

# VAN-THUAN MAI, M.sc.

## Senior Research

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

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## 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**
- 2015 – 2020    📖 **B.Sc. University of Science and Technology, The University of DaNang, Vietnam.**  
Faculty of Transportation Mechanical Engineering.

## Experiences

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

## Research Publications

### Journal Articles

- 1    **V. T. Mai**, T. L. Mai, and H. K. Yoon, “Numerical investigation of motion response of the tanker at varying vcgs, **‘Processing’**,”
- 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>.

### 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.

## Research Interests

**My research focus centers on:**




- Numerical Simulation
- Fluid-structure interaction
- Machine Learning
- Deep Learning

## Skills

|            |   |
|------------|---|
| Languages  | Python, C++, Matlab, LabVIEW, LaTeX.        |
| Frameworks | PyTorch, TensorFlow, NumPy, SciPy           |
| Drawing    | AutoCAD 2D-3D, Rhinoceros 3D.               |
| Simulation | Hyperworks, Abaqus, Ansys AQWA, SolidWorks. |

## Miscellaneous

### Awards and Achievements

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|------|--|
| 2021 |  <b>Distinguished Paper Award</b> , presented at Asia Navigation Conference 2021, Shanghai in China.  |
| 2018 |  <b>Awarded of Scientific research Competition</b> , by Headmaster and Department's leader, University of Science and Technology, The University of Danang. |
| 2017 |  <b>Awarded Excellent Student</b> , in Youth Union Activities every year by the Headmaster, University of Science and Technology, The University of Danang. |

## References

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### **Prof. Hyeon Kyu Yoon**

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

Changwon National University.

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### **Prof. Pham Quoc Thai**

**Professor**, Dean, Transportation Mechanical Engineering.

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### **Dr. Nguyen Tien Thua**

**Doctor**, Lecture, Naval Architecture and Marine Engineering.

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