023 to 2024	Internship Lead and Research Supervisor International remote research program Recruited and supervised 15 interns. Twelve contributed to peer-reviewed publications.
Ongoing	Conference and Journal Reviewer CVPR, ICML, NeurIPS, IEEE and interdisciplinary AI journals
2018 to Present	WomenTech Network Global Ambassador and Mentor Women in technology and STEM

TECHNICAL EXPERTISE

Programming: Python, MATLAB, R

AI and ML: PyTorch, TensorFlow, scikit-learn, physics-informed ML, SHAP, LIME, GradCAM

Modeling and Simulation: MATLAB/Simulink, PyBaMM, CARLA, Mesa, hardware-in-the-loop prototyping

Digital Twins and Visualization: Unreal Engine 5, CesiumJS, RealityCapture, Blender

Software and Deployment: FastAPI, REST APIs, MQTT, Docker, Git, edge deployment, HPC workflows

PUBLICATIONS

1. Developing Future Workforce Skills through Remote Practical Training

Judith Nkechinyere Njoku, Patience Chizoba Mba, Senorpe Asem-Hiablie, Daniel Dooyum Uyeh
Computers and Education Open, 2026.

2. OmniRestore: A Parameter-Efficient Framework for Universal Adverse-Weather Image Restoration

Judith Nkechinyere Njoku, Diksha Shukla
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2026.

3. PANDA: A Lightweight Digital Twin Framework for Smart Parking Management

Judith Nkechinyere Njoku, Diksha Shukla, Vinit Katariya, Md Ismail Hossain, Jason K. Hawes, Jian Gong, Jeffrey D. Hamerlinck
Proceedings of the International Conference on Computing in Civil Engineering (i3CE), 2026.

4. A Digital Twin Framework for Sensor Selection and Microclimate Monitoring in Greenhouses

Oreofeoluwa Akintan, Sodiq Babawale, Ayooluwaposi Olomo, Ridwan Adeyemo, Oluwaseun Opadotun, John Temitope Ajayi, Patience Chizoba Mba, **Judith Nkechinyere Njoku**, Andrew Chesang, Azlan Zahid, et al.
AgriEngineering, 2025.

5. Advanced Multimodal Prediction of Components of Livestock Feed Materials Using Knowledge Distillation

Owoeye Babatunde Oluwabukunmi, Akomolafe Ayobami Joseph, Miraculous Udurume, **Judith Nkechinyere Njoku**, Cosmas Ifeanyi Nwakanma, Senorpe Asem-Hiablie, Rammohan Mallipeddi, Tusan Park, Daniel Dooyum Uyeh
IEEE Transactions on AgriFood Electronics, 2025. DOI: 10.1109/TAFE.2025.3548949

6. BridgeSync: A Digital Twin Framework for Secure and Intelligent Smart Bridge Monitoring

Judith Nkechinyere Njoku, Kalibbala Jonathan Mukisa, Oroceo Paul Angelo, George Chidera Akor, Jae-Min Lee, Dong-Seong Kim
2025 Sixteenth International Conference on Ubiquitous and Future Networks (ICUFN), 2025.

7. Digital Twin and Metaverse-Enhanced Battery Management for Electric Vehicles

Judith Nkechinyere Njoku, Ebuka Chinaechetam Nkoro, Robin Matthew Medina, Paul Michael Custodio, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
High-Confidence Computing, 2025.

8. Enhancing Resilience in Specialty Crop Production in a Changing Climate through Smart Systems Adoption

Patience Chizoba Mba, **Judith Nkechinyere Njoku**, Daniel Dooyum Uyeh
Smart Agricultural Technology, 2025. DOI: 10.1016/j.atech.2025.100897

9. Explainable AI for Interpretable and Model-Agnostic Energy Consumption Prediction

Cosmas Ifeanyi Nwakanma, Love Allen Chijioke Ahakonye, **Judith Nkechinyere Njoku**, Prashnna Gyawali, Anurag K. Srivastava
2025 IEEE Industry Applications Society Annual Meeting (IAS), 2025. DOI: 10.1109/IAS62731.2025.11061571

10. HyBaTwin: Web-Based Hybrid Digital Twin Platform for Electric Vehicle Battery Capacity Estimation

Judith Nkechinyere Njoku, Anthony Uchenna Eneh, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
The Journal of Korean Institute of Communications and Information Sciences, 2025.

