**Curriculum Vitae**

**(Short Version)**

**Mugabarigira Bien Aime**

mubienaime@gmail.com, +82-10-5964-8794

Department of Electrical and Computer Engineering, Sungkyunkwan University, Suwon, South Korea

* **Education and Training**

|  |  |  |
| --- | --- | --- |
| 09/2015-Now | Electrical and Computer Engineering, Sungkyunkwan University, Suwon, South Korea | Ph.D Candidate |
| 01/2009-11/2012 | Computer Science and Systems, National University of Rwanda, Huye, South Province, Rwanda | B.S. |

* **Previous Appointments**

|  |  |
| --- | --- |
| 2015-2021 | Teaching Assistant of following courses:   * March 2021 - June 2021: Infrastructure Networks and Security * March 2020 - December 2020: Introduction to Computer Networks * September 2015 - December 2015: Creative Design Project |
| 09/2012 – 08/2015 | High School Teacher, Parents High School (“Groupe Scolaire des parents” (GSP)), Huye, Southern Province, Rwanda |

* **Research Interests**

Internet of Things (IoT), Cyber-Physical Systems (CPS), Vehicular Networks,Vehiculat Ad-Hoc Networks (VANET), and Flying Ad-Hoc Networks.

* **Publication (Journal, Conference, Internet Standard, & Patent)**
* **Journal Papers**

1. Bien Aime Mugabarigira, Yiwen (Chris) Shen, Jaehoon (Paul) Jeong, Tae (Tom) Oh, and Han-You Jeong, ["Context-Aware Navigation Protocol for Safe Driving in Vehicular Cyber-Physical Systems"](https://mubienaime.github.io/publications/CNP-TITS-2023.pdf), [IEEE Transactions on Intelligent Transportation Systems](https://ieeexplore.ieee.org/document/9921182),[CNP supplemental material](https://mubienaime.github.io/publications/CNP-Appendix.pdf), Vol. 24, No. 1, pp. 128-138, January 2023.
2. Hamayoun Shahwani, Bien Aime Mugabarigira, Yiwen (Chris) Shen, Jaehoon (Paul) Jeong,and Jitae Shin, ["DAPF: Delay-Aware Packet Forwarding for Driving Safety and Efficiency in Vehicular Networks"](https://mubienaime.github.io/publications/DAPF-IET-2020.pdf), [IET Communications](https://digital-library.theiet.org/content/journals/10.1049/iet-com.2019.0427), January 2020.

