

CURRICULUM VITAE
for
DAI (DANIEL) TRAN, PH.D., P.E., DBIA

David A. and Patricia P. Ross Chair's Council Associate Professor
Department of Civil, Environmental, and Architectural Engineering
University of Kansas
2150 Learned Hall, 1530 West 15th Street
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I. EDUCATION

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

II. WORK EXPERIENCE

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| 08/2022 – Present: | David A. and Patricia P. Ross Associate Professor
Department of Civil, Environmental, and Architectural Engineering,
University of Kansas, Lawrence, KS |
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- 01/2019 – 08/2021: Founding Director
Craig & Diane Martin National Center for Construction Safety,
School of Engineering, University of Kansas, Lawrence, KS
- 08/2019 – Present: Associate Professor
Department of Civil, Environmental, and Architectural Engineering,
University of Kansas, Lawrence, KS
- 08/2013 – 08/2019: Assistant Professor
Department of Civil, Environmental, and Architectural Engineering,
University of Kansas, Lawrence, KS
- 08/2010 – 08/2013: Graduate Research Assistant
Department of Civil, Environmental, and Architectural Engineering,
University of Colorado, Boulder, CO
- 08/2009 – 05/2010: Graduate Teaching Assistant
Department of Civil, Construction, and Environmental Engineering,
University of Alabama, Tuscaloosa, AL
- 01/2007 – 08/2009: Graduate Research Assistant
School of Civil Engineering,
Georgia Institute of Technology, Atlanta, GA
- 02/2005 – 08/2006: Construction Superintendent/Project Manager
Vietnam Design, Construction and Consultant Corporation
Hanoi, Vietnam
- 08/2003 – 02/2005: Structural Engineer
Vietnam Water, Sanitation and Environmental Company
Hanoi, Vietnam

III. PROFESSIONAL ORGANIZATIONS

- Member, ASCE - Construction Research Council, 2014 - Present
- Member, ASCE - Construction Institute (CI), 2013 - Present
- Member, TRB – Standing Committee on Construction Management (AKC10) Committee, 2014 – Present
- Member, TRB – Standing Committee on Project Delivery Methods (AKC20), 2014 – Present
- Member, TRB Subcommittee on Information Systems 2014 – Present
- Member, TRB Subcommittee on Quality Assurance Management for Alternative Project Delivery (AKC 20/AKC30), 2015 – Present
- Member, DBIA – Design-Build Institute of America, 2015 - Present
- Member, ASEE – American Society of Engineering Education, 2013 – 2017
- Member, AACE – Association for the Advancement of Cost Engineering, 2012 - Present

- Member, IRF – International Road Federation, 2008 – Present

IV. AWARDS AND HONORS

- 2022 David A. and Patricia P. Ross Chair’s Council Associate Professor
- 2021 American Association of State and Highway Transportation Officials (AASHTO), Sweet Sixteen High Value Research Award for the SDDOT project entitled “Maintenance Decision Support System (MDSS) Operation Plan” voted and selected by the AASHTO Research Advisory Committee (RAC).
- 2020 AASHTO-NCHRP Alert as a special report on the project entitled “Emerging Technologies for Construction Delivery”
- 2020 The 1st place Transportation Research Board (TRB) poster presentation
- 2019 AASHTO-NCHRP Alert as a special report on the project entitled “Staffing for Alternative Contracting Methods”
- 2018 CEAE Chair’s Council Assistant Professor
- 2016 NSF CAREER Writing Workshop
- 2014 ASCE ExCEED Teaching Fellowship
- 2012 The Association for the Advancement of Cost Engineering (AACE) Scholarship
- 2008 The IRF Traditional and Executive Leadership Fellow, International Road Federation

V. PROFESSIONAL CERTIFICATES

- *Professional Engineer (PE)*, December 2017
- *Design-Build Professional (DBIA)*, October 2016

VI. PRIMARY RESEARCH INTERESTS

- Alternative project delivery and contracting methods
- Risk-based inspection methodology for highway construction and maintenance
- Interfaces of construction engineering, project management, and technology
- Risk analysis and decision making in improving sustainable and reliable civil infrastructure
- Subjective knowledge elicitation techniques for infrastructure decisions
- Fuzzy machine learning techniques for improved construction project analysis and delivery
- Artificial intelligence/machine learning (AI/ML) and emerging technologies for civil infrastructure projects
- Construction safety/work zone safety
- Asset management: risk-informed decision approaches
- Construction quality control and quality assurance

VII. PRIMARY TEACHING INTERESTS

- Construction engineering
- Engineering risk and decision analysis
- Alternative project delivery methods
- Applied statistics and probabilities for civil infrastructure systems
- Construction quality control and quality assurance
- Project planning, scheduling and cost estimating
- Construction equipment and methods
- Construction technologies

VIII. RESEARCH GRANTS

- G1. NCHRP 10-119: Guidance for Implementing Utility Investigation in Alignment with Project Delivery, *National Cooperative Highway Research Program*, March 2023 – April 2025 (\$400,000 Total — \$75,000 KU), KU-PI, with PI, J. Shane, Iowa State University).
- G2. NCHRP 10-111: Guide for 3D Model Viewers for Construction Inspection, *National Cooperative Highway Research Program*, November 2022 – June 2025 (\$400,000 Total — \$110,000 KU) KU-PI, with PI, R. Sturgill, Iowa State University).
- G3. University of Transportation Center (UTC)/Region 7 Mid-America Transportation Center for Transportation Safety and Equity, *U.S. Department of Transportation*, May 2023 – May 2028 (\$15,000,000 Total — \$2,250,000 KU) (Co-PI with KU-PI, S. Schrock, University of Nebraska Lincoln leading).
- G4. NCHRP 10-112: Guidelines for Digital Technologies and Systems for Remote Construction Inspection for Highway Infrastructure Projects, *National Cooperative Highway Research Program*, November 2022 – June 2025 (\$500,000 Total — \$48,000 KU) KU-PI, with PI, Y. Turkan, Oregon State University).
- G5. KTRAN RE KU-15: Implementation of Constructability Reviews for Highway Construction Projects in KDOT: Best Practices and Key Lessons, *Kansas Department of Transportation*, September 2023 – August 2025 (PI, \$65,820 Total).
- G6. NCHRP 23-05: Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure, *National Cooperative Highway Research Program*, July 2020 – July 2022 (\$450,000 Total — \$80,000 KU), KU-PI, with PI C. Harper, Colorado State University).
- G7. KTRAN RE 0853: Evaluation of Quality Control and Quality Assurance for Alternative Contracting Projects: Implementation Strategies and Key Lessons for KDOT, *Kansas Department of Transportation*, July 2022 – August 2024 (PI, \$62,330 Total).
- G8. ACRP 01-45: Selecting, Procuring, and Implementing Airport Capital Project Delivery Methods, *Airport Cooperative Research Program*, Federal Aviation Administration, December 2020 – November 2022 (\$450,000 Total — \$85,000 KU), KU-PI, with PI S. Scott, HKA Global).

- G9. NCHRP 10-102: Guidebook for Risk-Based Construction Inspection, *National Cooperative Highway Research Program*, June 2019 – June 2022 (\$450,000 Total — \$130,000 KU), KU-PI, with PI S. Scott, HKA Global).
- G10. KTRAN 0817-01: Development of Risk-Based Protocol for KDOT Construction Inspection – Phase 2, *Kansas Department of Transportation*, July 2020 – August 2022 (PI, \$93,100 Total).
- G11. Roundy, J. (Principal), Husic, A. (Co-Principal), Hansen, A. (Co-Principal), Tran, D. (Co-Principal), Lequesne, R. D. (Co-Principal), Young, B. (Co-Principal), Misra, A. (Co-Principal), "Integrating PYTHON Based Active Learning Modules into the CEAE Curriculum," CTE Course Transformation Grant, \$3,000 (March 2021 -May 2022).
- G12. KTRAN KU 20-03: Snowplow Truck Route Optimization for Kansas's Roadway System (Phase I), *Kansas Department of Transportation*, July 2019 – August 2021 (PI, \$98,000 Total).
- G13. NCHRP 10-99: Guidebook for Implementing Constructability Across the Entire Project Development Process: NEPA to Final Design, *National Cooperative Highway Research Program*, January 2019 – January 2021 (\$450,000 Total — \$70,000 KU), KU-PI, with PI Edward Minchin, University of Florida.
- G14. KTRAN RE-0754-01: Development of Risk-Based Protocol for KDOT Construction Inspection – Phase 1, *Kansas Department of Transportation*, July 2018 – August 2020 (PI, \$70,000 Total).
- G15. An Integrated Framework for Modeling Project Delivery Decisions for Large-Scale Infrastructure Projects, *University of Kansas General Research Fund*, June 2018 to July 2019 (PI, \$3,500)
- G16. NCHRP 49-02: Emerging Technologies for Construction Delivery, *National Cooperative Highway Research Program*, November 2017 – January 2019 (\$45,000 Total — \$14,000 KU), KU-PI, with PI Chris Harper, Louisiana State University.
- G17. Maintenance Decision Support System (MDSS) Operation Plan, *South Dakota Department of Transportation*, September 2016 – March 2018 (\$100,000 Total – \$35,000 KU), KU-PI, with PI Chris Harper, Louisiana State University)
- G18. NCHRP 48-04: Staffing for Alternative Contracting Methods, *National Cooperative Highway Research Program*, November 2016 – January 2018 (PI, \$45,000 Total).
- G19. Exploring the Use of 3D Laser Scanners for Rural Bridge Inspection and Assessment in Kansas, *University of Kansas General Research Fund*, May 2016 to June 2017 (PI, \$7,000 Total)
- G20. Review of WSDOT's Implementation of Design-Build Project Delivery, *State of Washington*, September 2015 – April 2017 (\$440,000 Total – \$22,000 KU), KU- PI with PI: S. Scott (Hill International).
- G21. NCHRP 47-06: Strategic Program Delivery Methods, *National Cooperative Highway Research Program*, November 2015 – October 2016 (PI, \$45,000 Total).

