

CURRICULUM VITAE

for

DANIEL TRAN, PH.D.

Assistant Professor

Department of Civil, Environmental, and Architectural Engineering

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I. EDUCATION

- Ph.D. 2013 University of Colorado at Boulder, Colorado
Major: Construction Engineering and Management
Dissertation: *Risk-based Model to Select Project Delivery Methods for Highways*
Advisor: Dr. Keith Molenaar
- M.S. 2013 University of Colorado at Boulder, Colorado
Major: Probability and Statistics
Thesis: *An Efficient Search Strategy for Aggregation and Discretization of Attributes of Bayesian Networks Using Minimum Description Length*
Advisor: Dr. Jem Corcoran
- M.S. 2009 Georgia Institute of Technology, Atlanta, Georgia
Major: Structural Engineering
Thesis: *Toward Improved Bracing Requirements for Metal Building Frame Systems*
Advisor: Dr. Donald White
- B.S. 2003 National University of Civil Engineering, Hanoi, Vietnam
Major: Civil Engineering

II. WORK EXPERIENCE

- 08/2013 – Present: Assistant Professor
Department of Civil, Environmental, and Architectural Engineering,
University of Kansas, Lawrence, KS
- 08/2010 – 08/2013: Research Assistant
Department of Civil, Environmental, and Architectural Engineering,
University of Colorado, Boulder, CO
- 08/2010 – 05/2011: Teaching Assistant
Department of Civil, Environmental, and Architectural Engineering,
University of Colorado, Boulder, CO

- 08/2009 – 05/2010: Teaching Assistant
Department of Civil, Construction, and Environmental Engineering,
University of Alabama, Tuscaloosa, AL
- 01/2007 – 08/2009: Research Assistant
School of Civil Engineering,
Georgia Institute of Technology, Atlanta, GA
- 05/2005 – 08/2006: Structural Engineer and Project Manager
Hanoi Design, Construction and Consultant Corporation, Vietnam
- 08/2003 – 02/2005: Structural Engineer and Project Engineer
Vietnam Water, Sanitation and Environmental Company
- 08/2002 – 08/2003: Structural Engineer
Vietnam Petroleum Engineering Company

III. PROFESSIONAL ORGANIZATIONS

- Associate Member, American Society of Civil Engineers (ASCE), 2007 – Present
- Member, ASCE - Construction Research Congress, 2014 - Present
- Member, ASCE - Construction Institute (CI), 2013 - Present
- Member, Transportation Research Board (TRB) Committee on Construction Management (AFH10), 2014 – Present
- Member, TRB Subcommittee on Information Systems 2014 – Present
- Young Member and Assistant to Committee Communication Director, TRB Committee on Project Delivery Methods (AFH15), 2014 – Present
- Member, NCHRP Project Panel on Framework for Analyzing the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change, 2014 - Present
- American Society of Engineering Education (ASEE), Member, 2013 – Present
- Association for the Advancement of Cost Engineering (AACE), Member, 2012 - Present
- International Road Federation (IRF), Member, 2008 - Present

IV. AWARDS AND HONORS

- 2014 ASCE ExCEEEd Teaching Fellowship
- 2012 The Association for the Advancement of Cost Engineering (AACE) Scholarship
- 2008 The IRF Traditional and Executive Leadership Fellow, International Road Federation
- 2005 Vietnam Government Fellowship, Vietnam Ministry of Education
- 2001 The best undergraduate research, National University of Civil Engineering, Vietnam

V. PROFESSIONAL CERTIFICATES

- *Six Sigma Certificate*, Lockheed Martin Engineering Management Program, University of Colorado, May 2013
- *Certificate of Writing in Sciences* (with distinction), Stanford University, November 2012
- *LRFD Certificate for Highway Superstructures*, National Highway Institute, June 2008
- *Certificate in Integral Abutment Bridges*, International Building Codes, June 2008

VI. PRIMARY RESEARCH INTERESTS

- Risk analysis and decision making;
- Alternative project delivery and contracting methods;
- Risk/Cost engineering, analysis, and management;
- Infrastructure life cycle engineering and performance/ sustainable; and
- Application of statistics, modeling, and technology to the problems of civil infrastructure projects.

VII. PUBLICATIONS

Peer-Reviewed Journal Articles Published

- **Tran, D.** and Molenaar, K. R. (2014) “The Impact of Risk on Design-Build Selection for Highway Design and Construction Projects” *ASCE Journal of Management in Engineering*, 30(2), 163-172.
- Nguyen, L.D., Nguyen, T.K.N, **Tran, D.**, and Villiers, C. (2014). “Productivity in Daytime and Nighttime Construction of Urban Sewer Systems” *ASCE Journal of Construction Engineering and Management*, ASCE 140 (7), 04014021-1-9, 2014.
- **Tran, D.**, Hallowell, M.R., and Molenaar, K. R. (2014). “Construction Management Challenges and Best Practices for Rural Transit Projects” *ASCE Journal of Management in Engineering*, ASCE, 04014072-1 to 04014072-10.
- **Tran, D.** and Molenaar, K. R. (2014) “Exploring Critical Delivery Selection Risk Factors for Transportation Design and Construction Projects” *Engineering, Construction and Architectural Management Journal*, 21(6), 631-647.
- Corcoran, J., **Tran, D.**, and Levine, N. (2014). “An Efficient Search Strategy for Aggregation and Discretization of Attributes of Bayesian Networks Using Minimum Description Length.” *arXiv preprint: 1404.0752*. (<http://arxiv.org/abs/1404.0752>) (*)
- **Tran, D.**, Harper C.M., Molenaar, K. R.; Haddad, N.F., and Scholfield, M.M. (2013). “A Project Delivery Selection Matrix for Highway Design and Construction” *Transportation Research Record: Journal of the Transportation Research Board, National Academies*, No. 2347, Dec, 3-10.

