Viet Quoc Le

ARUP Graduate Advanced Technology & Research Engineer
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Education

Doctor of Philosophy in Civil (Structural) Engineering - Northeastern University 2016-2020

· Dissertation: *A Performance-based Wind Engineering Framework for Vertical Structures Subjected to Nonstationary Wind Loads*
· Successfully defended dissertation on April 09, 2020

Master of Science in Civil (Structural) Engineering - University of Massachusetts Lowell 2015-2016

· Thesis: *Detection and Quantification of Damage from ASR Gels Using Multiphysical Nondestructive Evaluation*

Bachelor of Science in Civil & Environmental Engineering - University of Massachusetts Lowell 2011-2015

· Summa Cum Laude, GPA: 3.98/4.00

Professional and Research Experience

Structural Engineering Graduate Research Assistant - Northeastern University, Boston, MA 2016/09 - 2020/05

· Developed a performance-based engineering framework for the risk and life-cycle cost assessment of vertical structures subjected to wind loads from thunderstorm downbursts and tornadoes
· Conducted wind tunnel tests to simulate and analyze non-stationary wind outflows and their effects on a building model
· Applying data science techniques to approximate structural responses and fragilities

Structural Engineering Graduate Teaching Assistant - Northeastern University, Boston, MA 2017/09-2020/05

· Provided assistance for Steel Design and for Materials and Measurements courses
· Graded homework and lab reports, led lectures and labs, and held office hours for students

Research Intern - GCP Applied Technologies, Cambridge, MA 2016/06-2016/08

· Performed image analysis and data clustering techniques for the improvement of quality control for concrete mixes

Structural Engineering Research Assistant - University of Massachusetts Lowell, Lowell, MA 2013/05-2016/05

· Involved in the multiphysical nondestructive evaluation of cementitious composites using microwave imaging radar, ultrasonic testing, dielectric measurements with a contact probe, and an unmanned aerial vehicle

Geoenvironmental Engineering Research Assistant - University of Massachusetts Lowell, Lowell, MA 2012/05-2012/09

· Worked in a multi-disciplinary research group for novel technology in geoenvironmental site characterization

Technical Skills

Proficient/Working Knowledge

· MATLAB, Microsoft Office, Python, LaTeX

Basic Knowledge

· ANSYS Fluent, OpenFOAM, AutoCAD, C++, LabView

Select Publications

Peer-reviewed Journal Papers

· Le, V.; Caracoglia, L. (2020). "Performance-based wind engineering framework to analyze vertical structures subjected to nonstationary downburst and tornado loads", *Structural Safety*. (Under review).
· Le, V.; Caracoglia, L. (2020). "Experimental investigation of non-stationary wind loading effects generated with a multi-blade flow device", *Journal of Fluids and Structures*. 96: 103049. Link.
· Le, V.; Caracoglia, L. (2020). "A neural network surrogate model for the performance assessment of a vertical structure subjected to non-stationary, tornadic wind loads", *Computers & Structures*. 231: 106208. Link.
· Le, V.; Caracoglia, L. (2020). "Life-cycle cost analysis of a point-like structure subjected to tornadic wind loads", *ASCE Journal of Structural Engineering*. 146 (2): 04019194. Link.

Memberships and Certifications

Fundamentals of Engineering Exam - Passed 2015/10
American Society of Civil Engineers (ASCE) - Associate Member (A.M.) 2020/05-Present
American Association for Wind Engineering (AAWE) - Student Member 2020/05-Present
Associazione Nazionale per l'Ingegneria del Vento (ANIV) - Young Professional Member 2020/05-Present