- G22. FHWA Quantification of Cost, Benefits and Risk Associated with Alternate Contracting Methods and Accelerated Performance Specifications, *Federal Highway Administration (FHWA DTFH61-13-R-00019)*, Nov. 2013 – Dec. 2015 (\$672,186 Total — \$63,200 KU), KU-PI, with PI Keith Molenaar, University of Colorado.
- G23. FHWA Development and Delivery of Cost and Schedule Risk Analysis Template, *Federal Highway Administration (FHWA DTFH61-11-D9-T-13007)*, Sep. 2013 – May. 2015 (\$144,749 Total — \$40,000 KU), KU-PI, with PI Keith Molenaar, University of Colorado.
- G24. NCHRP 45-02: Practices for Developing Transparent Best Value Procedures, *National Cooperative Highway Research Program*, Oct. 2013 – Oct. 2014 (\$40,000 Total — \$30,000 KU), KU-PI, with PI Keith Molenaar, University of Colorado.
- G25. FHWA/TRI Innovative Contracting Methods and Accelerated Performance Specifications: Risks and Opportunities, *University of Kansas Transportation Research Institute (TRI)*, Jan. 2014 – August. 2014 (PI, \$40,941 Total)
- G26. Optimizing the Risk and Cost of Materials QA Programs *National Cooperative Highway Research Program*, Co-PI with PI: Sidney Scott (Hill International) and Co-PI: Keith Molenaar (University of Colorado), March 2013 to April 2015 (\$400,000 Total – CU/KU: \$ 155,000)
- G27. FHWA/TRI Overview of Best Value Procurement Procedures for Transportation Projects, *University of Kansas Transportation Research Institute (TRI)*, Jan. 2014 – August. 2014 (PI, \$25,940 Total)
- G28. Development and Evaluation of a Risk-based Model for Project Delivery Method Selection in Kansas, *University of Kansas General Research Fund*, May 2014 to June 2015 (PI, \$8,000 Total)

IX. PUBLICATIONS

Peer-Reviewed Journal Articles Published

- J1. Nguyen, P., **Tran, D.**, Scott, S., and Konrath, L. (2024) “Implementation of Progressive Design-Build in Airport Capital Construction Projects,” *Transportation Research Record: Journal of the Transportation Research Board, National Academies (in press)*
- J2. Nguyen, P. † and Tran, D. (2024) “Constraint-Based Snowplow Optimization Model for Winter Maintenance Operations,” *Journal of Transportation Research Part A (In press)*
- J3. Nguyen, P. and **Tran, D.** (2023) “Optimizing Snow and Ice Route Removal Operations using Vehicle Routing Problems and Geographic Information System” *ASCE's Journal of Cold Regions Engineering (In press)*

- J4. Mohamed, M. and **Tran, D.** (2023) “An Approach to Estimating Inspection Staff for Highway Construction Projects” *Transportation Research Record: Journal of the Transportation Research Board, National Academies*.
<https://doi.org/10.1177/03611981221150241>
- J5. Mohamed, M. and **Tran, D.** (2023) “Exploring the Relationships between Project Complexity and Quality Management Approaches in Highway Construction Projects” *Transportation Research Record: Journal of the Transportation Research Board, National Academies*, 2677(5), 390–402.
- J6. Jeon, J., Zhang, Y., Yang, L., Xu, X., Cai, H., and **Tran, D.** (2023) “Risk Breakdown Matrix for Risk-based Inspection of Transportation Infrastructure Projects” *ASCE Journal of Construction Engineering and Management*, 149(4), 04023007.
- J7. Mohamed, M. and **Tran, D.** (2022) “Examining Critical Factors and Their Combination Effects on Quality of Roadway Construction Operations” *International Journal of Construction Management*, 1-12.
- J8. Mohamed, M. and **Tran, D.** (2022) “Content Analysis of e-Inspection Implementation for Highway Infrastructure Construction Projects” *Engineering, Construction and Architectural Management Journal*
- J9. Mohamed, M. and **Tran, D.** (2022) “An Approach to Determination of Risk-based Inspection Workload for Highway Construction Projects” *Transportation Research Record: Journal of the Transportation Research Board, National Academies*, 2676(6), 1-12.
- J10. Harper, C., **Tran, D.**, and Jaselskis, E. (2022) “Implementation of Visualization and Modeling Technologies for Highway Construction” *Journal of Civil Engineering and Construction*, 11(1), 29-40.
- J11. Mohamed, M., Osman, H., and **Tran D.** (2022) “A Hybrid Prioritization Model for Funding School Maintenance and Rehabilitation Projects Using Data Envelopment Analysis and Linear Programming Algorithms” *ASCE Journal of Architectural Engineering*, 28(2), 04022011.
- J12. Nguyen, P. H.D, **Tran, D.**, and Bypaneni, S. (2022) “Exploring the Impact of Project Size on Design-Bid-Build and Design-Build Project Delivery Performance in Highways,” *Journal of Construction Management and Economics*, 39(11), 879-893.
- J13. Smadi, A., **Tran, D.**, and Minchin, E. (2022) “Constructability Reviews Utilization Practices for Traditional and Alternative Project Delivery Methods across State Transportation Agencies” *Transportation Research Record: Journal of the Transportation Research Board, National Academies*, 2676(3), 142-159.
- J14. Mohamed, M. and **Tran D.** (2021) “Risk-based Inspection for Concrete Pavement Construction Using Fuzzy Sets and Bayesian Networks” *Automation in Construction* 128(2021): 103761

- J15. Mohamed, M. and **Tran D.** (2021) “Integrated Framework for Optimizing Inspection Tests of Concrete Pavement Materials” *ASCE Journal of Practice Periodical on Structural Design and Construction*, 26(4): 05021004
- J16. Mathew, S. A., **Tran D.**, and Nguyen, P. H.D. (2021) “Evaluation of Cost Growth Factors in Design-Build Highway Projects Using Structural Equation Modeling” *ASCE Journal of Construction Engineering and Management* 147(7), 04021070.
- J17. Mohamed, M. and **Tran D.** (2021) “A Risk-based Inspection Model for Hot Mix Asphalt (HMA) Pavement Construction Projects” *ASCE Journal of Construction Engineering and Management* 147(6): 04021045.
- J18. Nguyen, L. D and **Tran, D.** (2021) “Measurement of Fuzzy Membership Functions in Construction Risk Assessment,” *ASCE Journal of Construction Engineering and Management*, 147(4): 04021005-1-13
- J19. Mohamed, M. and **Tran D.** (2021) “A Risk-Based Prioritization Approach to Construction Inspections for Transportation Projects” *ASCE Journal of Construction Engineering and Management* 147(1): 04020150-1-14
- J20. Alleman D. and **Tran D. Q.** (2021) “Exploring Progressive Design-Build/Best-Value Delivery Method in Highway Construction” *ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Construction* 13(1): 05020018-1-14
- J21. Nguyen, P. H. D., **Tran D.**, and Lines, B.C. (2020) “An Empirical Inference System for Highway Project Delivery Selection Using Fuzzy Pattern Recognition” *ASCE Journal of Construction Engineering and Management* 146(12): 04020141-1-13
- J22. Harper, C., **Tran, D.**, and Jaselskis, E. (2020) “Exploring Instrumentation and Sensor Technologies for Highway Design and Construction Projects” *Transportation Research Record: Journal of the Transportation Research Board, National Academies* 2674(9): 593-604
- J23. **Tran, D.**, Harper, C., Smadi, A., and Mohamed, M. (2020) “Staffing needs and utilization for alternative contracting methods in highway design and construction” *Engineering, Construction and Architectural Management Journal*, 27(9):2163-2178
- J24. Nguyen, P. H. D., **Tran, D.**, and Lines, B.C. (2020) “Fuzzy Set Theory Approach to Classify Highway Project Characteristics for Delivery Selection” *ASCE Journal of Construction Engineering and Management* 146(5): 04020044
- J25. Alleman D. and **Tran, D.** (2020) “Challenges of Implementing Progressive Design-Build in Highway Construction Projects” *ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 12(1): 04519036.
- J26. Safapour, E., Kermanshachi, S., Kamalirad, S., and **Tran, D.** (2019) “Identifying Effective Project-Based Communication Indicators within Primary and Secondary Stakeholders in Construction Projects” *ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 11(4): 04519028

