

## KIEN TRUNG DOAN

Transportation Specialist  
UCCI – Ho Chi Minh City

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### EDUCATION

- **Ph.D.**, Transportation Engineering, Purdue University ([Link to my dissertation](#)) Aug 2013
- **M.S.**, Transportation Engineering, Rensselaer Polytechnic Institute (RPI) ([Link to my thesis](#)) Dec 2009
- **B.S.**, Civil Infrastructure Engineering, Hanoi Architectural University, Vietnam ([Link to my project](#)) May 2006

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### WORKING EXPERIENCE

- **Transportation Specialist** – Green Transport Development PMU, Urban-civil works Aug 2015 to present  
construction investment management authority of ho chi minh city (UCCI)
  - Managing and actualizing the first BRT line in Ho Chi Minh City
    - + Working with different stakeholders: World Bank, Swiss State Secretariat for Economic Affairs SECO, EMBARQ, iRAP, HCM people committee, HCM DOT, HCM DUPA, MOCPT, staff from districts, tunnel PMU, Thu Thiem PMU, etc.
    - + Working with the consultant firms to conduct different packages within the projects.
    - + Technically reviewing and assessing all previous studies and related projects prior to the detailed design stage, e.g. Pre-FS, FS, basic design.
  - Organizing capacity strengthening and training courses for city department staff.
- **Project manager/Strategic developer/Transportation Engineer** – [ACUD](#) Oct 2013-Aug 2015  
(Architecture, Construction and Urban Development company, Hanoi, Vietnam)
  - Leading a team to build up a media sector for the company.
  - Administering and running websites <http://thuvienxaydung.net/> and <http://acud.vn/> where people can find and download civil engineering standards, books, journals, planning projects, survey maps, template drawings, and many more.
  - Making subtitles (both English and Vietnamese) for [50+ scientific movies](#) on various topics within Civil Engineering field.
  - Creating and operating a Youtube channel with 4 million views, 12 thousand subscribers, with an average rate of 12.000 views per day and hundreds of positive comments ([Link to the youtube channel](#))
  - Expanding the customer relationships, focusing on foreign investors and international consultant firms.
  - Joining the design team for master and detailed planning projects.
- **Expert** – SUNJIN Engineering & Architecture Co., Ltd., 2014-2015  
Project: Hanoi Urban Transport Development Project - Support of Hanoi Department of Planning and Architecture (HDPA) for Urban Planning
  - Participating in Report #4:
    - + Building the travel demand model for Hanoi
    - + Using state-of-the-art transportation models and software package (TransCAD)
  - Main personnel in conducting Report #6:
    - + Writing two main chapters, making the final report in both Vietnamese and English
    - + Using VISSIM for a demonstration of the outcome: <https://youtu.be/isbs68vDz8o>
  - Responding to the comments from World Bank, PMU, HDPA
- **Research Associate** – Purdue University, West Lafayette, IN Aug 2013-Dec 2013
  - Developing algorithms to solve the traffic assignment and network design problems
- **Research Assistant** – Purdue University, West Lafayette, IN 2010-Aug 2013
  - Conducting three National Science Foundation projects
  - Developing a GIS data modeling tool as a critical module for demand analysis and traffic simulation
  - Proposing methodology and algorithms to solve dynamic traffic assignment and network design problems
- **Research Assistant** – Rensselaer Polytechnic Institute, Troy, NY 2008-2009
  - Developing methodology to suggest best practices for Park and Ride facilities in New York city
- **Transportation Engineer** – Asean Consultant Design Joint Stock Company, Hanoi, Vietnam 2006-2008

- Conducting three transportation planning projects and five detailed design projects
- **Lecturer** – Hanoi Architectural University, Hanoi, Vietnam
- Giving lectures in Transportation Engineering, Public Transit

2007-2008

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## PUBLICATIONS

**Publishing 4 papers in a top-tier transportation journal and 2 papers on two top international transportation conferences**

