Dr. Valmik Tilwari
Assistant Professor
PhD (University of Malaya, Malaysia)
Department of Electronics & Communication Engineering
valmik@iiitg.ac.in
Joined the Institute in August 2023

About

Hello, welcome to my home page. I am an Assistant Professor in the Department of Electronics and Communication Engineering at Indian Institute of Information Technology, Guwahati. I joined IIITG in August 2023. I did Ph.D. from the University of Malaya, Kuala Lumpur, Malaysia in 2020 followed by Postdoctoral Research Fellow from Korea University, Seoul, South Korea. I work in the following research areas: routing algorithmic, Internet of Things, D2D communication, and quality of service enhancement for wireless networks, Machine Learning for wireless communication.

Research Interests

- Routing algorithmic
- Internet of Things
- D2D communication
- QoS enhancement for wireless networks
- Machine Learning for wireless communication

Teaching

At IIITG, I have taught the following courses: EC102 Electrical Circuit Analysis

Publication

Journal

Rathnayake, R. M. M. R., Madduma Wellalage Pasan Maduranga, Valmik Tilwari, and Maheshi B. Dissanayake., "RSSI and Machine Learning-Based Indoor Localization Systems for Smart Cities", Eng 4,no. 2, (2023), pages. 1468-1494,

Sandamini, Chamali, Madduma Wellalage Pasan Maduranga, Valmik Tilwari, Jamaiah Yahaya, Faizan Qamar, Quang Ngoc Nguyen, and Siti Rohana Ahmad Ibrahim, "A Review of Indoor Positioning Systems for UAV Localization with Machine Learning Algorithms.", Electronics 12,no. 7, (2023), pages. 1533,

Valmik Tilwari, Taewon Song, Sangheon Pack., "An Improved Routing Approach for Enhancing QoS Performance for D2D Communication in B5G Networks", Electronics 11,no. 24, (2022), pages. 4118.,

Maheswar, R., P. Jayarajan, A. Sampathkumar, G. R. Kanagachidambaresan, MHD Nour Hindia, Valmik Tilwari, Kaharudin Dimyati, Henry Ojukwu, and Iraj Sadegh Amiri, "CBPR: A cluster-based backpressure routing for the internet of things.", Wireless Personal Communications,118, (2021), pages. 3167-3185,

Malathy, S., P. Jayarajan, MHD Nour Hindia, Valmik Tilwari, Kaharudin Dimyati, Kamarul Ariffin Noordin, and Iraj Sadegh Amiri, "Routing constraints in the device-to-device communication for beyond IoT 5G networks: a review", Wireless Networks 27,no. 5, (2021), pages. 3207-3231,

Malathy, S., V. Porkodi, A. Sampathkumar, MHD Nour Hindia, Kaharudin Dimyati, Valmik Tilwari, Faizan Qamar, and Iraj Sadegh Amiri, "An optimal network coding based backpressure routing approach for massive IoT network", Wireless Networks,26, (2020), pages. 3657-3674,

Valmik Tilwari, R. Maheswar, P. Jayarajan, T. V. P. Sundararajan, MHD Nour Hindia, Kaharudin Dimyati, Henry Ojukwu, and Iraj Sadegh Amiri, "MCLMR: A multicriteria based multipath routing in the mobile ad hoc networks", Wireless Personal Communications,112, (2020), pages. 2461-2483,

Valmik Tilwari, Kaharudin Dimyati, MHD Nour Hindia, Tengku Faiz Bin Tengku Mohmed Noor Izam, Iraj Sadegh Amiri, "EMBLR: A high-performance optimal routing approach for D2D communications in large-scale IoT 5G network", Symmetry,12, (2020), pages. 438, .

Valmik Tilwari, Kaharudin Dimyati, MHD Nour Hindia, Tengku Faiz Bin Tengku Mohmed Noor Izam, Iraj Sadegh Amiri, "EMBLR: A high-performance optimal routing approach for D2D communications in large-scale IoT 5G network", Symmetry,12, (2020), pages. 438, .

Valmik Tilwari, MHD Nour Hindia, Kaharudin Dimyati, Faizan Qamar, A. Talip, and M. Sofian, "Contention window and residual battery aware multipath routing schemes in mobile ad-hoc networks", International Journal of Technology 10,no. 7, (2019), pages. 1376-1384,

Valmik Tilwari, Kaharudin Dimyati, MHD Nour Hindia, Anas Fattouh, and Iraj Sadegh Amiri, "Mobility, residual energy, and link quality aware multipath routing in MANETs with Q-learning algorithm", Applied Sciences 9,no. 8, (2019), pages. 1582,

Iraj Sadegh Amiri, J Prakash, M Balasaraswathi, V Sivasankaran, TVP Sundararajan, MHD Nour Hindia, Valmik Tilwari, Kaharudin Dimyati, Ojukwu Henry, "DABPR: a large-scale internet of things-based data aggregation back pressure routing for disaster management", Wireless Networks,26, (2019), pages. 2353–2374, .

Iraj Sadegh Amiri, J Prakash, M Balasaraswathi, V Sivasankaran, TVP Sundararajan, MHD Nour Hindia, Valmik Tilwari, Kaharudin Dimyati, Ojukwu Henry, "DABPR: a large-scale internet of things-based data aggregation back pressure routing for disaster management", Wireless Networks,26, (2019), pages. 2353–2374, .

Conference

Rathnayake, R. M. M. R., Madduma Wellalage Pasan Maduranga, Valmik Tilwari, and Maheshi B. Dissanayake, "RSSI and Machine Learning-Based Indoor Localization Systems for Smart Cities", Eng 4,no. 2, (2023), pages. 1468-1494,

Pethiyagoda, Amrnvb, Valmik Tilwari, M. W. P. Maduranga, T. L. Weerawardane, and D. M. R. Kulasekara, "A Survey On Deep Learning Approaches for Real-Time License Plate, Vehicle Type and Face Recognition", In 2023 1st International Conference on Innovations in High Speed Communication and Signal Processing (IHCSP), (2023), pages. 475-482, IEEE

Valmik Tilwari, and Sangheon Pack, "Autonomous 3D UAV Localization using Taylor Series linearized TDOA-based approach with Machine Learning Algorithms", In 2022 13th International Conference on Information and Communication Technology Convergence (ICTC), (2022), pages. 783-785, IEEE

Valmik Tilwari, Alaa Bani-Bakr, Faizan Qamar, MHD Nour Hindia, Dushantha Nalin K. Jayakody, and Rosilah Hassan, "Mobility and queue length aware routing approach for network stability and load balancing in MANET", In 2021 International conference on electrical engineering and informatics (ICEEI), (2021), pages. 1-5, IEEE

IIIT Guwahati

Bongora, Assam
Guwahati -781015
INDIA

0824 2474000

registrar@iiitg.ac.in

Our Campus

Gallery

Library

Health care center

Quick Links

Tender/NIQ

Academic Calendar

Semester Fee

Seat Distribution

Curriculum

Visitor's Information

Annual Report