- J27. Nguyen, L.D., Le-Hoai, L., **Tran, D.**, Dang, C.N, and Nguyen C.V. (2019) “Effect of Project Complexity on Cost and Schedule performance in Transportation Projects,” *Journal of Construction Management and Economics*. 37(7) 384-399.
- J28. Nguyen, P. H. D., Lines, B.C., and **Tran D.** (2018) “Best-Value Procurement in Design-Bid-Build Construction Projects: Empirical Analysis of Selection Outcomes” *ASCE Journal of Construction Engineering and Management*, 144(10), 04018093. (**Top Downloaded Articles in Construction Engineering & Featured in ASCE Smart**)
- J29. Bypaneni, S., P.K and **Tran D.** (2018) “Empirical Identification and Evaluation of Risk in Highway Project Delivery Methods” *ASCE Journal of Management in Engineering*, 34(3): 04018007
- J30. **Tran, D.**, Brihac, A., Nguyen, L.D, and Kwak, Y.H. (2018) “Project Cost Implications of Competitive Guaranteed Maximum Price Contracts” *ASCE Journal of Management in Engineering*, 34(2) 05018001. (**Editor’s Choice paper**).
- J31. Nguyen, L.D., Le-Hoai, L., **Tran, D.**, Dang, C.N, and Nguyen C.V. (2018) “Fuzzy AHP with Application in Evaluating Construction Project Complexity” Book Chapter, *Emerald Group Publishing Limited*, 277-302.
- J32. **Tran, D.**, Diraviam, G. and Minchin, R.E. (2017) “Performance of Highway Design-Bid-Build and Design-Build Projects by Work Types” *ASCE Journal of Construction Engineering and Management*, 04017112-1 - 04017112-9.
- J33. **Tran, D.**, Nguyen, L.D., and Faught, A.M. (2017) “Examination of Communication Processes in Design-Build Project Delivery in Building Construction” *Engineering, Construction and Architectural Management Journal*, 24(6), 1319-1335.
- J34. **Tran, D.**, Molenaar, K. R., and Kolli, B. (2017) “Implementation of Best-Value Procurement for Highway Design and Construction in the United States” *Engineering, Construction and Architectural Management Journal*, 24(5), 774-787.
- J35. Nguyen, L.D. and **Tran, D.** (2017) “Fuzzy AHP-based Decision-Making Framework for Construction Projects” Book Chapter, *Taylor & Francis Group, CRC Press*, 327-346.
- J36. **Tran, D.**, Molenaar, K. R., and Gransberg, D.D. (2016) “Implementing Best-Value Procurement for Design-Bid-Build Highway Projects” *Transportation Research Record: Journal of the Transportation Research Board, National Academies*, No. 2573, 3-10. DOI: 10.3141/2573-04
- J37. Nguyen, L. D, **Tran, D.**, and Chandrawinata, M (2016) “Predicting Safety Risk of Working at Heights Using Bayesian Networks,” *ASCE Journal of Construction Engineering and Management*, 04016041 - 04016041-11
- J38. **Tran, D.** and Molenaar, K. R. (2015) “Risk-based Project Delivery Selection Model for Highway Design and Construction,” *ASCE Journal of Construction Engineering and Management*, 04015041-1 to 004015041-9
- J39. **Tran, D.**, Molenaar, K. R., and Alarcon, L. F. (2015) “A Hybrid Cross-Impact Approach to Predicting Cost and Variance of Project Delivery Decisions for

- Highways,” *ASCE Journal of Infrastructure Systems*, 22(1), 04015017-04015017-12
- J40. **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.
- J41. 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*, 140 (7), 04014021-04014021-9
- J42. **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*, 04014072- 04014072-10.
- J43. **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.
- J44. 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.” *Machine Learning, arXiv preprint: 1404.0752*.
- J45. **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

- C1. Nguyen, P., **Tran, D.**, Scott, S., and Konrath, L. (2024) “Implementation of Progressive Design-Build in Airport Capital Construction Projects,” 103rd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.
- C2. Le, N., **Tran, D.**, and Mohammad, M. (2024) “Examining a Risk-based Inspection Approach to Highway Pavement Construction Projects,” 103rd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.
- C3. Le, N., **Tran, D.**, Harper, C., and Sturgill, R. (2024) “Exploring Inspection Technologies for Highway Infrastructure During Construction and Asset Management,” 103rd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.
- C4. Tummalapudi, D., Harper, C., Elliot, J., **Tran, D.**, and Hoyne, D. (2024) “Recruitment and Retention of Transportation Construction Inspection Staff,” 103rd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.
- C5. Le, N., **Tran, D.**, Sturgill, R., and Harper, C. (2024) “Use of Non-Destructive Testing Technologies for Highway Infrastructure Inspection” *ASCE Construction Research Congress*, Des Moines, Iowa, March 20 – 23.

- C6. Le, N., **Tran, D.**, Sturgill, R., and Harper, C. (2024) “Exploring Remote Sensing and Monitoring Technology for Highway Infrastructure Inspection” *ASCE Construction Research Congress*, Des Moines, Iowa, March 20 – 23. (Accepted)
- C7. Nguyen, P. and **Tran, D.** (2024) “Development of A Practical Project Delivery Selection Tool for Airport Capital Projects” *ASCE Construction Research Congress*, Des Moines, Iowa, March 20 – 23.
- C8. Nguyen, P., **Tran, D.**, and Bypaneni, S. (2024) “Implementing Bayesian Networks in Delivery Selection for Highway Construction Projects” *ASCE Construction Research Congress*, Des Moines, Iowa, March 20 – 23.
- C9. Mohamed, M, and **Tran, D.** (2024) “Examining Risk-based Construction Inspection Practices in Transportation Agencies” *ASCE Construction Research Congress*, Des Moines, Iowa, March 20 – 23.
- C10. Minchin E., Asutosh A.T., and **Tran, D.** (2023) “Merging Constructability into the Preconstruction Process on Virginia’s Largest Construction Project” *102nd Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- C11. Swarup, A and **Tran, D.** (2023) “Exploring Benefits and Challenges in the Implementation of Quality Control Plans for Administering Quality Assurance Specifications in Highways” *102nd Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- C12. Swarup, A and **Tran, D.** (2023) “Examining the Use of Quality Control Plans for Highway Construction Projects” *102nd Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- C13. Mohamed, M., Bataineh, F., **Tran, D.**, Harper, C., and Sturgill, R. (2023) “Assessing the Impacts of Geospatial Technologies on Highway Infrastructure Construction Inspection” *102nd Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- C14. Mohamed, M. and **Tran, D.** (2023) “An Approach to Estimating Inspection Staff for Highway Construction Projects” *102nd Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- C15. Mohamed, M. and **Tran, D.** (2022) “An Approach to Determination of Risk-based Inspection Workload for Highway Construction Projects” *101st Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 9-13.
- C16. Jeon, J., Zhang, Y., Yang, L., Xu, X., Cai, H., and **Tran, D.** (2022) “Risk Breakdown Matrix for Risk-based Inspection of Transportation Infrastructure Projects” *101st Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 9-13.
- C17. Mohamed, M., **Tran, D.**, and Nguyen, P. (2022) “Determination of Factors Influencing Quality of Pavement Construction Projects” *101st Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 9-13.

- C18. Mohamed, M. and **Tran, D.** (2022) “Exploring the Use of Mobile Technologies for Highway Construction Inspection,” *ASCE Construction Research Congress*, Arlington, Virginia, March 9 – 12.
- C19. Nguyen, P. and **Tran, D.** (2022) “Current State of Practice in Selection and Implementation of Airport Capital Project Delivery Methods,” *ASCE Construction Research Congress*, Arlington, Virginia, March 9 – 12.
- C20. Mohamed, M. and **Tran, D.** (2022) “Examination of Contractor Quality Control Plans for Highway Construction Projects,” *ASCE Construction Research Congress*, Arlington, Virginia, March 9 – 12.
- C21. Minchin, R.E.; Asutosh, A.; **Tran, D.**; and Tian, Y. (2022); “The Constructability Review Process in a Small State Highway Agency: A Case Study”; Proceedings of the 4th Euro-Med Structural Engineering and Construction Conference; Leipzig, Germany, June 20-25, 2022.
- C22. Mohamed, M. and **Tran, D.** (2022); “Opportunities and Barriers of Technology-Generated Documentation for Highway Construction Inspection”; Proceedings of the 4th Euro-Med Structural Engineering and Construction Conference; Leipzig, Germany, June 20-25, 2022.
- C23. Mohamed, M., Nguyen, P., and **Tran, D.** (2021). “Preliminary Analysis of Emerging Visualization and Image Modeling Technologies for Highway Construction Inspection,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- C24. Mohamed, M. and **Tran, D.** (2021). “Highway Construction Program Delivery Approaches: The View from the Field,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- C25. Nguyen, P. and **Tran, D.** (2021). “Developing a GIS-Based Fleet Optimization Model for Winter Maintenance Operations,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- C26. Nguyen, P., Mohamed, M., and **Tran, D.** (2021). “Examining Skill Sets for Successfully Managing Alternative Contracting Methods for Highway Projects and Programs,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- C27. Mohamed, M. and **Tran, D.** (2021) “Inspection Workload Reduction Approaches to Highway Construction Projects,” *100th Proc. Annual Transportation Research Board Meeting*, Virtual Conference, January 5-29.
- C28. Smadi, A., **Tran, D.**, and Minchin, E. (2021) “Constructability Reviews Utilization across Alternative Project Delivery Methods,” *100th Proc. Annual Transportation Research Board Meeting*, Virtual Conference, January 5-29
- C29. Mohamed, M. and **Tran, D.** (2021) “A Risk-based Framework for Optimizing Inspection Tests of Concrete Pavement Materials,” *100th Proc. Annual Transportation Research Board Meeting*, Virtual Conference, January 5-29.