* **Conference Papers**

1. Yiwen Shen, Bien Aime Mugabarigira, and Jaehoon (Paul) Jeong, ["A Deep Reinforcement Learning Framework for Connected Vehicle Route Planning in Urban Environments"](https://mubienaime.github.io/publications/KICS-2025-Winter-DRL-Route-Learning.pdf), KICS-2025-Winter, Pyeongchang, Korea, February 5 to February 7, 2025.
2. Bien Aime Mugabarigira, and Jaehoon (Paul) Jeong, ["Context-Aware Navigation Protocol for Safe Flying of Unmanned Aerial Vehicles"](https://mubienaime.github.io/publications/KICS2024-Winter-UAV-CNP.pdf), KICS-2024-Winter, Pyeongchang, Korea, January 31 to February 2, 2024.
3. Junhee Kwon, Bien Aime Mugabarigira, and Jaehoon (Paul) Jeong, ["Web-Based Car Control and Monitoring for Safe Driving of Autonomous Vehicles"](https://mubienaime.github.io/publications/ICOIN2022-Web-Based-Car-Control-And-Monitoring-For-Safe-Driving.pdf), [International Conference on Information Networking (ICOIN)](https://ieeexplore.ieee.org/abstract/document/9687175), Jeju, Korea, January 12-15, 2022.
4. Bien Aime Mugabarigira,Yiwen (Chris) Shen, Daegeun Choe, and Jaehoon (Paul) Jeong, ["Context-Aware Navigator for Road Safety in Vehicular Cyber-Physical Systems"](https://mubienaime.github.io/publications/ICCE-ASIA-CAN.pdf), The Third International Conference On Consumer Electronics (ICCE) Asia, Jeju, Korea, June 24-26, 2018.
5. Daegeun Choe, Yiwen (Chris) Shen, Bien Aime Mugabarigira, and Jaehoon (Paul) Jeong, ["Extensible Intelligent Simulator Architecture for the Development of Cyber-Physical Systems"](https://mubienaime.github.io/publications/ICEE-ASIA-Extensible-SimulManager.pdf), The Third International Conference On Consumer Electronics (ICCE) Asia, Jeju, Korea, June 24-26, 2018.
6. Hamayoun Shahwani, Bien Aime Mugabarigira, Jitae Shin, and Jaehoon Paul Jeong, ["An Effective Data Processing and Data Dissemination in Vehicular Networks"](https://mubienaime.github.io/publications/IMCOM2018-Data-Processing.pdf), [The 12nd ACM International Conference on Ubiquitous Information Management and Communication (IMCOM)](https://dl.acm.org/doi/10.1145/3164541.3164573), Langkawi, Malaysia, January 2018.
7. Bien Aime Mugabarigira, Yiwen (Chris) Shen, Jaehoon (Paul) Jeong, Tae (Tom) Oh, and Sang Hyuk Son, ["Design and Implementation of Vehicular Network Simulator for Data Forwarding Scheme Evaluation"](https://mubienaime.github.io/publications/DC2-2017-VANET-Simulation.pdf), [31th International Conference on Advanced Information Networking and Applications Workshops - Device Centric Cloud (DC2)](https://ieeexplore.ieee.org/abstract/document/7929705), Taipei, Taiwan, March 27-29, 2017.
8. Yiwen (Chris) Shen, Bien Aime Mugabarigira, and Jaehoon (Paul) Jeong, ["IPv6 Vehicular Communications over IEEE 802.11-OCB Wireless Link"](https://mubienaime.github.io/publications/KICS-2020-Winter-IPv6-Vehicular-Communications.pdf), KICS-2020-Winter, February 2020.

* **Internet Drafts**

1. Jaehoon Paul Jeong and Bien Aime Mugabarigira, ["Applicability of Computing-Aware Traffic Steering to Intelligent Transportation Systems"](https://datatracker.ietf.org/doc/draft-jeong-cats-its-use-cases/), draft-jeong-cats-its-use-cases-02, November 2024.
2. Jaehoon Paul Jeong, Bien Aime Mugabarigira, Yiwen (Chris) Shen, Alexandre Petrescu, and Sandra Cespedes, ["Basic Support for IPv6 Networks Operating over 5G Vehicle-to-Everything Communications"](https://datatracker.ietf.org/doc/draft-jeong-6man-ipv6-over-5g-v2x/), draft-jeong-6man-ipv6-over-5g-v2x, April 2024.
3. Jaehoon Paul Jeong, Bien Aime Mugabarigira, Yiwen (Chris) Shen, and Zeung Il Kim, ["Context-Aware Navigation Protocol for IP-Based Vehicular Networks"](https://datatracker.ietf.org/doc/draft-jeong-ipwave-context-aware-navigator/), draft-jeong-ipwave-context-aware-navigator, March 2024.

Jaehoon Paul Jeong, Bien Aime Mugabarigira, and Yiwen (Chris) Shen, ["Vehicular Mobility Management for IP-Based Vehicular Networks"](https://datatracker.ietf.org/doc/draft-jeong-ipwave-context-aware-navigator/), draft-jeong-ipwave-vehicular-mobility-management, February 2024.

* **Patents**

1. Jaehoon Paul Jeong, Bien Aime Mugabarigira, and Yiwen (Chris) Shen, ["Apparatus and method for providing basic support for ipv6 networks operating over 5g vehicle-to-everything communications"](https://patents.google.com/patent/US20240259342A1/en), US patent pending, August 2024.
2. Jaehoon Paul Jeong, Bien Aime Mugabarigira, and Yiwen (Chris) Shen, [" Context-aware navigation protocol for safe driving "](https://patents.google.com/patent/US11753033B2/en), US patent Granted, September 2023.