11. Leveraging Digital Twin Technology for Battery Management: A Case Study Review

Judith Nkechinyere Njoku, Ebuka Chinaechetam Nkoro, Robin Matthew Medina, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
IEEE Access, 2025.

12. MetaWatch: Trends, Challenges, and Future of Network Intrusion Detection in the Metaverse

Ebuka Chinaechetam Nkoro, **Judith Nkechinyere Njoku**, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
IEEE Internet of Things Journal, 2025. DOI: 10.1109/JIOT.2025.3568477

13. PureTwin: A Reliable Non-Fungible Digital Twin Framework for Battery Management Systems

Judith Nkechinyere Njoku, Joon Tae-Soo, Jae-Min Lee, Dong-Seong Kim
Proceedings of the 35th Joint Conference on Communication and Information (JCCI), 2025.

14. ThermaGuard: A Physics-Based Deep Learning Approach to Thermal Runaway in EV Batteries

Judith Nkechinyere Njoku, Love Allen Chijioke Ahakonye, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2025.

15. Towards the Adoption of Large Language Models for Interactive Digital Twin in Battery Management Systems

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
2025 Sixteenth International Conference on Ubiquitous and Future Networks (ICUFN), 2025.

16. Trustworthy Battery Management: A Digital Twin Approach Leveraging XAI and Blockchain

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

17. Wireless Communication Protocols for EV Digital Twin Battery Data Exchange

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Journal of Communications and Networks, 2025.

18. A Review of Intrusion Detection Techniques in MQTT-Enabled IoT Networks

Miracle Udurume, Judith Nkechinyere Njoku, Vladimir Shakhov, Insoo Koo
2024 15th International Conference on Information and Communication Technology Convergence (ICTC), 2024.

19. EL-Alert: An Explainable Lightweight AST Model for Military Situational Awareness and Surveillance

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
2024 15th International Conference on Information and Communication Technology Convergence (ICTC), 2024. DOI: 10.1109/ICTC62082.2024.10826893

20. Estimation of Physico-Chemical Properties of Soil Using Machine Learning

Patience Chizoba Mba, Opegbemi Matthias Busoye, John Temitope Ajayi, Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Senorpe Asem-Hiablie, Rammohan Mallipeddi, Tusan Park, Daniel Dooyum Uyeh
Smart Agricultural Technology, 2024.

21. Evaluating Regression Techniques for Service Advisor Performance Analysis in Automotive Dealerships

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Journal of Retailing and Consumer Services, 2024.

22. Explainable Data-Driven Digital Twins for Predicting Battery States in Electric Vehicles

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Dong-Seong Kim
IEEE Access, 2024. DOI: 10.1109/ACCESS.2024.3413075

23. Household Electricity Consumption Prediction: Comparing Neural Fitting Optimization Algorithms

Cosmas Ifeanyi Nwakanma, Love Allen Chijioke Ahakonye, Judith Nkechinyere Njoku, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2024.

24. Metaverse in Advanced Manufacturing: Background, Applications, Limitations, Open Issues & Future Directions

Gabriel Chukwunonso Amaizu, Judith Nkechinyere Njoku, Jae-Min Lee, Dong-Seong Kim
ICT Express, 2024.

25. ProphEn: Advanced Energy Forecasting for Korean Industries with Seasonal and Logistic Growth

Judith Nkechinyere Njoku, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2024.

26. Prophet-Based Time Series Model for Automotive Sales Prediction

Ebuka Chinaecheta Nkoro, Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2024.