Peer-Reviewed Conference Proceedings Published/Accepted

- Wilson, C., **Tran, D.**, and Molenaar, K. R. (2015). “Program Risk Management Approach to Reducing Cost Uncertainty in Highway Projects” 94th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C.

- **Tran, D.** and Molenaar, K. R. (2014). “Delivery Risk Factors for Highway Construction Manage/General Contractor (CMGC) Projects” 93th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C.
- Harper C.M, **Tran, D.**, Tim, M., and Molenaar, K. R. (2014). “A Project Delivery Selection Matrix for Highway Design and Construction” 93th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C.
- **Tran, D.**, Lester, H., and Sobin, N. (2014). “Toward Statistics on Construction Engineering and Management Research” *ASCE Construction Research Congress*, Atlanta, GA, May 19-21, 2014
- Nguyen, L.D., Nguyen, T.K.N, and **Tran, D.** (2014). “Shift work and labor productivity in urban sewer construction.” *ASCE 2014 Construction Research Congress*, Atlanta, GA, May 19-21, 2014
- **Tran, D.**, Harper C.M., Molenaar, K. R.; Haddad, N.F., and Scholfield, M.M. (2013). “A Project Delivery Selection Matrix for Highway Design and Construction *Proc. Annual Transportation Research Board Meeting*, Washington, D.C.
- **Tran, D.** and Molenaar, K. R. (2012). “Critical Risk Factors in Project Delivery Method Selection for Highway Projects” *ASCE Construction Research Congress*, West Lafayette, IN, May 21-23, 2012.

Reports

- Molenaar, K. R. and **Tran, D.** (2015) “Practices for Developing Transportation Best Value Selection Procedures,” NCHRP Project 20-05, *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, DC.
- A Computerized System for Selecting Highway Project Delivery Methods, Report to the Colorado Department of Transportation, Denver, Colorado, July, 20 pp.
- **Tran, D.** (2013). “A Risk-based Model to Select Delivery Methods for Highway Design and Construction Projects” Ph.D. Dissertation, University of Colorado, Boulder, CO, 220 pp
- **Tran, D.** (2013). “An Efficient Search Strategy for Aggregation and Discretization of Attributes of Bayesian Networks Using Minimum Description Length” M.S Thesis, University of Colorado, Boulder, CO, 44 pp
- **Tran, D.**, Molenaar, K. R., and Scholfield, M.M. (2012). Guidebook for Selecting Highway Project Delivery Methods, Report to the Colorado Department of Transportation, Denver, Colorado, July 2011, 33 pp. (*This work has been presented in Federal Highway Everyday Count and many DOTs have been used this tool for their projects.*)
- **Tran, D.** and Molenaar, K. R. (2012). A Computerized System for Selecting Highway Project Delivery Methods, Report to the Colorado Department of Transportation, Denver, Colorado, July, 20 pp.
- Hallowell, M.R., **Tran, D.**, and Molenaar, K. R. (2012). Guidebook on Construction Management Practices for Rural Projects, NCHRP Project 20-65, Task 40, *A draft report to National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, DC, July, 68 pp.

- **Tran, D.** (2009). “Toward Improved Flange Bracing Requirements for Metal Building Frame Systems” M.S. Thesis, Georgia Institute of Technology, Atlanta, GA, May, 397pp.
- **Tran, D.** (2003). “Design the Welded Steel Cylindrical Tank for Oil Storage with Volume 15,000 m³.” B.S. Thesis, National University of Civil Engineering, Hanoi, Vietnam, May, 205 pp.

