TRAN DUC LE

Assistant Professor, University of Wisconsin-Stout

let@uwstout.edu

Website: https://tranducle.github.io
Linkedin: https://www.linkedin.com/in/tranducle/
Google Scholar: https://bit.ly/tranducleGgScholar

PERSONAL STATEMENT

I find myself driven by a genuine interest in improving cybersecurity measures. My background includes some work in areas like wireless and vehicular networks, malware analysis, and the application of AI/ML techniques. While still learning, I have shared what I know through teaching, using an approach that aims to engage students actively. I've also had the rewarding experience of guiding newer researchers, working on practical projects, and contributing to publications. While still early in my career, I am eager to continue growing as a researcher and educator. I aspire to further contribute to narrowing the divide between cybersecurity theory and real-world application. The chance to collaborate with colleagues and research groups on pressing cybersecurity challenges would be a true honor for me.

EDUCATION

Ph.D.   Saint-Petersburg, Russia
The Bonch-Bruevich Saint Petersburg State University of Telecommunications   *10/2014 - 9/2018*

- Major: Systems, networks and telecommunication devices (specializing in **Networking**)
- Thesis: *Mechanisms for ensuring QoS in unlicensed frequencies for high-density Wi-Fi networks*
- Supervisor: Assos. Prof. Olga Simonina

Degree of Engineer   Saint-Petersburg, Russia
The Bonch-Bruevich Saint Petersburg State University of Telecommunications   *9/2009 - 7/2014*

- Major: Multi-channel telecommunication systems
- Project title: *Analysis of interconnection in SDN technology*
- Supervisor: Assos. Prof. Olga Simonina

WORK EXPERIENCE

Assistant Professor   08/2024 – Present
University of Wisconsin-Stout   *Menomonie, WI, USA*
- Mathematics, Statistics & Computer Science Department

Postdoctoral Fellow   01/2023 – 07/2024
Université du Québec à Trois-Rivières   *Trois-Rivières, QC, Canada*
- Supervisors: Prof. Thang Le-Dinh & Prof. Sylvestre Uwizeyemungu
- Perform research on cybersecurity problems in the context of SMEs
- Develop and customize tools to respond to research questions
- Review literature and analyze data
- Present research results at meetings and engage in result publication
- Develop manuscripts for publications
- Conduct a systematic literature review using AI tools on Circular Economy in Organizations (from 01/2024 to 07/2024

- Current results: 05 were accepted papers, 02 are papers under review

Full-time Lecturer   12/2018 – 12/2022
University of Science and Technology - The University of Danang (DUT)   *Danang, Vietnam*

- Teaching, Researching, Lab instruction, Curriculum development
- Teaching Courses:
  - *Malware Analysis*
  - *Network Security*
  - *Penetration Testing*
  - *Computer Networking*
  - *Network Administration*
  - *Network Technologies*
- Supervise master students
  - Thesis: Ba Thien Tran. *Research and Implementation of Inter-Domain Routing Mechanisms in Software-Defined Networks (SDN)*, 2022.
  - Thesis: Nhat Anh Tran. *Current Status of Network Security at Da Nang University and Development of an Intrusion Detection System Testing Application*, 2021.
- Supervise undergraduate students
  - Supervising course projects
  - Supervising undergraduate capstone projects, with an average of 8 students guided per semester
- Guide undergraduate students in scientific research
  - Nghia Thinh Nguyen, Quang Tien Dam. *A Combination of PE-Header Features and Transformer Model for Ransomware Family Classification. In The Student Scientific Research Conference, University of Science and Technology, Danang, 2022.* (**Second Prize**)
  - Quang Tien Dam, Nghia Thinh Nguyen, Viet Trung Le. *Image-based Deep Learning Approach for Detection and Classification of Ransomware. In The Student Scientific Research Conference, DUT University, University of Science and Technology, Danang, 2021.* (**First Prize**)
- Participate in activities that support and connect businesses with faculty and students

NETSET-ITDUT LAB

Head of the Lab   From 2020
University of Science and Technology - The University of Danang   *Danang, Vietnam*

- Website: https://netsec-it.dut.udn.vn
- The idea for establishing this Lab originated in 2018, but the NetSec-ITDUT Lab officially became operational at the beginning of 2020. It mainly gathers members who are students in 3rd and 4th years involved in scientific research, specialized projects, and graduation projects under my guidance. In addition, the Lab also has members from other universities such as Posts and Telecommunications Institute of Technology (PTIT) (Ha Noi, Vietnam), Danang Architecture University (DAU) (Danang, Vietnam), SPBGUT (Saint-Petersburg, Russia), and engineers working at the R&D departments of some companies in Da Nang city.

