

**Tuyen Thanh Le**  
PhD Candidate  
Department of Civil, Construction and Environmental Engineering  
Iowa State University, Ames, Iowa  
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## EDUCATION

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**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

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**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

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**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

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**National Science Foundation (NSF)**

- Project title: “Natural Language Based Data Retrieval Engine for Automated Digital Data Extraction for Civil Infrastructure Projects” (September 2016 – September 2019)
- Role: Main proposal contributor (PI: David Jeong)
- Amount: \$285,305 (**Awarded**)

**Iowa Highway Research Board (IHRB) and Midwest Transportation Center (MTC)**

- Project title: “Guide to Data and Information Sharing Workflows across the Life Cycle of Transportation Assets” (August 2016-January 2018)
- Role: Main proposal contributor (PI: David Jeong)
- Amount: \$180,000 (**Awarded**)

**Project Management Institute (PMI)**

- Project title: “Cutting – Edge Advancements in Project Management from across Industry Sectors” (December 2016 – October 2017)
- Role: Main proposal contributor (PI: David Jeong)
- Amount: \$50,000 (**pending**)

**Project Management Institute (PMI)**

- Project title: “Project Analytics: Integrating Project Management with Big Data” (January 2016 - December 2017)
- Role: Main proposal contributor (PI: David Jeong)
- Amount: \$50,000 (**unsuccessful**)

**Midwest Transportation Center (MTC)**

- Project title: “Guide to Transferring Design and Construction Data to Asset Management” (January 2015 – July 2017)
- Role: Main proposal contributor (PI: David Jeong)
- Amount: \$154,656 (**unsuccessful**)

**Ho Chi Minh City University of Technology**

- Project title: A 4D-based scheduling framework for repetitive projects (May 2013 – May 2014)

- *Role:* Principle Investigator (Co-PI: Long Duc Luong)
- *Amount:* \$1,000 (**Awarded**)

## PUBLICATIONs

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### 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 33<sup>rd</sup> 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.

## HORNORs and AWARDS

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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 2<sup>nd</sup>) 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**

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### **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**

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

## **REFERENCES**

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Dr. David Jeong

Associate Professor

Department of Civil, Construction and Environmental Engineering

Iowa State University

Town Engineering, Ames, IA-50010

[djeong@iastate.edu](mailto:djeong@iastate.edu)

515-294-7271

Dr. Doug Gransberg

Professor

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