VIII. PRESENTATIONS

- Wilson, C., Tran, D., and Molenaar, K. R. (2015). “Program Risk Management Approach to Reducing Cost Uncertainty in Highway Projects” 94th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C
- Tran, D. (2015) “Practices for Developing Transportation Best Value Selection Procedures” 94th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C
- Tran, D., Lester, H., and Sobin, N. (2014). “Toward Statistics on Construction Engineering and Management Research” *ASCE Construction Research Congress*, Atlanta, GA, May, 2014.
- Nguyen, L.D., Nguyen, T.K.N, and Tran, D. (2014). “Shift Work and Labor Productivity in Urban Sewer Construction” *ASCE Construction Research Congress*, Atlanta, GA, May, 2014.
- Tran, D. and Glavinich, T. E. (2014). “Evaluation of CW/CE classification” Electri International, Foundation of Electrical Construction, ELECTRI Council Meeting, Boca Raton, FL, January, 2014.
- Tran, D. and Molenaar, K. R. (2014). “Delivery Risk Factors for Highway Construction Manage/General Contractor (CMGC) Projects” TRB 93rd Annual Meeting, Washington, DC, January, 2014.
- Harper C.M., Tran, D., Tim, M., and Molenaar, K. R. (2014). “A Project Delivery Selection Matrix for Highway Design and Construction” TRB 93rd Annual Meeting, Washington, DC, January, 2014.
- Tran, D., Harper C.M., Molenaar, K. R.; Haddad, N.F., and Scholfield, M.M. (2013). “A Project Delivery Selection Matrix for Highway Design and Construction” TRB 92nd Annual Meeting, Washington, DC, January.
- Tran, D. (2012). “Cross-Impact Analysis Technique for Risk-based Project Delivery Selection Model” *ASCE Construction Research Congress*, West Lafayette, IN, May.
- Tran, D. and Molenaar, K. R. (2012). “Critical Risk Factors in Project Delivery Method Selection for Highway Projects” *ASCE Construction Research Congress*, West Lafayette, IN, May.
- Molenaar, K.R. and Tran, D. (2011). “CDOT – ICAC Project Delivery Selection Matrix: Risk Workshop” Denver, CO, January.
- White, D.W. and Tran, D. (2009). “Use of the AISC Direct Analysis Method for Stability Bracing Design” the Direct Analysis Method: Developments and Applications, Structure Congress, Structure Engineers Institute, ASCE, Austin, TX, April.
- Tran, D. (2008). “Column Stability Bracing: New Results for an Old Problem.” School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA, April.

- White, D.W., Tran, D., and Fisher, J. (2008). “Flange Stability Bracing Requirements for Metal Building Frames” Metal Building Manufacturers Association Researchers Symposium, Arlington, TX, February.
- White, D.W., Tran, D., and Fisher, J. (2007). “Column Stability Bracing Requirements for Steel Frame Systems.” Metal Building Manufacturers Association Researchers Symposium, Chicago, IL, July.

Underlining denotes the presenter.

IX. RESEARCH GRANTS

- Quantification of Cost, Benefits and Risk Associated with Alternate Contracting Methods and Accelerated Performance Specifications, *Federal Highway Administration (FHWA DTFH61-13-R-00019)*.
- Development and Delivery of Cost and Schedule Risk Analysis Template, *Federal Highway Administration (FHWA DTFH61-11-D9-T-13007)*.
- Practices for Developing Transparent Best Value Procedures, *National Cooperative Highway Research Program (NCHRP)*.
- Innovative Contracting Methods and Accelerated Performance Specifications: Risks and Opportunities, *University of Kansas Transportation Research Institute (TRI)*.
- Overview of Best Value Procurement Procedures for Transportation Projects, *University of Kansas Transportation Research Institute (TRI)*.
- Development and Evaluation of a Risk-based Model for Project Delivery Method Selection, *University of Kansas*
- Optimizing the Risk and Cost of Materials QA Programs *National Cooperative Highway Research Program*, at University of Colorado, Boulder.

X. STUDENT ADVISING

Graduate Student Committees Chaired

Bypaneni, Sai, Ph.D. student, Expected Graduation – Fall 2016

Heather Eilers, Ph.D. student, Expected Graduation – Spring 2015

Kolli, Bharath, MS thesis, Fall 2013 – Present, Expected Graduation – Spring 2015

Lampe, Cameron, MS thesis, Spring 2014 – Present, Expected Graduation – Spring 2015

McClain, Allison, MS Report, Fall 2013 – Present, Expected Graduation – Spring 2015

Gustafson, Derek, MS Report, Fall 2013 – Present, Expected Graduation – Fall 2015

Brenner, Taylor, MS Report, Graduated, Fall 2014

Faught, Allen, MS Report, Graduated, Summer 2014

XI. TEACHING EXPERIENCE

Courses Taught at the University of Kansas

CMGT 703	Construction Quality, Productivity, and Safety, Fall 2013
CMGT 802	Special Problems in Construction Engineering and Management, Fall 2013, Spring 2014
CMGT 500	Construction Engineering, Spring 2014, Fall 2014, Spring 2015
CMGT 700	Construction Project Management, Spring 2014, Fall 2014, Spring 2015
CMGT 801	Direct Readings in Construction Management, Spring 2014
CMGT 895	Construction Management Project, Spring 2014
CE 891	Advanced Special Problem, Spring 2014

XII. SERVICE ACTIVITIES

ASCE Journal of Construction Engineering and Management (2013 – Present)
ASCE Journal of Management in Engineering (2012 - Present)
National Academies, Journal of Transportation Research Board (2010 – Present)
Elsevier's Automation in Construction (2013 – Present)
Elsevier's Sustainable Cities and Society (2013 – Present)
Taylor & Francis, Engineering Economist (2013 – Present)
Canadian Journal of Civil Engineering (2014 – Present)