RESEARCH INTERESTS

2014 – 2018

- Wireless communication technologies, including WLAN, Bluetooth, and Zigbee, specifically emphasizing Network Security in the 2.4 GHz band, Software Defined Networking (SDN).

2018 – 2020

- SDN and vehicular networks, notably FANET and VANET, Security in Mobile Adhoc Networks.

2020 – present

- Network Security, Malware Analysis, and Cybersecurity Analytics integrating Machine Learning, Artificial Intelligence to enhance security measures and detect threats, Cybersecurity in SMEs, Application of AI in Business.

GRANT & FUNDING

Science and Technology Research Grant (41/HĐKHCN/2021) 2021 – 2023
Funded by Quang Nam province, Vietnam *Quang Nam, Vietnam*

- Principal Investigator: Assoc. Prof. Thi Kim Thoa Pham
- Project's title: *Construction of a Database and Intelligent Management System for Biodiversity of Plant Communities in Special Forest Areas of Quang Nam Province*
- Funded Amount: $\sim$ 120,500.00 USD
- Role: main member, suggested ideas, network administration, server configuration, wrote the reports

Science and Technology Research Grant (36/HĐKHCN/2020) 2020 – 2023
Funded by Danang city, Vietnam *Danang, Vietnam*

- Principal Investigator: Dr. Van Hieu Nguyen
- Project's title: *Research on the Development of an Intelligent Biodiversity Management System for Plant Communities in Danang City*
- Funded Amount: $\sim$ 70,500.00 USD
- Role: main member, suggested ideas, network administration, server configuration, wrote the reports

Young Researcher Grant (T2021-02-06) 2020 – 2021
Funded by University of Science & Technology - The University of Danang *Danang, Vietnam*

- Principal Investigator: Dr. Tran Duc Le
- Project's title: *Malware spreading model for Wi-Fi networks*
- Funded Amount: $\sim$ 1500 USD
- Role: Leader, model development, conducted the experiments, and prepared the manuscript

Nafosted Grant (Code: 102.01-2019.322) 2019 – 2022
Funded by The National Foundation for Science and Technology Development *Vietnam*

- Principal Investigator: Dr. Tri Gia Nguyen
- Project's title: *AI-Driven Cyberattacks Detection for Future SDN-based Networks*
- Funded Amount: $\sim$ 40,800.00 USD
- Role: main member, suggested ideas, wrote the manuscripts

AWARDS

Certificate of Best Paper Award
- International Conference on Advanced Computing & Next-Generation Communication (ICACNGC 2022), Saint Petersburg, Russia.
- Paper: Tran Duc, Le, Truong Duy Dinh, Quoc Khanh Dang, Thi Le Quyen Nguyen and Ruslan Kirichek. *A Comparative Analysis of Blockchain-Based Authentication Models for IoT Networks.* (*to be published in SICC Springer*)

Certificate of Outstanding Paper Award
- The 22nd International Conference on Advanced Communications Technology (ICACT 2020), Pyeongchang, Korea.
- Paper: Kirichek, Ruslan, Truong Duy Dinh, Maxim Zakharov, Duc Tran Le, and Andrey Koucheryavy. *Positioning methods based on flying network for emergencies.* In *2020 22nd International Conference on Advanced Communication Technology (ICACT)*, pp. 245-250. IEEE, 2020.

