Nhat-Minh Dzoan

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Education

Intelligent robotics research group — School of Mechanical Engineering, HUST

Research assistant — Dec 2022 - present

- Research area: Control strategy for underactuated robots, Fuzzy set theory, Hedge algebra theory
- Supervisor: Associate Professor Thi-Thoa Mac (thoa.macthi@hust.edu.vn)

Hanoi University of Science and Technology (HUST) — Hanoi, Vietnam

B.Eng. in Mechatronics Engineering (Advanced Programs) — Sep 2019 - Aug 2024

- First Class with Distinction (Expected graduate GPA: 3.91/4.00)

Work Experience

FPT AUTOMOTIVE — FPT Corporation, Hanoi, Vietnam

Summer internship — Jun 2022 - Aug 2022

- Topic: Embedded system in automotive industry

Awards

Best undergraduate dissertation — July 2024

- Thesis: "Research on a recursively formulated hedge algebra controller to control an inverted pendulum on a cart"
- Supervisor: Associate Professor Thi-Thoa Mac (thoa.macthi@hust.edu.vn)
- Reviewer: Doctor Hoang-Hiep Ly (hiep.lyhoang@hust.edu.vn)

Third prize at the Student Research Conference — Jun 2024

- Host: Hanoi University of Science and Technology
- Session: Applied Mathematics and Informatics

Second prize at the BK-V.IDEAS Contest — Jun 2024

- Subsidiary presentation award to the Student Research Conference
- Category: Applied natural science

Academic Scholarship for Excellent Student — Fall 2020 - Spring 2023

- Six-time recipient
- Semesterly assessment

Publications

1. **Nhat-Minh Dzoan**, Thi-Thoa Mac, Hoang-Hiep Ly, Xuan-Thuan Nguyen. "A Novel Hedge Algebra Controller with Recursive Semantic Values: RS-HAC and Application in Cart-pole system". Applied Soft Computing (submitted)
2. **Nhat-Minh Dzoan**, Thi-Thoa Mac, Tien-Dung Pham, Hoang-Hiep Ly. "Development of hybrid controller for an affordable cart-pole system". IEEE 11th International Conference on Computational Cybernetics and Cyber-Medical Systems (ICCC 2024), April 2024, Hanoi, Vietnam

Talks

11th IEEE International Conference on Computational Cybernetics and Cyber-Medical Systems — Hanoi, Vietnam, Apr 2024

Skills

Programming language:
- Matlab (mastery)
- Python (advanced)
- Embedded C/C++ (advanced)
- Assembly for x86 architecture (intermediate)
- VHDL (beginner)

Software and Framework:
- Matlab/Simulink (mastery)
- Ubuntu/Linux (advanced)
- ROS2 (advanced)
- SOLIDWORKS (intermediate)
- PyTorch (intermediate)
- Tensorflow (intermediate)
- Intel Quartus II (beginner)

Spoken language:
- Vietnamese (Native)
- English (C1)
- German (B1)

Specialization Certificates

Deep Learning — Coursera

Multi-course specialization — Sep 2022 - Nov 2022

- Verified at: click here
- Course Certificates Completed:
  1. Neural Networks and Deep Learning
  2. Structuring Machine Learning Projects
  3. Sequence Models
  4. Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
  5. Convolutional Neural Networks

References

Associate Professor Thi-Thoa Mac — School of Mechanical engineering, HUST
- Email: thoa.macthi@hust.edu.vn

Doctor Hoang-Hiep Ly — School of Mechanical engineering, HUST
- Email: hiep.lyhoang@hust.edu.vn