- C30. Minchin, R.E.; Myers, M.; **Tran, D.**; Tian, Y. (2020); “A Synthesis of Constructability on Transportation Construction”; Proceedings of the 3rd Euro-Med Structural Engineering and Construction Conference; Euro-Med SEC; Limassol, Cyprus, August 3-8
- C31. Nguyen, P. H. D., **Tran, D.**, and Lines, B.C. (2020) “Identifying Common Groups of Highway Projects Using Fuzzy Cluster Analysis,” *ASCE Construction Research Congress*, Temple, Arizona, March 8 – 10.
- C32. Smadi, A. and **Tran, D.** (2020) “A Proposed Approach for Determining Appropriate Constructability Reviews Level for Highway Construction Projects,” *ASCE Construction Research Congress*, Temple, Arizona, March 8 – 10.
- C33. Mohamed, M. and **Tran, D.** (2020) “Effective Strategies for Allocating Construction Inspection Resources in Highway Projects,” *ASCE Construction Research Congress*, Temple, Arizona, March 8 – 10.
- C34. Nguyen, P. H. D., Lines, B.C, and **Tran, D.** (2020) “Exploring the Adaption of Lean Principles to Highway Construction,” *ASCE Construction Research Congress*, Temple, Arizona, March 8 – 10.
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- C38. Mohamed, M. and **Tran, D.** (2019). “Implementation of Bridge Bundling Delivery Method Strategy,” *7th International Construction Specialty Conference/ ASCE Construction Research Congress*, Laval, June 12 – 15.
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- C43. Nguyen, P., **Tran, D.**, and Lines, B. (2019) “Implementation of Fuzzy Cluster Analysis to Partition Cost Performance into Typical Groups Based Upon Project Characteristics,” *ASC 55th Annual International Conference*, Denver, CO, April 10 – 13.
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- C48. Alleman, D., **Tran, D.**, and Folden, J. (2019). “Progress Design-Build: The Next Evolution of Project Delivery in Highway Construction,” 98th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 13-17.
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- C52. **Tran, D.** and Scott, S. (2018) “Staffing Practices for Design-Build Projects: Lessons Learned from Washington State DOT” 97th *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.
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- C56. Diraviam, G. and **Tran, D.** (2017) "An Empirical Performance Comparison of Design-Bid-Build and Design-Build Highway Projects by Work Types" *96th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- C57. Alleman, D., **Tran, D.**, Antione, A., and Molenaar, K. (2017) "Engineering Estimate Accuracy of Highway Construction Alternative Delivery Methods" *The 2017 American Association of Cost Engineering (AACE) International Annual Meeting*, Orlando, FL., June 11-14.
- C58. Nguyen, L.D., **Tran, D.**, Nguyen, A.T., and Le-Hoai, L. (2016) "Computational Model for Measuring Project Complexity in Construction" North American Fuzzy Information Processing Society (NAFIPS), October 31 - November 4, El Paso, Texas.
- C59. **Tran, D.**, Molenaar, K. R., and Gransberg, D.D. (2016) "Implementing Best-Value Procurement for Design-Bid-Build Highway Projects" *95th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 10-14.
- C60. **Tran, D.** and Bypaneni, S. P.K. (2016) "Impact of Correlation on Cost-Risk Analysis for Construction Highway Projects," *ASCE Construction Research Congress*, San Juan, Puerto Rico, May 31 – June 2.
- C61. Nguyen, L. D and **Tran, D.** (2016) "An Approach to Assessment of Fall Risk for Building Construction," *ASCE Construction Research Congress*, San Juan, Puerto Rico, May 31 – June 2.
- C62. **Tran, D.**, Lampe, J.C., Bypaneni, S. P.K., and Molenaar, K.R. (2016) "An Empirical Comparison of Cost Growth between Highway Design-Bid-Build and Design-Build Projects by Project Size," *ASCE Construction Research Congress*, San Juan, Puerto Rico, May 31 – June 2.
- C63. Kolli, B.R. and **Tran, D.** (2015). "The Use of Best Value Procurement for Highway Design-Bid-Build Projects" *5th International Construction Specialty Conference/ ASCE Construction Research Congress*, Vancouver, June 7-10.
- C64. Faught, A. and **Tran, D.** (2015). "Communication Issues in Design-Build Project Delivery Method" *5th International Construction Specialty Conference/ ASCE Construction Research Congress*, Vancouver, June 7-10.
- C65. 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., January 11-15.

- C66. **Tran, D.** and Molenaar, K. R. (2014). “Delivery Risk Factors for Highway Construction Manage/General Contractor (CMGC) Projects” 93rd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 11-15.
- C67. Harper C.M, **Tran, D.**, Tim, M., and Molenaar, K. R. (2014). “A Project Delivery Selection Matrix for Highway Design and Construction” 93rd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 11-15.
- C68. **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.
- C69. 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.
- C70. **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,” 92nd *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 13-17.
- C71. **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.

Research Reports

- R1. Scott, S., **Tran, D.**, Abraham, D., others. (2023). “NCHRP 10-102: A Guidebook for Risk-Based Construction Inspection” *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C. (in press)
- R2. Scott, S., **Tran, D.**, and others (2023). “ACRP 01-45: Selecting, Procuring, and Implementing Airport Capital Project Delivery Methods”, *Airport Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C. (in press)
- R3. Minchin, R., **Tran, D.**, and others (2023) “NCHRP 10-99: Framework for Implementing Constructability Across the Entire Project Development Process” *Transportation Research Board Meeting*, Washington, D.C. (in press)
- R4. Harper, **Tran, D.**, and others (2023). “NCHRP 23-05: Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure”, Research Report 1027. *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C., 67 pp.
- R5. **Tran, D.**, and Mohamed, M. (2023). A Risk-Based Approach for KDOT Construction Inspection: Implementation, *Kansas Department of Transportation, Research Report*. July, 134 pp.

- R6. **Tran, D.**, and Nguyen, P. (2022). Snowplow Truck Route Optimization for Kansas's Roadway System, *Kansas Department of Transportation, Research Report*, June, 136 pp.
- R7. **Tran, D.**, and Mohamed, M. (2020). Development of Risk-Based Protocol for KDOT Construction Inspection, *Kansas Department of Transportation, Research Report*. July, 139 pp.
- R8. Harper, C., **Tran, D.**, and Jaselskis, E. (2019). Emerging Technologies for Construction Delivery, *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C., 176 pp. (***This report was selected for AASHTO-NCHRP Alert as a special report***).
- R9. **Tran, D.**, Gransberg, D., and Harper, C. (2018). Staffing for Alternative Contracting Methods, *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C., 127 pp. (***This report was selected for AASHTO-NCHRP Alert as a special report***).
- R10. **Tran, D.**, Harper, C., and Minchin, R. E. (2017). Strategic Program Delivery Methods, NCHRP Synthesis 504, ISBN 978-0-309-38991-4, *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C., March 2017, 101 pp.
- R11. Harper, C., **Tran, D.**, and Huang, Y. (2017). Maintenance Decision Support System (MDSS) Operation Plan, *South Dakota Department of Transportation, Research Report SD 2016-07*. October 2017, 96 pp.
- R12. Scott, S., Loulakis, M., **Tran, D.**, Njord, J., Parkinson, R., and Henk, G. (2016). WSDOT's Implementation of Design-Build Project Delivery, *Report to the Joint Transportation Committee, State of Washington*, Olympia, Washington, December 2016, 126 pp
- R13. Molenaar, K. R., **Tran, D.**, and Scott, S. (2017). Quantification of Cost, Benefits and Risk associated with Alternate Contracting Methods and Accelerated Performance Specifications—Final Research Report (Volume I), *Federal Highway Administration*, Washington, D.C., April 2017, 123 pp.
- R14. Molenaar, K. R., **Tran, D.**, and Scott, S. (2017). Quantification of Cost, Benefits and Risk associated with Alternate Contracting Methods and Accelerated Performance Specifications—Research Product (Volume II), *Federal Highway Administration*, Washington, D.C., April 2017, 287 pp
- R15. **Tran, D.** and Molenaar, K.R. (2015). Development and Delivery of Cost and Schedule Risk Analysis Template, A final report to Task Order #13-007, *Federal Highway Administration*, Washington, DC, August 2014, 72 pp
- R16. Molenaar, K. R and **Tran, D.** (2015). Practices for Developing Transportation Best Value Selection Procedures, NCHRP Synthesis 471, ISBN 978-0-309-27169-1, *National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C., March 2015, 76 pp.

- R17. 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.
- R18. **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
- R19. **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
- R20. **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.
- R21. **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.
- R22. **Tran, D.** (2009). “Toward Improved Flange Bracing Requirements for Metal Building Frame Systems” M.S. Thesis, Georgia Institute of Technology, Atlanta, GA, May, 397pp.

