

curriculum vitae

Steven D. Schrock, Ph.D., P.E., ACTAR, F. ITE

Professor, Department of Civil, Environmental, and Architectural Engineering
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EDUCATION

- Ph.D. 2007 Civil Engineering, Texas A&M University, College Station, Texas; Concentration: Transportation Engineering
- M.S. 1999 Civil Engineering, Iowa State University, Ames, Iowa; Concentration: Transportation Engineering
- B.S. 1994 Civil Engineering, Iowa State University, Ames, Iowa

Doctoral Dissertation

Development of a Personal Computer-Based Secondary Task Procedure as a Surrogate for a Driving Simulator, Texas A&M University, College Station, Texas. August 2007. Committee Chair: C.L. Dudek. Committee Members: R. Koppa, J. Matis, D. Woods

Master's Thesis

Evaluation of Alternative Rural Interstate Work Zone Traffic Management Plans Using Simulation: A Case Study, Iowa State University, Ames, Iowa. August 1999. Major Professor: T.H. Maze. Committee Members: R. Souleyrette, T. Barta

EMPLOYMENT

- 2018 - present Professor, Civil, Environmental, and Architectural Engineering. University of Kansas, Lawrence, Kansas
- 2017 - present Director, University of Kansas Transportation Center. University of Kansas, Lawrence, Kansas
- 2013 - 2017 Director, Transportation Engineering Analysis Laboratory. University of Kansas, Lawrence, Kansas
- 2012 - 2018 Associate Professor, Civil, Environmental, and Architectural Engineering. University of Kansas, Lawrence, Kansas
- 2011 - 2015, 2016 - present Associate Director, Mid-America Transportation Center. University of Kansas, Lawrence, Kansas
- 2007 - 2012 Assistant Professor, Civil, Environmental, and Architectural Engineering. University of Kansas, Lawrence, Kansas
- 2006 - 2007 Acting Assistant Professor, Civil, Environmental, and Architectural Engineering. University of Kansas, Lawrence, Kansas
- 2004 - 2006 Assistant Research Engineer, Texas Transportation Institute. College Station, Texas
- 2002 - 2004 Assistant Transportation Researcher, Texas Transportation Institute. College Station, Texas

Last Update: February 6, 2019

1999 - 2002	Graduate Assistant Researcher, Texas Transportation Institute. College Station, Texas
1997 - 1999	Graduate Research Assistant, Center for Transportation Research and Education, Iowa State University. Ames, Iowa
1996 - 1997	Staff Consultant, Benchmark, Inc. Cedar Rapids, Iowa
1995	Field Consultant, Benchmark, Inc. Cedar Rapids, Iowa

PROFESSIONAL REGISTRATION

3. Accreditation Commission for Traffic Accident Reconstruction (ACTAR) Accredited Traffic Accident Reconstructionist, ACTAR License 3191, 2017 - December 3, 2021.
2. Registered Professional Engineer, Kansas License 18989, 2006 - April 30, 2019.
1. Registered Professional Engineer, Texas License 92982, 2004 - 2007 (Inactive).

PUBLICATIONS

Books

1. Hurt, M. and S.D. Schrock. *Highway Bridge Maintenance Planning and Scheduling*. Butterworth-Heinemann, an imprint of Elsevier, Waltham, Massachusetts, 2016.

Peer-Reviewed Journal Papers

25. Kummetha, V.C.⁽¹⁾, A. Kondyli, and S.D. Schrock. Analysis of the Effects of Adaptive Cruise Control on Driver Behavior and Awareness Using a Driving Simulator. *Journal of Transportation Safety & Security*. Accepted August 28, 2018, In press. Published online December 5, 2018, <https://doi.org/10.1080/19439962.2018.1518359>.
24. Lindheimer, T.E.⁽¹⁾, E.J. Fitzsimmons⁽²⁾, and S.D. Schrock. Evaluation of Confirmation Lights on Red Light Running Violations by Time-into-Red Phase. *Transportation Research Record: Journal of the Transportation Research Board No. 2584*, National Research Council of the National Academies, Washington D.C., 2016, pp. 24-29.
23. Schrock, S.D., M.T. Udaipurwala⁽²⁾, and E.J. Fitzsimmons⁽²⁾. Evaluation of Intersection Confirmation Lights with Targeted Enforcement to Reduce Red Light Running Violations at Freeway Ramp Intersections. *Transportation Research Record: Journal of the Transportation Research Board No. 2584*, National Research Council of the National Academies, Washington D.C., 2016, pp. 1-7.
22. Schrock, S.D., S.S. Patil⁽²⁾, and E.J. Fitzsimmons⁽²⁾. Portable Traffic Signals in Conjunction with Pilot Car Operations at Two-Lane, Two-Way Rural Highway Work Zones. *Transportation Research Record: Journal of the Transportation Research Board No. 2555*, National Research Council of the National Academies, Washington D.C., 2016, pp. 72-80.
21. Schrock, S.D., S.S. Patil⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Model Development for Use of Portable Traffic Signals in Conjunction with Pilot Car Operations at Two-Lane, Two-Way Rural Highway Work Zones. *Transportation Research Record: Journal of the Transportation Research Board No. 2555*, National Research Council of the National Academies, Washington D.C., 2016, pp. 19-27.
20. Guo, J.⁽¹⁾, J. Han, S.D. Schrock, and R.L. Parsons. Field Evaluation of Vegetation Growth in Geocell-Reinforced Unpaved Shoulders. *Journal of Geotextiles and Geomembranes*. Geotextiles and Geomembranes, Vol. 43, No. 5, October 2015, pp. 403-411.