### Journal Articles

- Doan, K., Ukkusuri, S., 2015. Dynamic system optimal model for multi-OD traffic networks with an advanced spatial queuing model. *Transportation Research Part C: Emerging Technologies* 51, 41-65 ([Link](#))
- Doan, K., Ukkusuri, S., 2014. Measuring inefficiency in dynamic traffic networks: a numerical study. *Transportation Letters: the International Journal of Transportation Research*. DOI: <http://dx.doi.org/10.1179/1942787514Y.0000000045> ([Link](#))
- Ukkusuri, S., Han, L., Doan, K., 2012. Dynamic user equilibrium with a path based cell transmission model for general traffic networks. *Transportation Research Part B: Methodological* 46 (10), 1657-1684 ([Link](#))
- Doan, K., Ukkusuri, S., 2012. On the holding-back problem in the cell transmission based dynamic traffic assignment models. *Transportation Research Part B: Methodological* 46 (9), 1218–1238 ([Link](#))
- Han, L., Ukkusuri, S., Doan, K., 2011. Complementarity formulations for the cell transmission model based dynamic user equilibrium with departure time choice, elastic demand and user heterogeneity. *Transportation Research Part B: Methodological* 45 (10), 1749–1767 ([Link](#))
- Doan, K., Ukkusuri, S., Han, L., 2011. On the existence of pricing strategies in the discrete time heterogeneous single bottleneck model. *Transportation Research Part B: Methodological* 45 (9), 1483–1500 ([Link](#))

### Conference Articles

- Ukkusuri, S., Doan, K., and Aziz, A., 2013. A bi-level formulation for the combined dynamic equilibrium based traffic signal control. *Procedia-Social and Behavioral Sciences* 80 (7), 729–752. *20th International Symposium on Transportation and Traffic Theory* ([Link](#))
- Doan, K., Ukkusuri, S., Han, L., 2011. On the existence of pricing strategies in the discrete time heterogeneous single bottleneck model. *Procedia-Social and Behavioral Sciences* 17, 269-291. *19th International Symposium on Transportation and Traffic Theory* ([Link](#))

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## PRESENTATIONS

- Doan, K., 2013. Advances in dynamic network modeling with spatial queue based traffic flow models. *TRB 2013*
- Doan, K., Ukkusuri, S., 2013. Measuring inefficiency in dynamic traffic networks: A numerical study. *INFORMS 2013*.
- Ukkusuri, S., Doan, K., Aziz, A., 2012. Bi-level formulation for signal control and dynamic user equilibrium problem. *INFORMS 2012*.
- Doan, K., Ukkusuri, S., 2012. Dynamic system optimal for general network embedding cell transmission model. *INFORMS 2012*.
- Doan, K., Ukkusuri, S., 2012. Price of anarchy in dynamic traffic networks: A computational study. *INFORMS 2012*.
- Ukkusuri, S., Han, L., Doan, K., 2012. Dynamic user equilibrium with a path based cell transmission model for general traffic networks. *International Symposium on Dynamic Traffic Assignment (DTA) 2012*.
- Doan, K., Ukkusuri, S., and Han, L., 2011. Complementarity formulations for the cell transmission model based dynamic user equilibrium with departure time choice, elastic demand and user heterogeneity. *INFORMS 2011*.
- Doan, K., Ukkusuri, S., 2011. Price of anarchy in dynamic network equilibrium: numerical analysis. *INFORMS 2011*.
- Doan, K., Ukkusuri, S., and Han, L., 2011. On the existence of pricing strategies in the discrete time heterogeneous single bottleneck model. *19th International Symposium on Transportation and Traffic Theory*
- Han, L., Ukkusuri, S., and Doan, K., 2010. Complementarity formulations for the cell transmission model based dynamic user equilibrium with departure time choice, elastic demand and user heterogeneity. *INFORMS 2010*.
- Doan, K., Ukkusuri, S., and Han, L., 2010. On the existence of pricing strategies in the discrete time heterogeneous single bottleneck model. *INFORMS 2010*.
- Doan, K., and Ukkusuri, S., 2010. On the existence of system optimal pricing strategies in the heterogeneous

single bottleneck model. *Transportation Research Board*.