Tech Briefs and White Papers:

- R23. Harper, **Tran, D.**, and others (2023). “NCHRP 23-05: Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure”, *Technical Memorandum. National Cooperative Research Program, Transportation Research Board of the National Academies*, Washington, D.C.
- R24. **Tran, D.**, Harper, C., and Minchin, R. E. (2018). “Strategic Program Delivery Methods,” *Transportation Research News, Transportation Research Board of the National Academies*, No. 314, March-April 2008, pp. 35-37
- R25. Molenaar, K. R., **Tran, D.**, and Scott, S. (2016). Alternative Contracting Method Performance in US Highway Construction, *Federal Highway Administration TechBrief*, Washington, D.C., September 2016, 20 pp
- R26. Scott, S., Loulakis, M., **Tran, D.**, Njord, J., Parkinson, R., and Henk, G. (2016). Best Practices in Design-Build Project Delivery, White Paper, *Report to the Joint Transportation Committee, State of Washington*, Olympia, Washington, May 2016, 29 pp
- R27. Scott, S., Loulakis, M., **Tran, D.**, Njord, J., Parkinson, R., and Henk, G. (2016). Evaluate WSDOT’s Current use of Design-Build Project Delivery, White Paper, *Report to the Joint Transportation Committee, State of Washington*, Olympia, Washington, May 2016, 21 pp

- R28. Scott, S., Loulakis, M., **Tran, D.**, Njord, J., Parkinson, R., and Henk, G. (2015). Basic Overview of Design-Build vs. Design-Bid-Build, White Paper, *Report to the Joint Transportation Committee, State of Washington*, Olympia, Washington, November 2015, 25 pp

X. PRESENTATIONS

Underlining denotes the presenter.

- P1. Minchin E., Asutosh A.T., and Tran, D. (2023) “Merging Constructability into the Preconstruction Process on Virginia’s Largest Construction Project” 102nd Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 8-12.
- P2. Swarup, A and Tran, D. (2023) “Exploring Benefits and Challenges in the Implementation of Quality Control Plans for Administering Quality Assurance Specifications in Highways” 102nd Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 8-12.
- P3. Swarup, A and Tran, D. (2023) “Examining the Use of Quality Control Plans for Highway Construction Projects” 102nd Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 8-12.
- P4. Mohamed, M., Bataineh, F., Tran, D., Harper, C., and Sturgill, R. (2023) “Assessing the Impacts of Geospatial Technologies on Highway Infrastructure Construction Inspection” 102nd Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 8-12.
- P5. Mohamed, M. and Tran, D. (2023) “An Approach to Estimating Inspection Staff for Highway Construction Projects” 102nd Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 8-12.
- P6. Tran, D. (2023) “Agency Use of Quality Control Plans for Administering Quality Assurance Specifications” 102nd Proc. Annual Transportation Research Board Meeting, AKC30 Committee Meeting, Washington, D.C., January 8-12.
- P7. Harper, C. and Tran, D. (2023) “Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure” 102nd Proc. Annual Transportation Research Board Meeting, AKC40 Committee Meeting Washington, D.C., January 8-12.
- P8. Scott, S. and Tran, D. (2023) “A Guidebook for Risk-Based Construction Inspection” 102nd Proc. Annual Transportation Research Board Meeting, AKC10 Committee Meeting Washington, D.C., January 8-12.
- P9. Mohamed, M. and Tran, D. (2022) “An Approach to Determination of Risk-based Inspection Workload for Highway Construction Projects” 101st Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 9-13.
- P10. Jeon, J., Zhang, Y., Yang, L., Xu, X., Cai, H., and Tran, D. (2022) “Risk Breakdown Matrix for Risk-based Inspection of Transportation Infrastructure Projects” 101st Proc. Annual Transportation Research Board Meeting, Washington, D.C., January 9-13.

- P11. Mohamed, M., Tran, D., and Nguyen, P. (2022) “Determination of Factors Influencing Quality of Pavement Construction Projects” 101st *Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 9-13.
- P12. Mohamed, M. and Tran, D. (2022) “Exploring the Use of Mobile Technologies for Highway Construction Inspection,” *ASCE Construction Research Congress*, Arlington, Virginia, March 9 – 12.
- P13. Nguyen, P. and Tran, D. (2022) “Current State of Practice in Selection and Implementation of Airport Capital Project Delivery Methods,” *ASCE Construction Research Congress*, Arlington, Virginia, March 9 – 12.
- P14. Mohamed, M. and Tran, D. (2022) “Examination of Contractor Quality Control Plans for Highway Construction Projects,” *ASCE Construction Research Congress*, Arlington, Virginia, March 9 – 12.
- P15. Minchin, R.E.; Asutosh, A.; Tran, D.; and Tian, Y. (2022); “The Constructability Review Process in a Small State Highway Agency: A Case Study”; Proceedings of the 4th Euro-Med Structural Engineering and Construction Conference; Leipzig, Germany, June 20-25, 2022.
- P16. Mohamed, M. and Tran, D. (2022); “Opportunities and Barriers of Technology-Generated Documentation for Highway Construction Inspection”; Proceedings of the 4th Euro-Med Structural Engineering and Construction Conference; Leipzig, Germany, June 20-25, 2022.
- P17. Mohamed, M., Nguyen, P., and Tran, D. (2021). “Preliminary Analysis of Emerging Visualization and Image Modeling Technologies for Highway Construction Inspection,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- P18. Mohamed, M. and Tran, D. (2021). “Highway Construction Program Delivery Approaches: The View from the Field,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- P19. Nguyen, P. and Tran, D. (2021). “Developing a GIS-Based Fleet Optimization Model for Winter Maintenance Operations,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29.
- P20. Nguyen, P., Mohamed, M., and Tran, D. (2021). “Examining Skill Sets for Successfully Managing Alternative Contracting Methods for Highway Projects and Programs,” *8th International Construction Specialty Conference/ ASCE Construction Research Congress*, Virtual Conference, May 26-29
- P21. Mohamed, M. and Tran, D. (2021) “Inspection Workload Reduction Approaches to Highway Construction Projects,” 100th *Proc. Annual Transportation Research Board Meeting*, Virtual Conference, January 5-29.
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- P32. Harper, C., Tran, D., and Jaselskis, E. (2019) “Exploring Instrumentation and Sensor Technologies for Highway Design and Construction Projects” *TRB Webinar*, September 28, 2019
- P33. Mohamed, M. and Tran, D. (2019). “Implementation of Bridge Bundling Delivery Method Strategy,” *7th International Construction Specialty Conference/ ASCE Construction Research Congress*, Laval, June 12 – 15.
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- P36. Smadi, A. and Tran, D. (2019). “Developing a Constructability implementation framework for Transportation Projects,” *7th International Construction Specialty Conference/ ASCE Construction Research Congress*, Laval, June 12 – 15.
- P37. Tran, D., Smadi, A., Harper, C.M., and Gransberg, D.D. (2019). “Examination of Organizational Structures for Alternative Contracting Methods in Highways,” *98th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 13-17.
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- P43. Minchin, R., Tran, D., and Tian, Y. (2019). “A report on the NCHRP 10-99: Framework for Implementing Constructability Across the Entire Project Development Process” *98th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 13-17.
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- P45. Tran, D., Harper, C., and Gransberg, D. (2018) “Staffing Practices for Alternative Contracting Methods” *97th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.
- P46. Harper, C and Tran, D. (2018) “Emerging Technologies for Construction Delivery: Overview” *97th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 7-11.

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- P48. Bypaneni, S., Tran, D., and Nguyen L.D. (2018) “A Bayesian Network Approach to Selecting Project Delivery Methods,” *ASCE Construction Research Congress*, New Orleans, Louisiana, April 2 – 4.
- P49. Nguyen, P., Lines, B., and Tran, D. (2018) “Best-Value Procurement in Design-Bid-Build Construction Projects: Empirical Analysis of Selection Outcomes,” *ASCE Construction Research Congress*, New Orleans, Louisiana, April 2 – 4.
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- P51. Upare, A., Tran, D., and Lines, B. (2017). “Examination of Transportation Program Delivery: Preliminary Analysis,” *6th International Construction Specialty Conference/ ASCE Construction Research Congress*, Vancouver, May 31 – June 3.
- P52. Nguyen, P., Lines, B. and Tran, D. (2017). “Implementation of Lean Principles in Construction: A Literature Review,” *6th International Construction Specialty Conference/ ASCE Construction Research Congress*, Vancouver, May 31 – June 3.
- P53. Bypaneni, S. and Tran, D. (2017) “Empirical Documentation of Project Delivery Risks for Highway Design and Construction” *96th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- P54. Diraviam, G. and Tran, D. (2017) “An Empirical Performance Comparison of Design-Bid-Build and Design-Build Highway Projects by Work Types” *96th Proc. Annual Transportation Research Board Meeting*, Washington, D.C., January 8-12.
- P55. Alleman, D., Tran, D., Antione, A., and Molenaar, K. (2017) “Engineering Estimate Accuracy of Highway Construction Alternative Delivery Methods” *The 2017 American Association of Cost Engineering (AACE) International Annual Meeting*, Orlando, FL., June 11-14
- P56. Nguyen, L.D., Tran, D, Nguyen, A.T., and Le-Hoai, L. (2016) “Computational Model for Measuring Project Complexity in Construction” *North American Fuzzy Information Processing Society (NAFIPS)*, October 31 to November 4, El Paso, Texas.
- P57. Tran, D. and Bypaneni, S. P.K. (2016) “Impact of Correlation on Cost-Risk Analysis for Construction Highway Projects,” *ASCE Construction Research Congress*, San Juan, Puerto Rico, May 31 – June 2, 2016
- P58. Nguyen, L. D and Tran, D. (2016) “An Approach to Assessment of Fall Risk for Building Construction,” *ASCE Construction Research Congress*, San Juan, Puerto Rico, May 31 – June 2, 2016
- P59. Tran, D., Lampe, J.C., Bypaneni, S. P.K., and Molenaar, K.R. (2016) “An Empirical Comparison of Cost Growth between Highway Design-Bid-Build and