B-rank award
- Potential scientific and technological activities - Number: 2645/QĐ-ĐHBK, 2019 - 2020, University of Science & Technology - The University of Danang, Danang, Vietnam

SERVICE

Journal Reviewer
- Journal of Network and Computer Applications
- Vietnam Journal of Computer Science
- The University of Danang - Journal of Science and Technology

Conference Reviewer
- CITA 2024, FDSE 2023, CITA 2023, ESREL 2022, CITA 2022, MaDaIN 2021, ICUMT 2021, BigComp 2021, INTHITEN 2020, MaDaIN 2020, IoT5GCYBER_CFC

Conference Organizing Committees
- MaDaIN 2021: The 2nd International Conference on Recent Advances in Machine Learning, Data Science, Intelligent Systems & Networking
- MaDaIN 2020: The 1st International Conference on Recent Advances in Machine Learning, Data Science, Intelligent Systems & Networking

Co-lead the Capture the Flag (CTF) team of the department
- CTF Team: Em0t3t

Organizing Students' Activities
- Organize extracurricular activities, community service, and sports for students

CERTIFICATIONS

Cisco Certified Network Associate (CCNA) 2024
Cisco

Certified in Cybersecurity (CC) 2024
ISC2

Introduction to Cybersecurity 2023
Cisco

Hands-on Introduction to Linux Commands and Shell Scripting 2023
IBM

Penetration Testing, Incident Response and Forensics 2023
IBM Skills Network

Splunk Search Expert 101 2023
Splunk

Machine Learning with Python 2023
IBM Skills Network

Tryhackme Advent of Cyber 2021 2021
Tryhackme

Academic English and Research Communication Skills 2021
University of Adelaide, Adelaide, Australia

Cyber Security & Awareness - Secondary Years 2021
University of Adelaide, Adelaide, Australia

PUBLICATIONS

Under review or accepted

[59] Le-Dinh, Thang, Vu, Manh Chien, **Le, Tran Duc**. *Integrating Artificial Intelligence and Machine Learning in Financial Services: A Systematic Literature Review. In The Eighth International Econometric Conference of Vietnam - ECONVN2025*, Ho Chi Minh City, Vietnam, January 13-15, 2025. (**Accepted**)

[58] Vu, Manh Chien, Le-Dinh, Thang, **Le, Tran Duc**, Nguyen, Thi Lien Huong. *A Conceptual Model for AI Adoption in Financial Decision-Making: Addressing the Unique Challenges of Small and Medium-Sized Enterprises. In The Eighth International Econometric Conference of Vietnam - ECONVN2025*, Ho Chi Minh City, Vietnam, January 13-15, 2025. (**Accepted**)

[57] Vu, Manh Chien, **Le, Tran Duc**, Le-Dinh, Thang. *Patterns of Digital Entrepreneurs: Integrating the Big Five and Meta Theories with Technological Advancements. In The 4th Global Conference on Entrepreneurship and Economy in an Era of Uncertainty (EEEU 24)*, Danang City, Vietnam, November 27-29, 2024. (**Accepted**)

[56] Le-Dinh, Thang, **Le, Tran Duc**, Ralyté, Jolita. *A Methodological Framework for Designing Human-Centered Artificial Intelligence Services. In The First International Workshop on AI Services and Applications (AISA'2024)*, 2024. (**Accepted**)

[55] Nguyen, Nang Hung Van, Do, Phuc Hao, **Le, Tran Duc**, Ngo, Van Uc, Dinh, Truong Duy, Pham, Van Dai. *Comparative Performance of Deep Learning Models in Detecting Invasive Ductal Carcinoma. In The International Conference on Big data, IoT, and Cloud computing (BIC 2024)*, 2024. (**Accepted**)

[54] Do, Phuc Hao, **Le, Tran Duc**, Berezkin, Aleksandr, Kirichek, Ruslan. *Reducing Latency in Hybrid Satellite-Terrestrial Networks through Lossless Network Traffic Compression Using Spatio-Temporal Graph Neural Networks. In 8th International Conference on Information, Control, and Communication Technologies (ICCT2024)*, 2024. (**Accepted**)

[53] Do, Phuc Hao, **Le, Tran Duc**, Berezkin, Aleksandr, Kirichek, Ruslan. *Advancing Satellite Communications: Multi-Objective Optimization with Genetic Algorithms. In 27th Distributed Computer and Communication Networks: Control, Computation, Communications (DCCN2024)*, 2024. (**Accepted**)

2024

[52] Tran, Thanh Liem, Do, Phuc Hao, Pham, Van Dai, Abdelhamied, A. Ateya, **Le, Tran Duc**. *Investigating the Effectiveness of Different GNN Models for IoT-Healthcare Systems Botnet Traffic Classification. Secure Health: A Guide to Cybersecurity for Healthcare Managers*, Taylor & Francis, 104–123, 2024.

