Name **JAMES DZISI GADZE, PhD**

Position: Senior Lecturer

Nationality Ghanaian

Address Department of Telecommunication Engineering

Room 319 Caeser Building

Faculty of Electrical & Computer Engineering

College of Engineering

Kwame Nkrumah University of Science & Technology, Kumasi

Email: jdgadze@gmail.com, jdgadze.coe@knust.edu.gh

**Research Interests**

Machine- and Deep- Learning Applications in Communication Systems

Software-Defined Networking, RoF Based Fiber-Wireless Systems

IoT and Blockchain

**Education**

**a. Academic Degrees earned**

* Ph.D. Electrical Engineering
* MSc. Electrical Engineering
* BSc. (Hons) Electrical and Electronics Engineering

**b. Institutions Attended**

* Florida International University, Miami, USA.
* Tuskegee University, Tuskegee, USA.
* Kwame Nkrumah University of Science & Technology, Kumasi, Ghana.

**University Teaching Experience**

KNUST

1. **August 2016 – Present:** Snr Lecturer, Department of Telecommunication Engineering
2. **February 2011 – July 2016:** Lecturer, Department of Electrical/Electronic Engineering

Duties: Taught undergraduate and graduate courses in Communication & Networking

Systems. Conducted research and provided service to the University, National

and International Communities

**Courses Taught**

1. Undergraduate
   1. TE484: Network Planning
   2. TE461: Computer Application & Project Design
   3. TE481: Wireless Data Communication Networks
   4. TE472: Mobile and Satellite Communication Systems
   5. TE382: Data Communication Networks
   6. TE381: Optical Communications
   7. EE288: Electrical Measurement and Instrumentation
   8. COE475: Computer Networking
   9. COE456: Secure Network Systems
   10. COE472: Digital Signal Processing
   11. EE287: Circuit Theory
2. Graduate
   1. TE581: Computer Networks & Protocols
   2. TE562: Fiber Optic Transmission Systems

Before joining KNUST

1. **Tuskegee University, AL. USA**

August 2008 – January 2011: Assistant Professor,Department of Electrical Engineering

Duties: Taught undergraduate and graduate courses in Communication & Networking

Systems

1. **University of Bridgeport, CT. USA**

January 2008 – July 2008: Adjunct Asst Professor, Department of Electrical Engineering

Duties: Taught undergraduate and graduate courses in Communication & Networking

Systems

1. **Supervision and Assessment of student Project Works/Theses/Research**
   1. **Postgraduate (MPhil, MSc and PhD) Project Supervision**
      * 4 PhD
      * 16 MPhil/MSc
   2. **Undergraduate Project Supervision**
      * 100 BSc

**Industrial Experience**

1. Electricity Company of Ghana (ECG)
   1. Oct 1999 – July 2001: Operations Engineer
   2. July 1995 – Oct 1999: Customer Service Engineer
2. Volta River Authority (VRA)
   1. Sept 1990 – Aug 1991: Fields Engineer

**Selected Publications**

1. Gadze, J.D**.**; Akwafo R.; Agyekum, K.A.-P.; Opare, K.A.-B. (2021). A 100 Gbps OFDM-Based 28 GHz Millimeter-Wave Radio over Fiber Fronthaul System for 5G. *Optics*. 2(2):70–86. <https://doi.org/10.3390/opt2020008>
2. Nartey, C., Tchao, E.T., Gadze, J.D**.**, Keelson, E., Klogo, G.S., Kommey, B., Diawuo, K., 2021. On Blockchain and IoT Integration Platforms: Current Implementation Challenges and Future Perspectives. *Wireless Communications and Mobile Computing.* 2021:1–25. <https://doi.org/10.1155/2021/6672482>
3. Affum, E. A.; Agyekum, K.A.-P.; Gyampomah, C.A.; Ntiamoah-Sarpong, K.; Gadze, J.D.(2021). Smart Home Energy Management System Based on the Internet of Things (IoT). *International Journal of Advanced Computer Science and Applications (IJACSA)* 12(2):722-730 (Scopus Elsevier)
4. Gadze, J.D**.**; Bamfo-Asante, A.A.; Agyemang, J.O.; Nunoo- Mensah, H.; Opare, K.A.-B. (2021) An Investigation into the Application of Deep Learning in the Detection and Mitigation of DDOS Attack on SDN Controllers. *Technologies* 9(14):1-22, [*https://doi.org/10.3390/technologies901001*](https://doi.org/10.3390/technologies901001)
5. **Gadze, J.D.;** Obeng, K.A; Agyemang, J.O. (2020). Dynamic Bandwidth Utilization in Software Defined-Based Campus Networks: A Case Study of the Kwame Nkrumah University of Science and Technology. *International Journal of Advanced Research in Computer and Communication Engineering* 9(6):94-109, DOI:10.17148/IJARCCE.2020.9617.
6. **J.D. Gadze**; R. Akwafo; E.A. Affum (2020). Analysis of 75 GHz Millimeter Wave Radio over Fiber-Based Fronthaul System for Future Networks. *International Journal of Advanced Research in Computer and Communication Engineering* 9(4): 79-95, DOI:10.17148/IJARCCE.2020.9415
7. Nunoo-Mensah, H.; Boateng, K.O; Gadze, J.D.(2020).PSTRM: Privacy-Aware Sociopsychological Trust and Reputation Model for Wireless Sensor Networks. *International Journal of Peer-to-Peer Networking and Applications* 13(2): 1505 - 1525, DOI: 10.1007/s12083-020-00906-5**.** (Springer)
8. **James D. Gadze**; Kwame A. Agyekum; Stephen J. Nuagah; E.A. Affum (2019). Improved Propagation Models for LTE Path Loss Prediction in Urban & Suburban Ghana. *International Journal of Wireless & Mobile Networks (IJWMN)* 11(6):35-53. DOI:10.5121/ijwmn.2019.11603
9. Kotey, S.D.; Tchao, E. T.; Gadze, J.D.(2019).A Proposed DoS Detection Scheme for Mitigating DoS Attack Using Data Mining Techniques” *Computers*, 8(4), 85; <https://doi.org/10.3390/computers8040085>
10. Kotey, S.D.; Tchao, E. T.; Gadze, J.D. (2019). On Distributed Denial of Service Current Defense Schemes. *Technologies,* 7(1):1-24*;* DOI: 10.3390/technologies7010019

**Grantsmanship**

1. Collaborated with Prof. Axel Sikora of Offenburg University on African-German Cooperation within the framework of the call ‘Partnership for Sustainable Solutions with Sub-Saharan Africa and won BMBF – DAAD joint grant of **716,177.60 Euros** out of which **221, 000 Euros** will come directly to KNUST
2. Collaborated with Assistant Prof. Kyoung-Jae Lee of Hanbat National University, South Korea and got a **$133,500** research fund from the Korean Government for “Cooperative on Appropriate Technology for Low-Power Wireless Networks Based on Solar-Energy for Constructing Communication Infrastructures in Africa”