

QUANG HOAI, LE

<http://quanghoaile.com/>

☎ (+82) 10-7387-6894

✉ hoaile10@hanyang.ac.kr

📍 Ansan 15588, South Korea

Research Interests

After obtaining a Ph.D. in Smart City Engineering, I have been pursuing research in the fields of Smart Cities and Urban Data Science, with a particular focus on leveraging spatial data sources such as street-view imagery, drone imagery, and machine learning or deep learning techniques to evaluate human perception and the quality of urban design through the lens of environmental psychology.

Education

Smart City Engineering
Sep 2020 – Feb 2025

Hanyang University – Department of Smart City Engineering
M.Sc. – Ph.D. Combined Program
4.36/4.5 cumulative GPA

Architecture
Sep 2013 – May 2018

Vietnam National University Ho Chi Minh City – University of Technology
Bachelor of Architecture
8.05/10 cumulative GPA

Working Experience

Apr 2025 – Present

Postdoctoral Researcher
Center for AI Technology in Construction, Hanyang University, Korea

Sep 2020 – Feb 2025

Researcher
Sustainable Building and Construction Management Lab, Hanyang University, Korea

Aug 2018 – Aug 2020

Architect
Industrial & Civil Designing Consulting Company, Vietnam

Teaching Experience

Spring 2025

Course: Smart City Living Lab
TA, Hanyang University ERICA, 15588 Republic of Korea

Fall 2022

Course: Introduction to Architecture
TA, Vietnam National University Ho Chi Minh City – University of Technology, Vietnam

Spring 2020

Course: Sustainable Architecture
TA, Vietnam National University Ho Chi Minh City – University of Technology, Vietnam

Mentoring

Dinh N. Ngoc Han
Vietnamese

Doctor of Philosophy, February 2025 – Present
Department of Smart City Engineering, Hanyang University

Dinh Phat Tien
Vietnamese

Doctor of Philosophy, February 2025 – Present
Department of Smart City Engineering, Hanyang University

Trinh Thi Trang Vietnamese	Doctor of Philosophy , May 2025 – Present Department of Smart City Engineering, Hanyang University
Mansur S. Omonov Uzbek	Doctor of Philosophy , December 2024 – Present Department of Digital Innovation, Applied Artificial Intelligence, Hanyang University
Raymond Magar Nepali	Master of Science , December 2024 – December 2025 Department of Digital Innovation, Applied Artificial Intelligence, Hanyang University
Enkhjin Enkhnasan Mongolian	Master of Science , December 2024 – December 2025 Department of Digital Innovation, Applied Artificial Intelligence, Hanyang University
Abdullahi Sani Nigerian	Master of Science , December 2024 – December 2025 Department of Digital Innovation, Applied Artificial Intelligence, Hanyang University

Publications

2025 (SCI-E, Q1)	Le, Q. H. , Moon, H., Ho, J., & Ahn, Y. (2025). From seeing to hearing: A feasibility study on utilizing regenerated sounds from street view images to assess place perceptions. <i>Building and Environment</i> , 269, 112468.
2025 (SCOPUS)	Le, Q. H. , Kang, D., & Ahn, Y. (2025). Determinants of psycho-comfort in urban outdoor spaces: A Narrative review using latent dirichlet allocation (LDA) algorithm. <i>International Journal of Sustainable Building Technology and Urban Development</i> , 16(1), 3–22.
2024 (SCI-E, Q1)	Le, Q. H. , Kwon, N., Nguyen, T. H., Kim, B., & Ahn, Y. (2024). Sensing perceived urban stress using space syntactical and urban building density data: A machine learning-based approach. <i>Building and Environment</i> , 266, 112054.
2024 (SCI-E, Q1)	Ly, D. H., Le, Q. H. , Nguyen, T. D. H. N., Ahn, Y., Kim, K., & Kwon, N. (2024). Advancing modular construction through circular economy: Insights from semi-automated PRISMA analysis and topic modeling. <i>Journal of Building Engineering</i> , 111232.
2024 (SCOPUS)	Seong, S., Le, Q. H. , & Ahn, Y. (2024). Development of a platform dashboard for integrating safety management database in apartment construction for owners. <i>International Journal of Sustainable Building Technology and Urban Development</i> , 15(4), 529–544.
2022 (SCI-E, Q1)	Le, Q. H. , Shin, H., Kwon, N., Ho, J., & Ahn, Y. (2022). Deep learning based urban building coverage ratio estimation focusing on rapid urbanization areas. <i>Applied Sciences</i> , 12(22), 11428.