[51] Le-Dinh, Thang, **Le, Tran Duc**, Uwizeyemungu, Sylvestre, Nguyen, Chan Nam. *Literature Review as a Service: A Human-Centered Artificial Intelligence Approach. In 8th International Conference on Innovation in Artificial Intelligence (ICIAI 2024)*, ACM, 52-58, 2024.

[50] Do, Phuc Hao, **Le, Tran Duc**, Vishnevsky, Vladimir, Berezkin, Aleksandr, Kirichek, Ruslan. *A Horizontal Federated Learning Approach to IoT Malware Traffic Detection: An Empirical Evaluation with N-BaIoT Dataset. ICACT-Transactions on Advanced Communications Technology (TACT)*, IEEE, Vol. 12, Issue 3, 1494-1506, 2024.

[49] **Le, Tran Duc**, Le-Dinh, Thang, Uwizeyemungu, Sylvestre. *Search Engine Optimization Poisoning: A Cybersecurity Threat Analysis and Mitigation Strategies for Small and Medium-sized Enterprises. Technology in Society*, vol. 76, 102470, 2024. (**SSCI, IF = 9.2**)

[48] Dam, Quang Tien, Le, Viet Trung, **Le, Tran Duc**, Uwizeyemungu, Sylvestre, Le-Dinh, Thang. *Visualizing Portable Executable Headers for Ransomware Detection: A Deep Learning-Based Approach. Journal of Universal Computer Science (J.UCS)*, 30(2), 262-286, 2024. (**SCIE, IF = 1.07**)

[47] **Le, Tran Duc**, Le-Dinh, Thang, Uwizeyemungu, Sylvestre, Doan, Xuan Hung, Dinh, Truong Duy. *SafeDocs: A Machine Learning-Based Framework for Malicious PDF Detection Tailored for SMEs. In The 2023 RIVF International Conference on Computing and Communication Technologies*, IEEE, 295-300, 2024.

[46] Do, Phuc Hao, Pham, Van Quan, **Le, Tran Duc**, Dinh, Truong Duy, Nguyen, Nang Hung Van, Pham, Minh Tuan. *Unveiling the Power of Pretrained Models for Neural Machine Translation in Vietnamese Language: A Comparative Analysis. In The 2023 RIVF International Conference on Computing and Communication Technologies*, IEEE, 452-457, 2024.

2023

[45] **Le, Tran Duc**, Dinh, Truong Duy, Dang, Quoc Khanh, Nguyen, Thi Le Quyen, Kirichek, Ruslan. *A Comparative Analysis of Blockchain-Based Authentication Models for IoT Networks. In EAI/Springer Innovations in Communication and Computing*, Springer, Cham., 227–240, 2023.

[44] **Le, Tran Duc**, Do, Phuc Hao, Nguyen, Duc Tai, Phung, Van Thang, Nguyen, Cong Danh, Dinh, Truong Duy. *Federated Learning for Linux Malware Detection: An Experimental Study. In EAI/Springer Innovations in Communication and Computing*, Springer, Cham., 63-75, 2023.

[43] Nguyen, Nang Hung Van, Do, Phuc Hao, Hoang, Van Nam, Borodko, Aleksandr, **Le, Tran Duc**. *Leveraging FFT and Hybrid EfficientNet for Enhanced Action Recognition in Video Sequences. In Proceedings of the 12th International Symposium on Information and Communication Technology,*

SoICT 2023. ACM, 32-39, 2023.