- Design-Build Projects by Project Size,” *ASCE Construction Research Congress*, San Juan, Puerto Rico, May 31 – June 2, 2016.
- P60. Tran, D. and Molenaar, K. R. (2016) “Transparent Best Value Selection Procedures” *TRB Webinar*, April 27, 2016
- P61. Tran, D., Molenaar, K. R., and Gransberg, D.D. (2016) “Implementing Best-Value Procurement for Design-Bid-Build Highway Projects” *TRB 95th Annual Meeting*, Washington D.C, January 10-14, 2016
- P62. Elliott, B. and Tran, D. (2016) “Cost Estimating Modeling System for Risk Management” *TRB 95th Annual Meeting*, Washington D.C, January 10-14, 2016
- P63. Bypaneni, S. and Tran, D. (2016). “Project Performance between Design-Bid-Build and Design-Build in Highways” *KU Graduate Research Competition*, University of Kansas, March 29, 2016.
- P64. Upare, A. G. and Tran, D. (2016). “Strategic Program Delivery Methods for Transportation Agencies” *9th Annual GEA Poster and Presentation Competition*, University of Kansas, April 7, 2016.
- P65. Diraviam, G. and Tran, D. (2016). “Empirical Cost-Risk Analysis to Select Project Delivery Methods Using Generalized Linear Model” *9th Annual GEA Poster and Presentation Competition*, University of Kansas, April 7, 2016.
- P66. Farooq, M.S. and Tran, D. (2016). “Application of 3D Laser Scanning in Bridge Inspection and Assessment” *9th Annual GEA Poster and Presentation Competition*, University of Kansas, April 7, 2016.
- P67. Wilson, C., Tran, D., and Molenaar, K. R. (2015). "Program Risk Management Approach to Reducing Cost Uncertainty in Highway Projects," *TRB 94th Annual Meeting*, Washington, DC, January 11-15, 2015.
- P68. Tran, D. (2015), "Practices for Developing Transparent Best Value Selection Procedures," Presentation to the TRB Committee of Project Delivery Method, *TRB 94th Annual Meeting*, Washington, DC, January 11-15, 2015.
- P69. Lampe, C. J. and Tran, D. (2015). “Cost and Schedule Reduction in Alternative Highway Construction Project Delivery – An Empirical Study” *8th Annual GEA Poster and Presentation Competition*, University of Kansas, April 16, 2015 (2nd place award)
- P70. Kolli, B.R. and Tran, D. (2015). “Best Value Approach to Highway Projects: Transparency and Innovation” *8th Annual GEA Poster and Presentation Competition*, University of Kansas, April 16, 2015
- P71. Bypaneni, S. P.K. and Tran, D. (2015). “How to Assess Correlation in Risk Analysis Frameworks for Construction Project?” *8th Annual GEA Poster and Presentation Competition*, University of Kansas, April 16, 2015
- P72. Tran, D., Lester, H., and Sobin, N. (2014). “Toward Statistics on Construction Engineering and Management Research” *ASCE Construction Research Congress*, Atlanta, GA, May 2014.

- P73. 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.
- P74. Lester H. and D. Tran (2014) “Construction Engineering and Management Research Analytics”, *IIE Industrial and Systems Engineering Research Conference*, Montreal (ISERC2014), Canada, June 2014
- P75. Tran, D. and Glavinich, T. E. (2014). “Evaluation of CW/CE classification” Foundation of Electrical Construction, ELECTRI Council Meeting, Boca Raton, FL, January 2014.
- P76. 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.
- P77. 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.
- P78. Tran, D (2014). “Practical Engineering Risk Management” 2014 KU CEAE Professional Development Series, Overland Park, KS, March 17, 2014.
- P79. Tran, D (2013). “Delivery Selection Matrix” Presentation to K-TRAN Research Need Day, Topeka, KS. August 28, 2013.
- P80. Tran, D (2013). “Risk Assessment and Allocation for Highway Projects” Presentation to K-TRAN Research Need Day, Topeka, KS, August 28, 2013.
- P81. 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.
- P82. Tran, D. (2012). “Cross-Impact Analysis Technique for Risk-based Project Delivery Selection Model” *ASCE Construction Research Congress*, West Lafayette, IN, May.
- P83. 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.
- P84. Molenaar, K.R. and Tran, D. (2011). “CDOT – ICAC Project Delivery Selection Matrix: Risk Workshop” Denver, CO, January.
- P85. 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.
- P86. 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.

- P87. 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.
- P88. 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.

XI. INDIVIDUAL STUDENT GUIDANCE

A. Post-Doctoral Researcher

1. Nguyen, Phuong, Summer 2020- Fall 2021
2. Mohamed, Mamdouh, Summer 2022

B. Ph.D. Students – Committee Chair

1. Nhien, Le, “Impact of technologies on risk-based inspection methodology in highway construction” Fall 2022- Present (Current)
2. Swarup, Aaroh, “Investigation of blockchain technologies and smart contracts for infrastructure construction inspection” Fall 2021- Present (Temporary leave for family emergency in Spring 2023).
3. Al-Bataineh, Fuad, Graduated Fall 2022, “Implementation of technologies for construction inspection” (*Assistant Professor at the Albayt University, Jordan*)
4. Mohamed, Mamdouh, Graduated Spring 2022, “Development of a Risk-based Approach to Construction Inspection and Material QA Programs” (*Assistant Professor at Lawrence Technological University, Michigan*)
5. Al-Smadi, Adi, Graduated, Summer 2021, “Integration Framework for Implementing Constructability for Highway Design and Construction Projects.”
6. Nguyen, Phuong, Graduated, Summer 2020, “Fuzzy Pattern Recognition of Project Performance to Project Delivery Selection” Chair w/Brian Lines as a Co-Chair (*Assistant Professor at South Dakota University*)
7. Bypaneni, Sai, Graduated, Spring 2018, “A Bayesian Network-based Decision Framework for Selecting Project Delivery Methods in Highway Construction.”
8. Eilers, Heather, Graduated, Spring 2015, “Impact of Sustainable Business Practices on Strategic Performance for Commercial Building Contractors” Chair (original chair Thomas Glavinich passed away in 2014)

C. Ph.D. Students – Committee Member

1. Kassa, Rebecca, Fall 2021 – Present
2. Ogundare, Tolulope, Fall 2022 – Present

3. Enderami, Amin, Graduated Fall 2022, “Functionality, Access, and Implications: Assessing the Role of Organizations in Community Disaster Resilience”.
4. Maali, Omar, Graduated Spring 2022, “Change Management in the AEC industry: Modeling levels of success in change adoption and employee well-being”.
5. Li, Hankun, Graduated Spring 2022. “Technical Improvements on Camera-Aided Lighting Measurement”.
6. Shalwani, Amirali, Graduated Spring 2021 “Empirical Analysis of Issue Management in Small Vertical Construction Projects: Relationship between Project Performance, Project Team Actions, and Different Issue Types Member”.
7. De Angelo, Michele, Graduated Fall 2021, “The Role of Higher Order and Higher Gradient Theories in the Development of Mechanical Metamaterials.”
8. Tiruneh, Getaneh, Graduated Fall 2021, University of Alberta, Canada, “Hybrid Neuro-Fuzzy Model for Construction Organizational Competencies and Performance.”
9. Srisurin, Punyaanek, Graduated Summer 2020, “Microscopic Simulation Model for Mixed Traffic of Connected Automated Vehicles and Conventional Vehicles on Freeways.”
10. Alkarni, Shalan, Member Doctoral Comprehensive Exam Committee, Graduated Spring 2016, “Three Dimensional Jacobian Derivations and Divisor Class Groups.”
11. Tixier, Antoine, Member Doctoral Committee (University of Colorado at Boulder), Graduated August 2015, “Leveraging Unstructured Construction Injury Reports to Predict Safety Outcomes and Model Safety risk Using Natural Language Processing, Machine Learning, and Probability Theory.”