Academic Conferences & Activities

Apr 2025 (Korea) Invited Talk	AI-Driven Urban Analytics Tool for Healthier and Happier Cities. <i>Smart City Symposium 2025: Future Cities for All. Hosted by Institute of Smart City and Management, UEH University, Vietnam & University of Seoul, Republic of Korea</i>
Jul 2023 (Vietnam) Conference	Utilizing Deep Learning to track urban density parameters in zoning practice-based areas. <i>Proceedings of the Third International Conference on Sustainable Civil Engineering and Architecture</i>
Jul 2023 (Vietnam) Conference	A review of current progress and application of machine learning on 3D-printed concrete. <i>Proceedings of the Third International Conference on Sustainable Civil Engineering and Architecture</i>
Apr 2023 (Korea) Conference	Investigating in urban visual perception assessment – Can Street View images capture human sight? <i>Proceeding of Architectural Institute of Korea Spring Conference 2023</i>

Apr 2022 (Korea) Conference	Assessing urban design: measure unmeasurable things with computer vision. <i>Proceeding of Architectural Institute of Korea Spring Conference 2022</i>
Apr 2022 (Korea) Conference	A Survey of Computer Vision and Unmanned Aerial Vehicles in Urban Assessment and Management. <i>Proceedings of the Korean Society of Structural Diagnostic and Maintenance Engineering</i>
Oct 2021 (Korea) Conference	Saemangeum Renewable Energy National Comprehensive Demonstration Complex Integrated Control Center Plan - Design process based on US DOEESIF case study. <i>Proceeding of Architectural Institute of Korea Fall Conference Paper Collection 2021</i>
Apr 2021 (Korea) Conference	Generative Design Work Process for Modular Architecture: Matrix-based Algorithm. <i>Proceeding of Architectural Institute of Korea Spring Conference 2021</i>

Academic Services

Peer Reviews

International Journal of Urban Science

International Journal of Geo-Information

Sustainability

Awards & Honors

2022 – First Prize in Korea Modular Architecture Design Contest 2022 – Hosted by The Korea Steel Association and the Seoul Housing and Communities Corporation

2022 – Excellent Paper Presentation Award at the 2022 Spring Academic Conference – Hosted by Korean Society of Structural Diagnostics and Maintenance Engineering

2018 – Excellent Urban and Rural Planning Graduation Project – Hosted by Vietnam Association of Urban Planning and Development

2018 – Outstanding Graduation Project – Hosted by Architecture Magazine of Vietnam Association of Architecture

2018 – Second Prize in Park Landscape Design Competition – Hosted by Vietnam National University Ho Chi Minh City

2017 – Third Prize in Design contest of The Space for Tay Nguyen gongs cultural exchange – Hosted Vietnam Association of Architecture

2016 – Top ten outstanding projects in the ARCHICAD BIM Competition – Hosted by Vang Lang University, Vietnam

Technical Skills

Languages: Vietnamese (native), English (fluent), Kream (Topik, limited working proficiency)

Design: AutoCAD, Sketchup, Adobe Photoshop, Lumion, Enscape

Computer Skills: Python, ArGIS, QGIS, Google Earth Engine, Tableau

Analytics Skills: Machine Learning, Deep Learning, Text Mining

References

Yong-han Ahn, Ph.D.

Professor at Department of Architecture Engineering, Hanyang University, Republic of Korea

Thi Hong Na Le, Ph.D.

Associate Professor at Department of Civil Engineering, Vietnam National University Ho Chi Minh City – University of Technology, Vietnam

Hwan-yong Kim, Ph.D.

Professor at Department of Smart City Engineering, Hanyang University, Republic of Korea

Hyo-soo Moon, Ph.D.

Professor at Department of Civil, Architectural, and Environmental Engineering, North Carolina A & T State University, USA