[42] Le, Viet Trung, Do, Phuc Hao, Uwizeyemungu, Sylvestre, Le-Dinh, Thang, **Le, Tran Duc**. *Utilizing InfoGAN and PE Header Features for Synthetic Ransomware Image Generation: An Experimental Study*. In Future Data and Security Engineering. Big Data, Security and Privacy, Smart City and Industry 4.0 Applications. FDSE 2023. Communications in Computer and Information Science, vol 1925. Springer, 226–239, 2023.

[41] **Le, Tran Duc**, Truong Duy Dinh, Phuoc Hoang Tan Nguyen, Ammar Muthanna, Ahmed A. Abd El-Latif. *Exploring Common Malware Persistence Techniques on Windows Operating Systems (OS) for Enhanced Cybersecurity Management: Detection and Mitigation Strategies*. Cybersecurity Management in Education Technologies: Risks and Countermeasures for Advancements in E-learning. Ed. Ahmed A. Abd El-Latif, Yassine Maleh, Mohammed A. EL-Affendi, Sadique Ahmad, Taylor & Francis Group, 107-149, 2023.

[40] Truong, Cong Khoa, Do, Phuc Hao, **Le, Tran Duc**. *A Comparative Analysis of E-mail Phishing Detection Methods: A Deep Learning Perspective*. Artificial Intelligence for Biometrics and Cybersecurity: Technology and applications, Institution of Engineering and Technology (IET), 149–174, 2023.

[39] Nguyen, Nghia Thinh, Ninh, Duy Khanh, Pham, Van Dai, **Le, Tran Duc**. *DTTP Model-A Deep Learning-Based Model for Detecting and Tracking Target Person*. *Lecture Notes in Networks and Systems*, vol. 752, Springer, 581-590, 2023.

[38] Dam, Tien Quang, Ninh, Duy Khanh, Le, Anh Ngoc, Pham, Van Dai, **Le, Tran Duc**. *Danaflood: A Solution for Scalable Urban Street Flood Sensing*. *Lecture Notes in Networks and Systems*, vol. 752, Springer, 546-555, 2023.

[37] **Le, Tran Duc**, Le, Ba Luong, Dinh, Truong Duy, Pham, Van Dai. *Classification of Ransomware Families Based on Hashing Techniques*. *Lecture Notes in Networks and Systems*, vol. 734, Springer, 37-49, 2023.

[36] Do, Phuc Hao, **Le, Tran Duc**, Berezkin, Aleksandr, Kirichek, Ruslan. *Graph Neural Networks for Traffic Classification in Satellite Communication Channels: A Comparative Analysis*. *Proceedings of Telecommunication Universities*, 9(3), 14-27, 2023.

[35] Do, Phuc Hao, **Le, Tran Duc**, Vishnevsky, Vladimir, Berezkin, Aleksandr, Kirichek, Ruslan. *A Horizontal Federated-Learning Model for Detecting Abnormal Traffic Generated by Malware in IoT Networks*. In *2023 25th International Conference on Advanced Communication Technology (ICACT)*, IEEE, 28-36.

2022

[34] Dinh, Truong Duy, **Le, Tran Duc**, Dang, Khanh Quoc, Vishnevsky, Vladimir, Kirichek, Ruslan. *Blockchain-Driven Hybrid Model for IoT Authentication*. *Lecture Notes in Computer Science*, vol. 13772, Springer, Cham, 557-573, 2022.

[33] **Le, Tran Duc**, Tran, Thong Trung, Dang, Khanh Quoc, Alkanhel, Reem, Muthanna, Ammar. *Malware spreading model for routers in Wi-Fi networks*. *IEEE Access*, 10, 61873-61891, 2022. (***SCIE Q1, IF = 3.476***)

[32] **Le, Tran Duc**, Dinh, Duy Truong, Nguyen, Quyen Le Thi, Tran, Liem Thanh. *A Basic Malware Analysis Process Based on FireEye Ecosystem*. *Webology*, 19(2), 2022.