D. M.S. Students –Committee Chair

1. Kandaswamy, Uvaniga, Fall 2022 – present
2. Bajwa, Amandeep, Graduated Fall 2018. Master Thesis: “Emerging Technologies & their Adoption across US DOTs: A Pursuit to Optimize Performance in Highway Infrastructure Project Delivery.”
3. Mathew, Sharon, Graduated Spring 2018. Master Thesis: “Empirical Investigation of Cost Growth in Design-Build Projects Using Structural Equation Modeling.”
4. Pari, Saravanan, Graduated Fall 2017. Master Report: “Perspective of sustainable pavement practices and materials in highway construction.”
5. Upare, Anushree, Graduated Spring 2017. Master Thesis: “Strategic Program Delivery Methods: Benefits and Challenges.”
6. Farooq, Muhammad, Graduated Spring 2017. Master Thesis: “An Approach to Bridge Inspection Using 3D Laser Scanners and Digital Photographs.”
7. Gustafson, Derek, Graduated Spring 2017. Master Report “Developing and Implementing Corporate Standards: The Wrong and Right Way.”

8. Diraviam, Guru, Primary Research Advisor (University of Stuttgart). Graduated Fall 2016. Master Thesis: “Exploring Project Performance between different Project Delivery Methods using Generalized Linear Model.”
9. Derua, Sware, Graduated Spring 2016. Master Report: “Building Energy Efficiency.”
10. Lampe, John Cameron, Graduated Spring 2015. Master Thesis: “An Empirical Comparison of Project Delivery Method Performance in Highway Construction Projects.”
11. Kolli, Bharath, Graduated Spring 2015. Master Thesis: “Best Value Approach to Highway Projects: Transparency and Innovation.”
12. Brihac, Alex, Primary Research Advisor (University of Cambridge), Graduated Spring 2015. Master Thesis: “Project Cost Implications of a Hybrid Project Delivery Model: Competitive GMP.”
13. McClain, Allison, Graduated Spring 2015. Master Report: “Healthcare Construction – What Set This Specialty Niche Apart from the General Construction Market.”
14. Brenner, Taylor, Graduated Fall 2014. Master Report: “Cost Benefits of LEED Certified Buildings.”
15. Faught, Allen, Graduated Fall 2014. Master Report: “Communication Issues in the Design-Build Project Delivery Method.”

E. M.S. Students –Committee Member

1. Alkhamis, Hawraa, Fall 2022 – Present
2. Schneider, Mark, Graduated, Fall 2021. Master Report: “Construction Contract Performance Measurements for the United States Army Corps of Engineers”
3. Gunda, Nikhila, Graduated, Spring 2020. Master Thesis: “Spatial Analysis for Crashes Involving 25 to 44-Year-Old Drivers in Kansas”
4. Cheah, EeLing, Graduated, Summer 2020. Master Thesis: “Top-Performing Project Managers in Electrical Contractors: An Assessment of Human Dimensions and Project Performance”
5. Daniel, Liba, Graduated, Summer 2019. Master Thesis: “Linking community capital measurements to building damage estimation for community resilience”
6. Maali, Omar, Graduated, Summer 2019. Master Thesis: “Adopting New Technologies in the Design and Construction Industry: Best Practices for Organizational Change Management”
7. Kakarapalli, Venkata, Graduated, Spring 2018. Master Thesis: “Linking Best-Value Procurement with Project Performance Outcomes in Design-Bid-Build Vertical Construction Projects”
8. Alshatti, Fawaz, Graduated, Summer 2018. Master Report: “The use of BIM in the construction industry”

9. Mcfarlane, Matthew. Graduated, Summer 2018. Master Report: “The Comparison of Insulation and Phase Change Material in a Transient University Conference Room”
10. Badeaux, Lauren Louise, Graduated, Spring 2018. Master Thesis: “Measuring Sustainability and Resilience Qualities across Post-Disaster Temporary Housing”
11. Shalwani, Amirali, Graduated, Summer 2017. Master Thesis: “A Quantitative Analysis of Architectural and Engineering Procurement: Effects of Cost Inclusion on Procurement Outcomes Compared to Qualifications- Based Selection.”
12. Vardireddy, Prashanth, Graduated, Spring 2017. Master Thesis: “Organizational Change Adoption within the AEC Industry: Change Management Practices and Employee Reactions to Change.”
13. Kane, Maggee, Graduated, Fall 2016. Master Report: “A Case Study on Developing a Construction Project on Native Land in Canada.”
14. Ravi Kumar, Gagan, Graduated Fall 2016. Master Report: “Content Analysis of Construction Contractor Best Value Proposals.”
15. Vachhani, Anandkumar, Graduated Summer 2016. Master Thesis: “Timing of Risk Management Actions during the Construction Process: Relationship with Controlling Project Cost and Schedule Impacts.”
16. Alsinan, Rinad, Graduated, Fall 2016. Master Report: “The University of Kansas Department of Design and Construction Management Projects Study.”
17. Miao, Feng, Graduated, Summer 2015. Master Report: “Content Analysis of Contractor Technical Proposals and Corresponding Owner Evaluation.”
18. Kommalapati, Sai, Graduated, Spring 2015. Master Report: “Quantifying the Causes of Construction Project Delays in India through the Relative Importance Index Method.”
19. Boakye, Kwaku, Graduated, Summer 2014. Master Thesis: “Evaluation of Blue Confirmation Lights on Red Light Running at Signalized Intersections in Lawrence, Kansas: A Case Study.”
20. Naganathan, Hariharan, Graduated, Fall 2013. Master Thesis: “Evaluation of State Sustainable Transportation Indicator (SSTI) Using Comprehensive Analysis Structure.”

XII. COURSE INSTRUCTION

1. University of Kansas

CMGT 500 Construction Engineering, Undergraduate Core Requirement

- Spring 2023, 73 students
- Spring 2022, 86 students
- Spring 2021, 70 students
- Spring 2020, 68 students

- Spring 2019, 52 students
- Spring 2018, 51 students
- Spring 2017, 60 students
- Spring 2016, 53 students
- Fall 2015, 31 students
- Spring 2015, 43 students
- Fall 2014, 49 students
- Spring 2014, 31 students

CMGT 700 Construction Project Management, Graduate Core Requirement

- Spring 2023, 14 students
- Spring 2022, 7 students
- Spring 2021, 5 students
- Spring 2020, 3 students
- Spring 2019, 6 students
- Spring 2018, 6 students
- Spring 2017, 11 students
- Spring 2016, 9 students
- Fall 2015, 11 students
- Spring 2015, 8 students
- Fall 2014, 3 students
- Spring 2014, 7 students

CMGT 702 Construction Equipment and Methods, Graduate Core Requirement

- Fall 2022, 16 students
- Fall 2021, 15 students
- Fall 2020, 4 students
- Fall 2019, 8 students
- Fall 2018, 12 students
- Fall 2017, 15 students
- Fall 2016, 10 students
- Fall 2015, 20 students

CMGT 707 Engineering Risk and Decision Making, Graduate Technical Elective

- Fall 2022, 7 students
- Fall 2021, 6 students
- Fall 2020, 8 students
- Fall 2019, 7 students
- Fall 2018, 10 students
- Fall 2017, 9 students
- Fall 2016, 12 students

CE 625 Applied Probability & Statistics, Graduate Technical Elective

- Summer 2019, 31 students

- Summer 2018, 7 students
- Summer 2017, 4 students

CMGT 805 Construction Administration and Finance, Graduate Core Requirement

- Summer 2016, 10 students

CMGT 703 Construction Quality, Productivity, and Safety, Graduate Core Requirement

- Fall 2013, 7 students

XIII. COURSE DEVELOPMENT

1. New Courses

CMGT 707 Engineering Risk and Decision Making, Graduate Technical Elective, 3 credit hours. Created new technical elective course for Construction Engineering and Management MS and PhD students focusing on the fundamental principles and various risk and decision analysis tools and techniques for the AEC industry, including Monte Carlo simulation, decision trees, influence diagrams, and other types of multi-criteria decision analyses.

CE 625 Applied Probability & Statistics, Graduate Technical Elective, 3 credit hours. Entirely revised the course for Civil Engineering and Construction Engineering and Management MS and PhD students. Created new syllabus, developed new lectures, created new individual assignments and group projects.

CMGT 805 Construction Administration and Finance, Graduate Technical Elective, 3 credit hours. Entirely revised the course for Construction Engineering and Management MS and PhD students. Created new syllabus, developed new lectures, created new individual assignments and group projects

2. Major Revision of Existing Courses

CMGT 500 Construction Engineering, Undergraduate Core Requirement, 3 credit hours. Entirely revised core requirement course for Architectural Engineering students. Created new syllabus, developed new lectures, created new individual assignments, developed new group projects to promote industry interaction

CMGT 702 Construction Equipment and Methods, Graduate Core Requirement, 3 credit hours. Entirely revised core requirement course for Construction Engineering and Management MS and PhD students. Created new syllabus, developed new lectures, created new individual assignments and group projects.

CMGT 703 Construction Quality, Productivity, and Safety, Graduate Core Requirement, 3 credit hours. Entirely revised core requirement course for Construction Engineering and Management MS and PhD students. Created new syllabus, developed new lectures, created new individual assignments and group projects.