- Ukkusuri, S., Isa, J., and Doan, K., 2010. New York city Park and Ride study for facility location methodology. *Transportation Research Board*.

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## PROFESSIONAL ACTIVITIES

### Invited talk

- Doan, K., 2013. Dynamic traffic assignment models and network inefficiency for dynamic traffic networks. *Presented at Computational Transportation Science (CTS) program - University of Illinois at Chicago (UIC)*

### Referee for journals

- Transportation Research Part B: Methodological
- Transportation Research Part D: Transport and Environment
- Transportation Research Part E: Logistics and Transportation Review
- Transportation Research Part A: Policy and Practice
- Operation Research
- Networks and Spatial Economics
- Transportation research record

### Referee for Conferences

- ISTTT - International Symposium on Transportation and Traffic Theory
- DTA - International Symposium on Dynamic Traffic Assignment
- EASTS - Eastern Asia Society for Transportation Studies

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## TEACHING EXPERIENCE

### Teaching assistant at Purdue University

- Dynamic Transport Modeling (CE597) Spring 2013
  - Giving lectures on dynamic network loading, user equilibrium and system optimal models
- Algorithms In Transportation (CE661) Spring 2012
  - Giving lectures on static traffic assignment using TransCAD.

### Lecturer at Hanoi Architecture University

- Teaching Public Transit 2007-2008
  - Giving lectures, quizzes; grading the students' assignments and projects.
- Assisting senior lectures with student's final projects 2007-2008
  - Guiding the students for their final projects

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## SKILLS

- Strong analytical and problem solving skills
- Transportation, GIS, and simulation tools: TransCAD, ArcGIS, AutoCAD, Synchro, VISSIM, etc
- Strong data analysis skills: LIMDEP, STATA, Excel
- Programming languages: C++, Java, Matlab, Visual Basic, Autolisp
- Excellent AutoCAD skill with ability to program
- Optimization languages: AMPL, GAMS
- Fluency in speaking and writing English
- Excellent technical writing skill
- Ability to lead a team or work independently
- Multitask skill
- Willingness to learn new things

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## HONORS AND AWARDS

- Vietnam Education Foundation (VEF) Scholarship for the MS/PhD program. Aug 2007
- First Prize, Loa Thanh Contest, for Excellent Thesis in Civil Engineering. Nov 2006
- Graduated with Special Recognition - The Most Excellent and Unique Student in Hanoi Architectural University, Hanoi People's Committee. Aug 2006
- Graduated with Honors, rank 1 over 1000 graduated students, Hanoi Architectural University. Jun 2006
- Consolation Prize, Science Study Contest for Students, Vietnam Ministry of Education and Training. Nov 2005  
Research title: "Systematization of Elevation Planning and Technical Design in Urban Roads".
- First Prize, Science Study Contest for Students, Hanoi Architectural University. Research title: Sep 2005  
"Systematization of Elevation Planning and Technical Design in Urban Roads".
- First Prize, Mathematics Olympiad, Hanoi Architectural University. Apr 2003
- FUYO Scholarship, Japan, For the Most Excellent Student in Civil Infrastructure Department. Nov 2002
- First place, entrance exam to be admitted by Hanoi Architectural University Sep 2001

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## LEADERSHIP EXPERIENCE

- Leading a team of designers and coders to create UCCI website Aug 2015-present
- Leading a group of engineers for several specific projects in ACUD 2013-2015
- Leading a group of engineers and researchers to conduct World Bank reports 2014-2015
- Leading a group of graduate students doing GIS data modeling and traffic simulation 2010-2013
- Operating a program to collect the donated textbooks from university campuses 2008-2010
- Leading a team in several transportation planning and detailed design projects at Asean Consultant Design Joint Stock Company 2007-2008
- Being a member of Vietnam Communist Party 2005-present