[31] Nguyen, Tri Gia, Phan, Trung V, Hoang, Dinh Thai, Nguyen, Hai Hoang, **Le, Tran Duc**. *DeepPlace: Deep reinforcement learning for adaptive flow rule placement in software-defined IoT networks*. *Computer Communications*, 181, 156-163, 2022. (***SCIE Q1, IF = 6***)

2021

[30] Do, Phuc Hao, Dinh, Truong Duy, **Le, Tran Duc**, Myrova, Lyudmila, Kirichek, Ruslan. *An Efficient Feature Extraction Method for Attack Classification in IoT Networks*. In *2021 13th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT)*, IEEE, 194-199, 2021.

[29] **Le, Tran Duc**, Dinh, Truong Duy, Kirichek, Ruslan, Filin, Egor, Shestakov, Alexander. *A Combined Attack Scenario to Exploit the Join Procedure of LoRaWAN*. In *2021 13th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT)*, IEEE, 188-193, 2021.

[28] Nguyen, Hai Hoang, Nguyen, Tri Gia, Hoang, Dinh Thai, **Le, Tran Duc**, Phan, Trung V. *CARS: Dynamic Cyber-attack Reaction in SDN-based Networks with Q-learning*. In *2021 International Conference on Advanced Technologies for Communications (ATC)*, IEEE, 156-161, 2021.

[27] **Le, Tran Duc**, Dang, Khanh Quoc, Nguyen, Quyen Le Thi, Alhelaly, Soha, Muthanna, Ammar. *A Behavior-based Malware Spreading Model for Vehicle-to-Vehicle Communications in VANET Networks*. *Electronics*, 10(19), 2403, 2021. (***SCIE Q2, IF = 2.9***)

[26] Pham, Van Dai, Do, Phuc Hao, **Le, Tran Duc**, Kirichek, Ruslan. *LoRa Link Quality Estimation Based on Support Vector Machine*. *Lecture Notes in Computer Science*, vol. 13144, Springer, 92-102, 2021.

[25] Dinh, Truong Duy, Vishnevsky, Vladimir, Pham, Van Dai, **Le, Tran Duc**, Kirichek, Ruslan, Koucheryavy, Andrey. *Determination of Subscribers Coordinates using Flying Network for Emergencies*. In *2021 23rd International Conference on Advanced Communication Technology (ICACT)*, IEEE, 2021.

[24] **Le, Tran Duc**, Tai, Nguyen Duc, Luong, Le Ba, Pham, Van Dai, Kirichek, Ruslan. *Analysis of Network Security Issues in the Join Procedure of LoRaWAN*. In *24th International Conference on Distributed Computer and Communication Networks: Control, Computation, Communications*, 468-476, 2021.

[23] Pham, Van Dai, Do, Phuc Hao, **Le, Tran Duc**, Kirichek, Ruslan. *Evaluation of routing protocols for multi-hop communication in LPWAN*. In *Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 20th International Conference, NEW2AN 2020, and 13th Conference, ruSMART 2020, St. Petersburg, Russia, August 26–28, 2020, Proceedings, Part I 20*, vol. 12525, Springer, 255-266, 2021.

[22] Pham, Van Dai, Do, Phuc Hao, **Le, Tran Duc**, Kirichek, Ruslan. *A Method for Link Quality Estimation in LoRa Network based on Support Vector Machine*. *Distributed Computer and Communication Networks: Control, Computation, Communications: 24th International Conference*, 401-408, 2021.

2020

[21] **Le, Tran Duc**, Nguyen, Tri Gia, Tran, Thi Thu Thao. *The 1-Millisecond Challenge – Tactile Internet: From Concept to Standardization*. *Journal of Telecommunications and the Digital Economy*, 8(2), 56-93, 2020. (**Scopus Q3**)

[20] Kirichek, Ruslan, Dinh, Truong Duy, Pham, Van Dai, Zakharov, Maxim, **Le, Tran Duc**, Koucheryavy, Andrey. *Positioning Methods Based on Flying Network for Emergencies*. In *2020 22nd International Conference on Advanced Communication Technology (ICACT)*, IEEE, 2020.

