

## Curriculum Vitae

### **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, May 2017 (expected)

Iowa State University, Ames, Iowa

*Advisor:* H. David Jeong

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

M.S., Construction Engineering and Management, December 2013

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

*Advisor:* Long Luong-Duc

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

B.E., Civil Engineering, December 2010

Vietnam National University-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 Engineer, Singapore National University*

- Design 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*

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

## **TEACHING and MENTORING EXPERIENCE**

Research Mentor, Iowa State University (2016)

- Provide 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). Give a guest lecturer

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

- Course: Economics in Construction.

## GRANTS

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**)

Vietnam National University-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: Duc-Long Luong)
- *Amount*: \$1,000 (**Awarded**)

## **AWARDS and SCHOLARSHIPS**

Iowa State University Graduate Assistantship, 2015-present  
Iowa State University President Scholarship for Graduate Students, 2014-2015  
Travel grant from GPSS, Iowa State University, January 2016 (~\$500)  
Travel grant from CCEE Department, Iowa State University, May 2016 (~\$300)  
Outstanding Young Staff Award, Ho Chi Minh City University of Technology, 2013  
Gold Medal for best graduates in the Bachelor of Civil Engineering, 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**

### 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)

## **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 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*, 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.

## REFERENCES

Dr. David Jeong  
Associate Professor  
Department of Civil, Construction and Environmental Engineering  
Iowa State University  
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