27. SHAP-Based Explainable Model-in-the-Loop for Digital Twins in Battery Management Systems

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Dong-Seong Kim
Proceedings of the 34th Joint Conference on Communication and Information (JCCI), 2024.

28. TwinMil: Semantic Segmentation-Based Digital Twin Framework for Military Surveillance

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Dong-Seong Kim
The 3rd International Conference on Mobile, Military and Maritime IT Convergence (ICMIC), 2024.

29. Zero-Trust Marine Cyberdefense for IoT-Based Communications: An Explainable Approach

Ebuka Chinaecheta Nkoro, Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Electronics, 2024. DOI: 10.3390/electronics13020276

30. Automobile Service Upselling Feature Extraction Using Multiple Feature Importance Techniques

Paul Michael Custodio, Robin Matthew Medina, Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

31. Building a Metaverse for Transportation Systems: A Brief Review and Demonstration

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Dong-Seong Kim
2023 Fourteenth International Conference on Ubiquitous and Future Networks (ICUFN), 2023. DOI: 10.1109/ICUFN57995.2023.10199405

32. Cyber-Chameleon: A Moving Target Defence Mechanism for Metaverse Cyberattacks

Ebuka Chinaecheta Nkoro, Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Proceedings of the KICS Fall Conference, 2023.

33. Data Visualization for Digital Twin-Based BMS Using Unreal Engine

Robin Matthew Medina, Judith Nkechinyere Njoku, Paul Michael Custodio, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

34. Data-Driven Battery Digital Twin in Unreal Engine

Paul Michael Custodio, Robin Matthew Medina, Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

35. Enhancing Security and Accountability in Autonomous Vehicles through Robust Speaker Identification and Blockchain-Based Event Recording

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

36. Explainable Activity Detection and Classification: SHAP vs LIME

Cosmas Ifeanyi Nwakanma, Ebuka Chinaechetam Nkoro, Love Allen Chijioke Ahakonye, Goodness Oluchi Anyanwu, **Judith Nkechinyere Njoku**, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

37. Explainable Artificial Intelligence (XAI) for Intrusion Detection and Mitigation in Intelligent Connected Vehicles: A Review

Cosmas Ifeanyi Nwakanma, Love Allen Chijioke Ahakonye, **Judith Nkechinyere Njoku**, Jacinta Chioma Odirichukwu, Stanley Adiele Okolie, Chinebuli Uzundu, Christiana Chidimma Ndubuisi Nweke, Dong-Seong Kim

Applied Sciences, 2023. DOI: 10.3390/app13031252

38. Explainable Metaverse Ransomware Detection Using SHAP

Ebuka Chinaechetam Nkoro, **Judith Nkechinyere Njoku**, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

39. From Clusters to Conversions: Enhancing Automotive Dealership Performance with Big Data Insights and XAI

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the KICS Fall Conference, 2023.

40. Leveraging Feature Importance Techniques for Automotive Recommendation System

Robin Matthew Medina, Paul Michael Custodio, **Judith Nkechinyere Njoku**, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

41. Machine Learning and IoT Orchestration for Smart Farm Monitoring of Fall Armyworm (FAW)

Cosmas Ifeanyi Nwakanma, Kelechi Andrew Obiwundu, Rosemary Eberechi Keyagha, **Judith Nkechinyere Njoku**, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

42. MetaHate: Text-Based Hate Speech Detection for Metaverse Applications Using Deep Learning

Judith Nkechinyere Njoku, Anthony Uchenna Eneh, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

2023 14th International Conference on Information and Communication Technology Convergence (ICTC), 2023.

43. Metaverse and Digital Twin for BMS Using MATLAB and Unreal Engine

Judith Nkechinyere Njoku, Ebuka Chinaechetam Nkoro, Robin Matthew Medina, Paul Michael Custodio, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

44. Model Comparison and Selection for Battery Digital Twin Development Using PyBaMM

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the 33rd Joint Conference on Communication and Information (JCCI), 2023.