[19] Pham, Van Dai, **Le, Tran Duc**, Kirichek, Ruslan, Shestakov, Alexander. *Research on Using the AODV Protocol for a LoRa Mesh Network*. *Lecture Notes in Computer Science*, vol. 12563, Springer, 149-160, 2020.

[18] Pham, Van Dai, **Le, Duc Tran**, Kirichek, Ruslan. *Evaluation of Routing Protocols for Multi-hop Communication in LPWAN*. In *Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 20th International Conference, NEW2AN 2020, and 13th Conference, ruSMART 2020, St. Petersburg, Russia, August 26–28, 2020, Proceedings, Part I 20*, Springer International Publishing, 255-266, 2020.

[17] **Le, Tran Duc**, Dao, Minh Huu, Nguyen, Quyen Le Thi. *Comparison of Machine Learning Algorithms for DDoS Attack Detection in SDN. Informatsionno-Upravliaiushchie Sistemy*, 3 (106), 59-70, 2020. (**Scopus Q4**)

2019

[16] Dinh, Truong Duy, **Le, Tran Duc**, Tran, Thi Thu Thao, Kirichek, Ruslan. *Flying Ad-hoc Network for Emergency Based on IEEE 802.11p Multichannel MAC Protocol*. In *International Conference on Distributed Computer and Communication Networks*, Springer, 479-494, 2019.

2018

[15] **Le, Tran Duc**, Nguyen, Tri Gia, Simonina, Olga, Buinevich, Mikhail, Vladyko, Andrei. *A Priority-Based Multichannel MAC to Support the Non-Safety Applications in SCH Interval at RSU in V2I Communication. Transport and Telecommunication*, 19(4), 269-283, 2018. (**Scopus Q3**)

[14] **Le, Tran Duc**, Simonina, Olga, Buinevich, Mikhail, Vladyko, Andrei. *A Multi-Criteria Priority-Based V2I Communication for Information Dissemination at RSU in VANET. JP Journal of Heat and Mass Transfer*, 2, 195-203, 2018. (**Scopus Q4**)

2017

[13] **Le, Tran Duc**. *The Multipolling Mechanism Based on the Prioritization for WLAN Network with Multiple Access Points*. In *2017 International Conference on Information Networking (ICOIN)*, IEEE, 24-29, 2017.

In Russian language

[12] До, Ф. Х., **Ле, Ч. Д.**, Зуйков, М. А., Берёзкин, А. А., Киричёк, Р. В. *Исследование предиктивной аналитики на базе микроконтроллера с применением методов TinyML. Инновационное приборостроение*, 2(2), 64-75, 2023.

(English: *[13] Do, Phuc Hao, **Le, Tran Duc**, Zuikov, M. A., Berezkin, A. A., Kirichek., R. V. Predictive analytics research based on a microcontroller using TinyML methods. Innovative Instrumentation, 2(2), 64-75, 2023.*)

[11] **Ле, Дык Чан**, Фам, Мау Хоа, Динь, ЧЗ, До, Хао Фук. *Применение алгоритмов машинного обучения для обнаружения вредоносных программ в операционной системе Windows с помощью PE-заголовка. Информационно-управляющие системы*, 4 (119), 44-57, 2022.

(English: *[12]**Le, Tran Duc**, Pham, Hoa Mau, Dinh, Truong Duy, Do, Phuc Hao. Applying machine learning algorithms for PE-header-based malware detection on the Windows operating system. Informatsionno-Upravliaiushchie Sistemy, (4), 44-57, 2022.*) (**Scopus Q4**)

[10] **Ле, Ч.Д.** *Анализ использования определения значения TXOP в IEEE 802.11e. 72-я СПбНТОРЭС*, 223-224.

(English: *[11] **Le, Tran Duc** Analysis of Utilizing the TXOP Definition in IEEE 802.11e. In the 72nd Russian Conference on Radiotechnics, Electronics, and Communications in Honor of A. S. Popov, 223-224., 2017.*)

[9] **Ле, Ч.Д.** *Поддержка QoS в WLAN: механизм конкуренции или механизм опроса. Перспект-*

вные технологии в средствах передачи информации – ПТСПИ-2017, 1, 140-146, 2017.