XIV. TEACHING AND EDUCATION WORKSHOPS

- KU Teaching Summit 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022
- ASCE ExCEED Teaching Workshop, 2014
- KU Center for Teaching Excellence workshop
- “Best Should Teach: Science and the World's Future” workshop, College of Teaching and Professional Development, University of Colorado
- “Participant-Centered Learning/Active Learning” workshop, College of Teaching and Professional Development, University of Colorado
- Participated 19 workshops for Teaching Excellence, University of Colorado

XV. SERVICE ACTIVITIES

1. National Services/Leaderships/Professional Contributions

- ***NCHRP 20-101 Project Panel: Guidelines to Incorporate the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change***, National Cooperative Highway Research Program, Transportation Research Board, National Research Council of the National Academies, invited member, 2015 – 2018.
- ***NCHRP 03-128 Project Panel: Business Intelligence Techniques for Transportation Agency Decision Making***, National Cooperative Highway Research Program, Transportation Research Board, National Research Council of the National Academies, invited member, 2017 – 2020.
- ***NCHRP 04-41 Project Panel: Deterioration Rates and Unit Costs for Geotechnical Assets***, National Cooperative Highway Research Program, Transportation Research Board, National Research Council of the National Academies, invited member, 2018 – 2019.
- ***NCHRP 23-16 Project Panel: Implementing and Leveraging Machine Learning at State Departments of Transportation***, National Cooperative Highway Research Program, Transportation Research Board, National Research Council of the National Academies, invited member, 2020 – present.
- ***National Science Foundation (NSF Panel)***, Engineering for Civil Infrastructure Program, 2018.
- **American Society of Civil Engineers (ASCE)**, 2013 – Present
 - Committee member for ASCE Wellington Prize—Evaluation and selection three papers for the Wellington Prize nomination, 2020, 2021, 2022, 2023
 - Committee member for the *ASCE Journal of Management in Engineering* best paper award: Evaluation and selection of two best papers, 2021, 2022, 2023

- Track Chair, 2024 ASCE Construction Research Congress, Contracting, Project Delivery, and Legal Issues, managing 35 papers
- Session Chair/Moderator, Building Engineering & Construction Material, 2021 ASCE/CSCE Construction Research Congress
- Session Chair/Moderator, Sustainable Construction, 2021 ASCE/CSCE Construction Research Congress
- Session Chair/Moderator, BIM and Virtual Design and Construction, 2021 ASCE/CSCE Construction Research Congress
- Session Chair/Moderator, Risk and Safety Management, 2018 ASCE Construction Research Congress
- Session Chair/Moderator, Construction Planning and Control, 2014 ASCE Construction Research Congress
- **Transportation Research Board (TRB), 2013 – Present**
 - Organized and moderated a technical session, *P3 and Alliancing*, for 94th Annual TRB meeting
 - Organized and moderated a technical session, *Project Delivery Methods: Delivering Needed Infrastructure through Increased Collaboration*, for 95th Annual TRB meeting
 - Organized and moderated a technical session, *New Frontiers in Practice and Research*, for 96th Annual TRB meeting
 - Led or participated in writing more than 15 Research Needs Statements for TRB Standing Committee on Construction Management (AKC10) and Standing Committee on Project Delivery Methods (AKC20).
 - Assistant Committee Communications Coordinator, Standing Committee on Project Delivery Methods (AKC20), 2015-2018
- Federal Highway Administration (FHWA), Technical Group Member for FHWA Every Day Counts (EDC), 2018 – 2022

2. International Services /Leaderships/Professional Contributions

- Editorial Board
 - **Associate Editor**, American Society of Civil Engineers (ASCE) *Journal of Architectural Engineering*, 2019 – Present
 - **Assistant Special Editor**, American Society of Civil Engineers (ASCE) *Journal of Construction Engineering and Management*, 2015 – Present
 - **Editorial Board Member**, American Society of Civil Engineers (ASCE) *Journal of Management in Engineering*, 2020 – Present
 - **Handling Editor**, Transportation Research Board (TRB) *Journal of Transportation Research Record*, 2019 – Present

- **Guest Editor**, Special Issue "Sensors and Sensing Technologies for Monitoring and Inspection during Construction, *Sensors Journal*.

- Grant and Award Reviewer
 - Peer reviewer for Natural Sciences and Engineering Research Council (NSERC) of Canada, Discovery Grant Application, 2018, 2019, 2020

- Peer-reviewer service performed for the following journals:
 - ASCE *Journal of Construction Engineering and Management*
 - ASCE *Journal of Management in Engineering*
 - ASCE *Journal of Journal of Infrastructure Systems*
 - ASCE *Journal of Professional Issues in Engineering Education and Practice*
 - Transportation Research Board's *Transportation Research Record*
 - Elsevier's *Automation in Construction*
 - Elsevier's *Sustainable Cities and Society*
 - Taylor & Francis, *Engineering Economist*
 - Taylor & Francis, *Construction Management and Economics*
 - Canadian *Journal of Civil Engineering*
 - Emerald, *Built Environment Project and Asset Management*
 - Wiley's *Journal of Risk Analysis*

- Peer-reviewer service performed for the following conference proceedings:
 - ASCE Construction Research Congress (CRC), Washington D.C., March 2022. (6 papers)
 - ASCE/CSCE Construction Research Congress, Virtual Conference, May 26-29, Canada, May 2021 (9 papers)
 - ASCE Construction Research Congress (CRC), Temple, Arizona, March 2020. (8 papers)
 - ASCE/CSCE Construction Research Congress, Laval, Canada, June 2019 (7 papers)
 - ASCE Construction Research Congress (CRC), New Orleans, LA, April 2018. (15 papers)
 - ASCE Construction Research Congress (CRC), San Juan, Puerto Rico, May 2016 (3 papers)
 - ASCE Construction Research Congress (CRC), Atlanta, GA, May 2014 (4 papers)
 - Transportation Research Board (TRB), 103th Annual Meeting, Washington, D.C. January 2023 (8 papers)
 - Transportation Research Board (TRB), 102th Annual Meeting, Washington, D.C. January 2022 (8 papers)
 - Transportation Research Board (TRB), 101th Annual Meeting, Washington, D.C. January 2021 (7 papers)

- Transportation Research Board (TRB), 99th Annual Meeting, Washington, D.C. January 2020 (6 papers)
- Transportation Research Board (TRB), 98th Annual Meeting, Washington, D.C. January 2019 (5 papers)
- Transportation Research Board (TRB), 97th Annual Meeting, Washington, D.C. January 2018 (7 papers)
- Transportation Research Board (TRB), 96th Annual Meeting, Washington, D.C. January 2017 (8 papers)
- Transportation Research Board (TRB), 95th Annual Meeting, Washington, D.C. January 2016 (5 papers)
- Transportation Research Board (TRB), 94th Annual Meeting, Washington, D.C. January 2015 (6 papers)
- Transportation Research Board (TRB), 93rd Annual Meeting, Washington, D.C. January 2014 (5 paper)
- 38th Annual Australasian Universities Building Education Association (AUBEA) Conference, Auckland, New Zealand, 2013 (4 papers)

3. Campus Services /Leaderships/Professional Contributions

University of Kansas – Campus

- The Oread Project, Center for Sustainability, 2015 – 2022
- Judge, KU Professionals for Inclusion and Social Justice (ISJ) Research Conference, February 2018 (evaluated 9 posters)
- Judge, KU Postdoc Association Research Day, February 2016 (evaluated 11 posters)
- Judge, KU Annual Graduate Research Competition, March 2016 (evaluated 10 posters)

University of Kansas – School of Engineering

- SoE Academic Standards Committee, 2022 – 2024
- SoE Sabbatical Committee, 2021 – 2022
- Founding Director, the Craig & Diane Martin National Center for Construction Safety, (2019 to 2021)
 - One of the key team members to establish a \$3.5 Million Safety Center
 - Positioned a strategic plan and foundation for the Center Development
 - Initiated the Center’s research plan
 - Established on-campus space for the Center
 - Consulted professional designers for developing the Center’s website
 - Conducted a series of roundtable meetings with industry representatives nationwide to vet the Center’s vision, impact, and strategic approaches
 - Recruited Research Professor/current Director for the Center
- Judge, KU Graduate Engineering Association (GEA) Research Competition, April 2018 (evaluated 5 posters)

- Judge, KU Graduate Engineering Association (GEA) Research Competition, April 2017 (evaluated 8 posters)
- Judge, KU Graduate Engineering Association (GEA) Research Competition, April 2016 (evaluated 7 posters)

University of Kansas –Department of Civil, Environmental, and Architectural Engineering

- CEAE Retention Committee, 2013 – 2016; 2018 – Present
- ABET Committee, 2019 – Present
- Chair, Construction Faculty Search Committee, 2019-2020
- Faculty Search Committee – Research Professor, member, 2020
- CEAE Sabbatical Committee, 2019 – 2020
- CEAE Qingdao Committee, 2016 – Present
- CEAE Faculty Search Committee – Construction, member, 2013 – 2014
- CEAE Faculty Search Committee – Professor of Practice, member, 2014 – 2015
- Faculty Advisor to the KU Associated General Contractors of America, 2013 – Present
- Organizing Construction Engineering and Management seminar, 2015 – Present
- CEAE professional development seminar, 2014
- Plan and Schedule CMGT courses, 2014 – Present
- Revise Construction Engineering and Management Program curriculum, 2014 – Present
- Evaluate construction graduate applications, 2014 – Present
- Meet with visitor students from KU Visitors Center, 2013 – Present
- High School Project Discovery Campers, 2017, 2018, 2019
- Conducted FE Reviews of Engineering Economics, 2017, 2018, 2020
- Conducted FE Reviews of Construction Engineering, 2019, 2020, 2021