45. Multi-Feature Concatenation for Speech Dependent Automatic Speaker Identification in Maritime Autonomous Vehicles

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

2023 2nd International Conference on Maritime IT Convergence (ICMIC), 2023.

46. Optimized Lightweight LSTM Model for SoC Estimation on the Edge

Robin Matthew Medina, **Judith Nkechinyere Njoku**, Ebuka Chinaechetam Nkoro, Cosmas Ifeanyi Nwakanma, Gi-Hyeob Kwon, Jae-Min Lee, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2023.

47. Performance Comparison of Kalman Filtering Approaches for Digital Twin-Based Battery SoC Estimation

Ebuka Chinaechetam Nkoro, **Judith Nkechinyere Njoku**, Robin Matthew Medina, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the 33rd Joint Conference on Communication and Information (JCCI), 2023.

48. Prospects and Challenges of Metaverse Application in Data-Driven Intelligent Transportation Systems

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Gabriel Chukwunonso Amaizu, Dong-Seong Kim

IET Intelligent Transport Systems, 2023. DOI: 10.1049/itr2.12252

49. SHAP-Based Intrusion Detection Framework for Zero-Trust IoT Maritime Security

Ebuka Chinaechetam Nkoro, **Judith Nkechinyere Njoku**, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

2023 2nd International Conference on Maritime IT Convergence (ICMIC), 2023.

50. Analysis of Deep Neural Networks-Based Digital Twin for Lithium-Ion Batteries

Judith Nkechinyere Njoku, Robin Matthew Medina, Ebuka Chinaechetam Nkoro, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

51. Audio-Based Hate Speech Detection for the Metaverse Using CNN

Robin Matthew Medina, **Judith Nkechinyere Njoku**, Dong-Seong Kim

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

52. Deep Learning Based Data Fusion Methods for Multimodal Emotion Recognition

Judith Nkechinyere Njoku, Angela C. Caliwag, Wansu Lim, Sangho Kim, Hyunwoo Hwang, Jihwan Jung

The Journal of Korean Institute of Communications and Information Sciences, 2022.

53. Effective Industrial Internet of Things Vulnerability Detection Using Machine Learning

Cosmas Ifeanyi Nwakanma, Love Allen Chijioke Ahakonye, **Judith Nkechinyere Njoku**, Joy Eze, Dong-Seong Kim

2022 5th Information Technology for Education and Development (ITED), 2022.

54. Evaluation of Language Translator Module for Metaverse Virtual Assistant

Cosmas Ifeanyi Nwakanma, **Judith Nkechinyere Njoku**, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

55. Evaluation of Spectrograms for Keyword Spotting in Control of Autonomous Vehicles for the Metaverse

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

56. Failure Threshold-Aware Battery SoC Estimation Using Machine Learning

Cosmas Ifeanyi Nwakanma, Love Allen Chijioke Ahakonye, **Judith Nkechinyere Njoku**, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

57. Predicting Target Data Rates for Dynamic Spectrum Allocation Using Gaussian Process Regression

Judith Nkechinyere Njoku, Manuel Eugenio Morocho-Cayamcela, Angela Caliwag, Pei Xiao, Wansu Lim
ICT Express, 2022. DOI: 10.1016/j.icte.2021.08.011

58. Prospect and Industry Issues of Metaverse and Digital Twin Adoption in Nigerian Maritime

Cosmas Ifeanyi Nwakanma, **Judith Nkechinyere Njoku**, Chidinma Okafor, Dong-Seong Kim
Proceedings of the 1st International Conference on Maritime IT Convergence (ICMIC), 2022.

59. Real-Time Deep Learning-Based Scene Recognition Model for Metaverse Applications

Judith Nkechinyere Njoku, Gabriel Chukwunonso Amaizu, Jae-Min Lee, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

60. Real-Time QR Code License Plate Detection in Vehicles Using Pyzbar

Ebuka Chinaecheta Nkoro, **Judith Nkechinyere Njoku**, Dong-Seong Kim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2022.