(English: *[10] **Le, Tran Duc** QoS Support in WLAN: Contention Mechanism or Polling Mechanism?. In the 12th International scientific conference on Perspective technologies in the information transfer means, 223-224, 2017.*)

[8] **Ле, Ч.Д.**, Симонина, О.А. *Механизм мультиопроса в высокоплотных сетях IEEE 802.11. Технологии и средства связи*, 1, 39-41, 2017.

(English: *[9] **Le, Tran Duc**, Simonina, Olga. The Mechanism of Multipolling in High-Density Networks IEEE 802.11. Proceedings of Telecommunication Universities, 1, 39-41, 2017.*)

[7] **Ле, Ч.Д.**, Симонина, О.А. *Механизм мультиопроса на основе приоритизации для WLAN с высокой плотностью устройств. Труды учебных заведений связи*, 3(1), 80-92, 2017.

(English: *[8] **Le, Tran Duc**, Simonina, Olga. The Multipolling mechanism based on the prioritization for WLAN in a high dense networks. Proceedings of Telecommunication Universities, 3(1), 80-92, 2017.*)

[6] **Ле, Чан Дык**. *Анализ производительности высокоплотной WLAN с многими точками доступа посредством моделирования в OPNET. T-Comm-Телекоммуникации и Транспорт*, 11(3), 56-61, 2017.

(English: *[7] **Le, Tran Duc**. Performance Analysis of the High Dense WLAN Network with Multiple Access Points Using OPENT Modeler. T-Comm, 11(3), 56-61, 2017.*)

[5] **Ле, Чан Дык** and Симонина, Ольга Александровна. *Механизм приоритезации для обеспечения минимизации задержки в условиях конкурентной среды в сетях Wi-Fi с плотным распределением устройств. Информационные системы и технологии*, 95(3), 99, 2016.

(English:*[6] **Le, Tran Duc**, Simonina, Olga. Prioritization Mechanism for Ensuring Delay Minimization in a Competitive Environment in Dense Device Deployment Wi-Fi Networks. Information Systems and Technologies, 95(3), 99, 2016.*)

[4] **Ле, Ч.Д.**, Симонина, О.А. *Анализ проблем обеспечения QoS в высокоплотной Wi-Fi сети. In 71-я СПбНТОРЭС*, 203-204, 2016.

(English: *[5] **Le, Tran Duc**, Simonina, Olga Analysis of QoS Provisioning Issues in High-Density Wi-Fi Network. In the 71st Russian Conference on Radiotechnics, Electronics, and Communications in Honor of A. S. Popov, 203-204, 2016. *)

[3] **Ле, Ч.Д.**, Симонина, О.А. *Использование SDN для обеспечения QoS в беспроводных сетях с высокой плотностью устройств. In Актуальные проблемы инфотелекоммуникаций в науке и образовании*, 446-450, 2016.

(English: *[4] **Le, Tran Duc**, Simonina, Olga. Utilization of SDN for Ensuring QoS in High-Density Wireless Networks. In Actual problems of infotelecommunications in science and education, 446-450, 2016. *)

[2] **Ле, Ч.Д.**, Симонина, ОА. *Организация приоритетного доступа в сетях IoT с высокой плотностью устройств и чувствительными к задержкам сервисами. Электросвязь*, 9, 63-67, 2016.

(English: *[3] **Le, Tran Duc**, Simonina, Olga. Enabling Priority Access in High-Density Internet of Things (IoT) Networks with Latency-Sensitive Services. Electrosvyaz, 9, 63-67, 2016. *)

[1] **Ле, Ч.Д.**, Симонина, ОА. *Анализ механизмов сосуществования беспроводных технологий в нелицензируемом диапазоне 2,4 ГГц. Актуальные проблемы инфотелекоммуникаций в науке и образовании*, 137-141, 2015.

(English: *[2] **Le, Tran Duc**, Simonina, Olga. Analysis of Coexistence Mechanisms of Wireless Technologies in the Unlicensed 2.4 GHz Spectrum Range. In Actual problems of infotelecommunications in science and education, 137-141, 2015. *)