

Tuyen Thanh Le

PhD Candidate

Department of Civil, Construction and Environmental Engineering

Iowa State University, Ames, Iowa

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EDUCATION

Ph.D., Civil Engineering, August 2014 – May 2017 (expected)

Iowa State University, Ames, Iowa

Advisor: Dr. H. David Jeong

Dissertation: “Natural Language based partial model extraction from linked life-cycle infrastructure digital spaces”

M.S., Construction Engineering and Management, August 2012 – December 2013

Ho Chi Minh City University of Technology, Ho Chi Minh, Vietnam

Advisor: Dr. Long Duc Luong

Thesis: “Developing a 4D-BIM based scheduling framework for repetitive projects”

B.E. with Honors, Civil Engineering, August 2006 – December 2010

Ho Chi Minh City, University of Technology, Ho Chi Minh, Vietnam

RESEARCH EXPERIENCE

Graduate Research Assistant (August 2014 – present)

Department of Civil, Construction and Environmental Engineering, Iowa State University

- Main researcher of project: “Guide to Data and Information Sharing Workflows across the Life Cycle of Transportation Assets”
- Main researcher of project: “Natural Language Based Data Retrieval Engine for Automated Digital Data Extraction for Civil Infrastructure Projects”

Graduate Research Assistant (December 2013 – May 2014)

Department of Civil and Environmental Engineering, Singapore National University

- Designed an algorithm for finding the optimal layout of room functions in hospital projects.

Lecturer (September 2011 – December 2013)

Ho Chi Minh City University of Technology, 2012 – 2013

- Developed a computerized model for scheduling non-repetitive and repetitive projects under correlated uncertainties.
- Implemented 4D-BIM in scheduling and controlling the construction process of repetitive projects.

TEACHING and MENTORING EXPERIENCE

Research Mentor, Iowa State University (2016)

- Provided a senior student (Alan Hayes) with guidance on how to collect and analyze data, and review and edit his report writing on a funded project.

Instructor, Iowa State University (2015 to present)

- Course: CE594A – Planning and Scheduling (Spring 2015, Fall 2015, Spring 2016, Fall 2016).

Guest Lecturer, Iowa State University (2016)

- Course: CE595A – Research Methods in Construction Engineering and Management (Fall 2016). Developed and delivered a lecture on digital data sharing through the life-cycle of infrastructure project.

Lecturer, Ho Chi Minh City University of Technology (2011-2013)

- Courses: 807012 – Economics in Construction; 807018 – Construction Project Management. Designed and delivered lectures.

GRANTS

National Science Foundation (NSF) (September 2016 – September 2019)

- Project title: “Natural Language Based Data Retrieval Engine for Automated Digital Data Extraction for Civil Infrastructure Projects” (Total Awarded: \$285,305)
- Role: Main proposal contributor (PI: David Jeong)

Iowa Highway Research Board (IHRB) and Midwest Transportation Center (MTC) (August 2016 – January 2018)

- Project title: “Guide to Data and Information Sharing Workflows across the Life Cycle of Transportation Assets” (Total Awarded: \$180,000)
- Role: Main proposal contributor (PI: David Jeong)

Project Management Institute (PMI) (December 2016 – October 2017)

- Project title: “Cutting – Edge Advancements in Project Management from across Industry Sectors” (pending)
- Role: Main proposal contributor (PI: David Jeong)

Project Management Institute (PMI) (January 2016 - December 2017)

- Project title: “Project Analytics: Integrating Project Management with Big Data” (unsuccessful)
- Role: Main proposal contributor (PI: David Jeong)

Midwest Transportation Center (MTC) (January 2015 – July 2017)

- Project title: “Guide to Transferring Design and Construction Data to Asset Management” (**unsuccessful**)
- Role: Main proposal contributor (PI: David Jeong)

Ho Chi Minh City University of Technology

- Project title: A 4D-based scheduling framework for repetitive projects (May 2013 – May 2014) (Total Awarded: \$1,000)
- Role: Principle Investigator (Co-PI: Long Duc Luong)