61. Security in Metaverse: A Closer Look

Gabriel Chukwunonso Amaizu, **Judith Nkechinyere Njoku**, Jae-Min Lee, Dong-Seong Kim
Proceedings of the KICS Winter Conference, 2022.

62. State-of-the-Art Object Detectors for Vehicle, Pedestrian, and Traffic Sign Detection for Smart Parking Systems

Judith Nkechinyere Njoku, Goodness Oluchi Anyanwu, Ikechi Saviour Igboanusi, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim
2022 13th International Conference on Information and Communication Technology Convergence (ICTC), 2022. DOI: 10.1109/ICTC55196.2022.9952856

63. The Role of 5G Wireless Communication System in the Metaverse

Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma, Dong-Seong Kim
2022 27th Asia-Pacific Conference on Communications (APCC), 2022.

64. "Creativia" Metaverse Platform for Exhibition Experience

Cosmas Ifeanyi Nwakanma, **Judith Nkechinyere Njoku**, Jae-Young Jo, Chang-Hwan Lim, Dong-Seong Kim
2022 13th International Conference on Information and Communication Technology Convergence (ICTC), 2022.

65. BLER Performance Evaluation of an Enhanced Channel Autoencoder

Judith Nkechinyere Njoku, Manuel Eugenio Morocho-Cayamcela, Wansu Lim
Computer Communications, 2021. DOI: 10.1016/j.comcom.2021.05.026

66. CGDNet: Efficient Hybrid Deep Learning Model for Robust Automatic Modulation Recognition

Judith Nkechinyere Njoku, Manuel Eugenio Morocho-Cayamcela, Wansu Lim
IEEE Networking Letters, 2021. DOI: 10.1109/LNET.2021.3057637

67. Edge-Cloud Based Emotion Recognition System Using Facial Expressions and Voice

Ej Miguel Francisco Caliwag, **Judith Nkechinyere Njoku**, Miracle Udurume, Cheska Abarro, Angela Caliwag, Wansu Lim
Proceedings of the Ergonomics Society of Korea Conference, 2021.

68. Efficient Deep Learning Model for Data-Limited Modulation Recognition

Judith Nkechinyere Njoku, Angela Caliwag, Wansu Lim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2021.

69. Optimizing Spectrum Sharing in UAV-to-UAV Cellular Communications

Judith Nkechinyere Njoku, Angela Caliwag, Jonghun Kwon, Wansu Lim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2021.

70. Automatic Radar Waveform Recognition Using the Wigner-Ville Distribution and AlexNet-SVM

Judith Nkechinyere Njoku, Manuel Eugenio Morocho-Cayamcela, Wansu Lim
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2020.

71. Learning to Communicate with Autoencoders: Rethinking Wireless Systems with Deep Learning

Manuel Eugenio Morocho-Cayamcela, **Judith Nkechinyere Njoku**, Jeonghun Park, Wansu Lim
2020 International Conference on Artificial Intelligence in Information and Communication (ICAIIIC), 2020. DOI: 10.1109/ICAIIIC48513.2020.9065246

72. Li-Ion Battery Voltage Response Forecasting Based on LSTM with Kalman Filter Correction

Kumbayoni Lalu Muh, Angela C. Caliwag, Wansu Lim, **Judith Nkechinyere Njoku**
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2020.

73. Low-Cost HIL Simulation Platform for BMS Multi-Configuration Power Supply

Henar Mike O. Canilang, Angela C. Caliwag, Wansu Lim, **Judith Nkechinyere Njoku**
Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2020.

74. SOH and RUL Prediction of Lithium-Ion Batteries Based on LSTM with Ensemble Health Indicators

Muhammad Adib Kamali, Angela Caliwag, Wansu Lim, **Judith Nkechinyere Njoku**

Proceedings of the Korean Institute of Communications and Information Sciences (KICS) Conference, 2020.