Dai-Nhan Le, M.Eng.

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Education

2024 – 2026   🔖 **M.Eng. Structural Engineering, Chulalongkorn University** in Bangkok, Thailand.
GPA: 3.75/4.00
Thesis title: *Advanced Deep Learning Approaches For Predicting The Structural Response Of Unstiffened Steel Plate Girders Under Patch Loading.*

2018 – 2023   🔖 **B.Sc. Civil Engineering, Hanoi University of Civil Engineering** in Hanoi, Vietnam.
GPA: 3.34/4.00
Thesis title: *Design structure and construction method of the multi-storey building: Dreamland Plaza.*

Research Publications

Journal Articles

1. **D.-N. Le**, Q.-V. Vu, T.-H. Pham, V.-T. Huynh, and S. Tangaramvong, "CurveSPG: An efficient framework for generating structural curves of the unstiffened steel plate girder under patch loading based on modified denoise diffusion model," *Thin-Walled Structures*, vol. 216, p. 113 739, 2025, ISSN: 0263-8231. 🔗 DOI: https://doi.org/10.1016/j.tws.2025.113739

2. **D.-N. Le**, T.-H. Pham, T.-D. Pham, Z. Kong, G. Papazafeiropoulos, and Q.-V. Vu, "An efficient long short-term memory-based model for prediction of the load-displacement curve of concrete-filled double-skin steel tubular columns," *Construction and Building Materials*, vol. 449, p. 138 122, 2024, ISSN: 0950-0618. 🔗 DOI: https://doi.org/10.1016/j.conbuildmat.2024.138122

3. **D.-N. Le**, T.-H. Pham, G. Papazafeiropoulos, Z. Kong, V.-L. Tran, and Q.-V. Vu, "Hybrid machine learning with bayesian optimization methods for prediction of patch load resistance of unstiffened plate girders," *Probabilistic Engineering Mechanics*, vol. 76, p. 103 624, 2024, ISSN: 0266-8920. 🔗 DOI: https://doi.org/10.1016/j.probengmech.2024.103624

4. **D.-N. Le**, Q.-V. Vu, T.-H. Pham, G. Papazafeiropoulos, and S. Tangaramvong, "StressSPG: Stress distribution prediction of unstiffened steel plate girders under patch loading using Kolmogorov-Arnold network and Super-Resolution approach," *Engineering Structures*, 2025, (Submitted).

5. Q.-V. Vu, **D.-N. Le**, T.-D. Pham, W. Gao, and S. Tangaramvong, "An efficient procedure for prediction of the load-displacement curve of CFDST columns," *Journal of Constructional Steel Research*, vol. 224, p. 109 113, 2025, ISSN: 0143-974X. 🔗 DOI: https://doi.org/10.1016/j.jcsr.2024.109113

6. Z. Kong, **D.-N. Le**, T.-H. Pham, K. Poologanathan, G. Papazafeiropoulos, and Q.-V. Vu, "Hybrid machine learning with optimization algorithm and resampling methods for patch load resistance prediction of unstiffened and stiffened plate girders," *Expert Systems with Applications*, vol. 249, p. 123 806, 2024, ISSN: 0957-4174. 🔗 DOI: https://doi.org/10.1016/j.eswa.2024.123806

7. Q. Vu, V. Pham, **D. Le**, Z. Kong, G. Papazafeiropoulos, and V. Pham, "Hybrid machine learning with HHO method for estimating ultimate shear strength of both rectangular and circular RC columns," English, *Steel and Composite Structures*, vol. 52, no. 2, pp. 145–163, Jul. 2024. 🔗 DOI: 10.12989/scs.2024.52.2.145

8. Q.-V. Vu, **D.-N. Le**, T.-H. Pham, W. Gao, and S. Tangaramvong, "Hybrid machine learning with moth-flame optimization methods for strength prediction of CFDST columns under compression," *Steel and Composite Structures*, vol. 51, no. 6, p. 679, 2024. 🔗 DOI: 10.12989/scs.2024.51.6.679

9. D.-K. Thai, **D.-N. Le**, Q. H. Doan, T.-H. Pham, and D.-N. Nguyen, "A hybrid model for classifying the impact damage modes of fiber reinforced concrete panels based on XGBoost and Horse Herd Optimization algorithm," *Structures*, vol. 60, p. 105 872, 2024. 🔗 DOI: https://doi.org/10.1016/j.istruc.2024.105872

10. D.-K. Thai, **D.-N. Le**, Q. Hoan Doan, T.-H. Pham, and D.-N. Nguyen, "Classification models for impact damage of fiber reinforced concrete panels using Tree-based learning algorithms," *Structures*, vol. 53, pp. 119–131, 2023. 🔗 DOI: https://doi.org/10.1016/j.istruc.2023.04.062

11. T.-H. Pham, **D.-N. Le**, V.-T. Pham, Z. Kong, and Q.-V. Vu, "Efficient data-driven models for prediction of Ultimate Shear Strength of Reinforced Concrete Columns," *Steel and Composite Structures*, 2025, (Accepted).

12. Q.-V. Vu, **D.-N. Le**, T.-H. Pham, W. Gao, Z. Kong, and S. Tangaramvong, "Efficient design approach for Concrete-Filled Double-Skin Steel Tubular columns under axial loads," *Structures*, 2025, (Submitted).

Conference Proceedings

1. **D.-N. Le**, Q.-V. Vu, and S. Tangaramvong, "An efficient deep learning approach for predicting the ultimate load and maximum lateral web deformation of unstiffened steel plate girders under patch loading," in *Proceeding of The 30th National Convention on Civil Engineering*, vol. 30, 2025.

Skills

Languages	Vietnamese and English (🔗 IELTS 7.0 overall)
Coding	Python, MATLAB, VBA, LaTeX, …
Structural analysis	ABAQUS, Etabs, Robot Structural Analysis, Adapt Builder, …
Shop drawing	Revit, Tekla
Misc.	Academic research, Deploy Machine Learning models, Willing to work overtime with high pressure, work independently and in a team.

Miscellaneous Experience

Awards and Achievements

2024-2026	**ASEAN/ NON-ASEAN scholarship program for master degree**, Chulalongkorn University, Thailand.
2023	**The National Student Research Contest - Third prize**, Ministry of Education and Training, Vietnam
2022	**The Undergraduate Student Research Contest - First prize**, Hanoi University of Civil Engineering, Vietnam
2018-2023	**The scholarship for students with excellent academic performance**, Hanoi University of Civil Engineering, Vietnam

References

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