PUBLICATIONs

Peer-Reviewed Journal Articles

- Le, T. and H. D. Jeong (2017). "Automated extraction for partial BIM model using context-aware searching algorithm". *Journal of Computing in Civil Engineering*, ASCE. (In preparation)
- Le, T. and H. D. Jeong (2016). "NLP-based approach to classifying heterogeneous terms for unambiguous exchange of highway data." *Journal of Computing in Civil Engineering*, ASCE. (In second review)
- Le, T. and H. D. Jeong (2016). "Interlinking life-cycle data spaces to support decision making in highway asset management." *Automation in construction* 64: 54-64.

Peer-Reviewed Conference Papers (presenter underlined)

- Le, T. and H. D. Jeong (2016). Technical term similarity model for natural language based data retrieval in civil infrastructure projects. *Proceedings of 33rd International Symposium on Automation and Robotics in Construction (ISARC 2016)*, Jul 2016, Auburn, Alabama, USA
- Le, T. and H. D. Jeong (2016). A framework for inter-connection of life-cycle highway data islands. *Proceedings of 2016 Construction Research Congress (CRC2016)*, June 2016, Puerto Rico, USA.
- Le, T.T. & Luong, D.L., (2013). Scheduling method for repetitive projects under correlated uncertainties. In *13th Conference on Science and Technology – Structure & Architecture Session- 2013 HCMUT Vietnam- Faculty of Civil Engineering*. pp. 1-8. Ho Chi Minh City, Vietnam.

Presentations with abstract reviewed (presenter underlined)

- Le, T. and H. D. Jeong (2016). Measuring synonymy of data attributes from heterogeneous sources in transportation projects, US-Korea Conference, August 2016, Dallas, Texas, USA.
- Le, T. and H. D. Jeong (2015). Data extraction from highway information model. *2015 Mid-Continent Transportation Research Symposium*. Ames, United States.
- Le, T. and H. D. Jeong (2015). A digital dictionary of highway technical terms. *5th Annual CCEE Graduate Student Research Showcase and Poster Competition*. Ames, United States.

Other publications

- Le, T.T. and Luong, D.L., (2013). "Developing a 4D-BIM model for scheduling repetitive projects." *Vietnamese Journal of Construction*, 12-2013, pp.100-103.
- Le, T.T. and Luong, D.L., (2013). "Scheduling under correlated uncertainties." *Vietnamese Journal of Construction*, 08-2013, pp.66-71.

HONORs and AWARDs

- Iowa State University Graduate Assistantship, 2015-present
- Travel grant from GPSS, Iowa State University, January 2016 (\$180)
- Travel grant from CCEE Department, Iowa State University, May 2016 (\$350)
- Iowa State University Presidential Scholars, 2014-2015 (\$20,000)
- Outstanding Young Staff Award, Ho Chi Minh City University of Technology, 2013
- Gold Medal for the best bachelor's degree graduate Ho Chi Minh City University of Technology, 2011
- Loa Thanh Prize (ranked 2nd) for excellent undergraduate theses, 2011
- Bronze medal in the Vietnam National Mechanics Olympiad, 2009
- Kiatagawa scholarship, 2009 & 2011

Lawrence Sting scholarship & Pony Chung scholarship, 2008
Viet-Japan scholarship, 2007
Investlife scholarship & Viethope scholarship, 2006

PROFESSIONAL SERVICES

Journal reviewer (2015-present)

Journal of Construction Engineering and Management - ASCE (02 manuscripts),
Construction Research Congress - ASCE (01 manuscript), Transportation Research Board -
Annual Meeting (02 manuscripts)

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE), Member (2015-present)

REFERENCES

Dr. David Jeong

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Department of Civil, Construction and Environmental Engineering
Iowa State University
Town Engineering, Ames, IA-50010
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Dr. Doug Gransberg

Professor
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