

VAN-THUAN MAI, M.sc.

Senior Research

📍 STS (Simulation to Solution) Engineering Inc., South Korea.

✉️ maivanthuan996@gmail.com

🌐 Webpage.com/thuanmai

🌐 linkedin.com/thuanmaivan

🐙 github.io/maivanthuan996

Educations

- 2020 – 2022 📖 **M.Sc. Civil Engineering and Naval Architecture, Changwon National University, South Korea.**
Ship Dynamic and Control Lab, Supervisor: **Prof. Yoon Hyeon Kyu**
Thesis: *"Influence of VCG on Maneuvering and Seakeeping for KVLCC2 in waves".*
- 2015 – 2020 📖 **B.Sc. Faculty of Transportation Mechanical Engineering, The University of Da Nang, University of Science and Technology, Da Nang City, Viet Nam.**
Thesis: *"Design Technological Process of Manufacturing Steel Fishing Boat KN-761-VN and Manufacturing with Composite Materials". with 5-year Engineering Program.*

Experiences

- 2023 – 📖 **Senior Research**, STS (Simulation to Solution) Engineering Inc., South Korea.
- 2022 – 2023 📖 **Research Assistant**, Department at Naval Architecture and Ocean Engineering, Inha University, South Korea.
Ships and Offshore Structures Engineering Lab, Supervisor: **Prof. Joonmo Choung.**
- Feb. – 2019 📖 **Exchange**, The Winter School Program at **Yokohama National University**, Yokohama city, Japan.
- 2018 – 2019 📖 **Internship**, Hai Son Shipbuilding and Repairing - Song Thu corporations.
- 2017 – 2019 📖 **Internship**, Engine and Ship Test Center - The University of Da Nang, University of Science and Technology.

Miscellaneous

Awards and Achievements

- 2021 📖 **Distinguished Paper Award**, presented at Asia Navigation Conference 2021, Shanghai, China.
[[certificate](#)] [[conference's link: page 41, C5-2](#)]
- 2020 📖 **Excellence Scholarship**, The University of Da Nang, University of Science and Technology.
- 2018 📖 **Awarded of Scientific research Competition**, by Headmaster and Department's leader, The University of Da Nang, University of Science and Technology, Viet Nam.
- 2017 📖 **Awarded Excellent Student**, in Youth Union Activities every year by the Headmaster, The University of Da Nang, University of Science and Technology, Viet Nam.

Research Interests

My research focus centers on:

- Numerical Simulation, Fluid-structure interaction
- Control Technology, Marine Hydrodynamics
- Machine Learning, and Deep Learning

Research Publications

Journal Articles

- 1 V. T. Mai, T. L. Mai, and H. K. Yoon, "Numerical investigation of motion response of a tanker on varying vertical center of gravities,**Under review**," *Journal of Ocean Engineering and Technology*,
- 2 T. T. D. Nguyen, V. T. Mai, S. Lee, and H. K. Yoon, "An experimental study on hydrodynamic forces of korea autonomous surface ship in various loading conditions," *Journal of Navigation and Port Research*, vol. 46 Issue 2, pp. 73–81, 2022. [URL: https://doi.org/10.5394/KINPR.2022.46.2.73](https://doi.org/10.5394/KINPR.2022.46.2.73).

Conference Proceedings

- 1 T. T. D. Nguyen, H. T. Vu, V. T. Mai, and H. K. Yoon, "Design of usv hull form for drone's taking off and landing and its performance test using hardware in the loop test," in *Korea Marine Science and Technology 2022 (KMST)*, ICC-Jeju, South Korea.
- 2 V. T. Mai, L. San, T. T. D. Nguyen, and H. K. Yoon, "An experimental study on effect on effect of loading conditions on hydrodynamic forces acting on a ship," in *Asian Navigation Conference 2021(ANC)*, Tianjin, China.

Projects

- 1 S. J. Park, V. T. Mai, and J. M. Choung, in "Calculating Long Term Assessment of an AI-based fishing boat safety design data platform by using CFD" *Inha University, South Korea, 2023*."
- 2 V. T. Mai and J. M. Choung, in "Lift Simulation for Ro-Ro Sewol Ferry Wreck Load out of Water Recovery Curve Analysis using ABAQUS" *Inha University in South Korea, 2023*.
- 3 V. T. Mai and J. M. Choung, in "Impact Damage Analysis the KDDX-Class Destroyer Collision Simulator for Rocks, Tankers, and Container Ships by ABAQUS" *Inha University, South Korea 2023*.
- 4 V. T. Mai and L. JaeBin, in "Machine learning-based soil corrosion rate prediction model through the optimization of input collecting big data", *South Korea, 2023*.
- 5 V. T. Mai and L. JaeBin, in "Analysis of 560 kWh vortex buffer tank CFD - Gasan Digital Center", *South Korea, 2023*.
- 6 V. T. Mai and L. JaeBin, in "ABAQUS Analysis for Earthquake-Resistance Design of Fire-Fighting Facilities", *South Korea, 2023*.
- 7 V. T. Mai and H. K. Yoon, in "An Experimental and Numerical Study of Secondary Wave Force on Shuttle Tanker using Ansys AQWA" *Changwon National University, South Korea, 2022*.

Skills

Languages	Python, C++, Matlab, LabVIEW, LaTeX.
Frameworks	Google Colab (cloud-based) PyTorch TensorFlow Matplotlib NumPy Pandas Docker Git, GitHub.
Plotting	Data visualization, OriginLab, Grapher.
Drawing	AutoCAD 2D-3D, Rhinoceros 3D.
Simulation	HyperWorks, Abaqus, Ansys AQWA, SolidWorks.

Courseworks

Updating...

1. Machine Learning Specialization, Stanford Uni., Instructors: Andrew Ng

[Machine Learning-certificate]

- Supervised Machine Learning: Regression and Classification
- Advanced Learning Algorithms
- Unsupervised Learning, Recommenders, Reinforcement Learning

2. Deep Learning Specialization, Stanford Uni., Instructors: Andrew Ng

[Deep Learning-certificate]

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

3. Deep Neural Networks with PyTorch, IBM AI Engineering Specialization

[PyTorch-IBM-certificate]

4. Laboratory Virtual Instrument Engineering Workbench - LabVIEW Programming

[LabVIEW-certificate-core1]

[LabVIEW-certificate-core2]

References

Prof. Hyeon Kyu Yoon

Professor, Supervisor at Ship Dynamic and Control Lab. Department of Naval Architecture and Marine Engineering.

Changwon National University.

📍 Building 56, Uichang-gu, Changwon-si, Gyeongsangnam-do, 51140, South Korea.

✉ hkyoon@changwon.ac.kr

☎ (+82 55-213-3683)

Dr. Phan Thanh Long

Doctor, Vice Dean, Transportation Mechanical Engineering.

The University of Da Nang, University of Science and Technology.

📍 Building C, 54 Nguyen Luong Bang street, Da Nang, Viet Nam

✉ ptlong@dut.udn.vn

☎ (+84 979-674-504)

Prof. Pham Quoc Thai

Professor, Dean, Transportation Mechanical Engineering.

The University of Da Nang, University of Science and Technology.

📍 Building C, 54 Nguyen Luong Bang street, Da Nang, Viet Nam

✉ pqthai@dut.udn.vn

☎ (+84 914-487-047)