

TRAN HOANG ANH

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O. S. Bragstads Plass 2D ◊ 7034 Trondheim ◊ Norway

EDUCATION

Norwegian University of Science and Technology (NTNU)

April 2022 – present

PhD degree in Engineering Cybernetics

Supervisor: Prof. Tor Arne Johansen

Co-supervisor: Prof. Rudy. R. Negenborn

Sejong University

March 2020 – February 2022

Master degree in Intelligent Mechatronics Engineering

Member of Intelligent Navigation and Control Systems Lab (INCSL)

Supervisor: Prof. Jin Woo, Song

Hanoi University of Science and Technology

September 2014 – August 2019

Engineer degree in Control Engineering and Automation (Talent program),

School of Electrical Engineering

Supervisor: Prof. Phuong Nam, Dao

RESEARCH INTERESTS

Control of Unmanned Aerial Vehicles and Robotics systems.

Collision avoidance.

Adaptive control.

WORK EXPERIENCES

Collaborative collision avoidance for ships in inland waterways

April 2022 – present

ETN project AutoBarge

Trondheim, Norway

- Develop control algorithm for collision avoidance of autonomous inland vessels.
- Develop protocol for data exchanging between autonomous inland vessels.

Convergence Engineering for Intelligent Drone

2021 – February 2022

BrainKorea 21, National Research Foundation

Seoul, Korea

- Search and rescue operations by multiple autonomous vehicles (MAVs).
- Study on Source Seeking Algorithms for MAVs with Obstacle Avoidance.
- Experimental setups for control and navigation of MAVs.

The Competency Development Program for Industry Specialist

2020 – 2021

Korea Institute for Advancement of Technology

Seoul, Korea

- Design altitude controllers for drones devoted to precision landing tasks,
- Implement control algorithms in hardware flight controllers (CUAV, PX4),
- Setup and operate flight experiments in VICON System,
- Research toward autonomous landing for indoor quadrotor using vision estimation.

LANGUAGE & TECHNICAL SKILLS

English	Proficiency (IELTS 7.0 overall)
Programming Languages	Matlab, C/C++, Python
Software tools	Matlab, ROS, CVX

PUBLICATIONS

Tran, Hoang Anh, Nguyen, Thanh Binh, & Jin Woo Song (2021). "In-ground-effect model based adaptive altitude control of rotorcraft unmanned aerial vehicles," in *IEEE Robotics & Automation Letters*, vol 7, issue 2, 2022.

Tran, Hoang Anh, H. V. Do, and Jin Woo Song, "State Estimation for Polysolenoid Linear Motor based on an Adaptive Unscented Kalman Filter with Unknown Load and Measurement Noises," *20th International Conference on Control, Automation and Systems (ICCAS 2020)*, pp. 643-647, BEXCO, Busan, Korea, October 13-16, 2020.

Tran, Hoang Anh, Nguyen, A. T., Nguyen, T. B., Nam, D. P., & Vu, V. T. (2017, July), "An adaptive control law against time-varying delays in bilateral teleoperation systems," In *2017 International Conference on System Science and Engineering (ICSSE), Ho Chi Minh, Viet Nam* (pp. 520-524). *IEEE*.

REFERENCES

Professor Tor Arne, Johansen

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Supervisor of PhD program

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Professor Jin Woo, Song

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Supervisor of Master program

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- Founder of Intelligent Navigation and Control Systems Laboratory (iNCSL)
- Department of Intelligent Mechatronics Engineering and Convergence Engineering for Intelligent Drone, Sejong University, 209 Neungdong-ro, Gangjin-gu, Seoul 05006, Republic of Korea.

Professor Phuong Nam, Dao

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Supervisor of Engineer program

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- Department of Automatic Control, Ha Noi University of Science and Technology, 1 Dai Co Viet Road, Ha Noi, Viet Nam.