19. Boakye, K.⁽¹⁾, E.J. Fitzsimmons⁽²⁾, S.D. Schrock, and T.E. Lindheimer⁽¹⁾. Value of Confirmation Lights and Their Unintended Impact on Driver Compliance and Deterrence to Running a Red Light. *Transportation Research Record: Journal of the Transportation Research Board No. 2516*, National Research Council of the National Academies, Washington D.C., 2015, pp. 68-74.
18. Guo, J.⁽¹⁾, J. Han, S.D. Schrock, and R.L. Parsons. Vegetation Tests of Geocell-Reinforced Unpaved Shoulders. American Society of Civil Engineers, *Ground Improvement and Geosynthetics*, 2014, pp. 343-352.
17. Fitzsimmons, E.J.⁽²⁾, T.E. Mulinazzi, and S.D. Schrock. Economic Impact of Closing Structurally Deficient or Functionally Obsolete Bridges on Very Low-Volume Roads. *Transportation Research Record: Journal of the Transportation Research Board No. 2433*, National Research Council of the National Academies, Washington D.C., 2014, pp. 116-120.
16. Hurwitz, D.S., K.P. Heaslip, S.D. Schrock, J. Swake⁽¹⁾, P. Marnell⁽¹⁾, H. Tuss⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Implications of Distracted Driving on Start-Up Lost Time for Dual Left Turn Lanes. *ASCE Journal of Transportation Engineering*, Vol. 139, No. 9, September 2013, pp. 923-930.
15. Wang, M.-H.⁽²⁾, S.D. Schrock, N. Vander Broek⁽¹⁾, and T.E. Mulinazzi. Estimating Dynamic Origin-Destination Data and Travel Demand Using Cell Phone Network Data. *International Journal of ITS Research*, Vol. 11, No. 2, May 2013, pp. 76-86.
14. Wang, M.-H.⁽²⁾, S.D. Schrock, C. Bornheimer⁽¹⁾, and R. Rescot⁽¹⁾. The Effects of Temporary Portable Rumble Strips at Flagger-Controlled Highway Work Zones. *ASCE Journal of Transportation Engineering*, Vol. 139, No. 2, February 2013, pp. 156-164.
13. Zeng, H.⁽¹⁾, and S.D. Schrock. Estimation of Safety Effectiveness of Composite Shoulders on Rural Two-Lane Roads. *Transportation Research Record: Journal of the Transportation Research Board No. 2279*, National Research Council of the National Academies, Washington D.C., 2012, pp. 99-107.
12. Schrock, S.D., R.L. Parsons, and H. Zeng⁽¹⁾. Estimation of Safety Effectiveness of Widening Shoulders and Adding Passing Lanes on Rural Two-Lane Roads. *Transportation Research Record: Journal of the Transportation Research Board No. 2203*, National Research Council of the National Academies, Washington D.C., 2011, pp. 57-63.
11. Heaslip, K.P., S.D. Schrock, M.-H. Wang⁽²⁾, R. Rescot⁽¹⁾, Y. Bai, and B. Brady⁽¹⁾. A Closed Course Feasibility Analysis of Temporary Rumble Strips for Use in Short Term Work Zones. *Journal of Transportation Safety & Security, Vol. 2, No. 4*, Taylor & Francis Group, Dec. 2010, pp. 299-311.
10. Schrock, S.D., K.P. Heaslip, M.-H. Wang⁽²⁾, and R. Jasrotia⁽¹⁾. Closed Course Test and Analysis of Vibration and Sound Generated by Temporary Rumble Strips for Short-Term Work Zones. *Transportation Research Record: Journal of the Transportation Research Board No. 2169*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2010, pp. 21-30.
9. Schrock, S.D., C.B. Young, and D. Chellamani⁽¹⁾. Use of Monte Carlo Simulation to Evaluate the Kansas Department of Transportation's Maintenance Quality Assurance Program. *Transportation Research Circular No. E-C135*, Transportation Research Board, National Research Council of the National Academies, July 2009, pp. 3-17, <http://onlinepubs.trb.org/onlinepubs/circulars/ec135.pdf>.
8. Zhang, Y., R. Agrawal⁽¹⁾, S.D. Schrock, and J. Tong⁽¹⁾. Finite Element Modeling of Stresses Inside a Raised Pavement Marker During Tire-Marker Impacts Under Various External Factors. *Transportation Research Record: Journal of the Transportation Research Board No. 2015*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2007, pp. 103-109.
7. Dudek, C.L., S.D. Schrock, and B.D. Ullman. License Plate and Telephone Numbers in Changeable Message Sign AMBER Alert Messages. *Transportation Research Record: Journal of the Transportation Research Board No. 2012*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2007, pp. 64-71.
6. Dudek, C.L., S.D. Schrock, G.L. Ullman, and S.T. Chrysler. Flashing Message Features on Changeable Message Signs. *Transportation Research Record: Journal of the Transportation Research Board No. 1959*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2006, pp. 122-129.

5. Schrock, S.D., H.G. Hawkins, Jr., and S.T. Chrysler. Effectiveness of Pavement Marking Lane Direction Arrows for Reducing Wrong-Way Movements on Two-Way Frontage Roads. *Transportation Research Record: Journal of the Transportation Research Board No. 1918*, National Research Council of the National Academies, Washington D.C., 2005, pp. 63-67.
 4. Gates, T.J., S.D. Schrock, and J.A. Bonneson. Comparison of Portable Speed Measurement Devices. *Transportation Research Record: Journal of the Transportation Research Board No. 1870*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2004, pp. 139-146.
 3. Schrock, S.D. and G.L. Ullman. Spacing of Law Enforcement Pullout Areas in Highway Work Zones. *Transportation Research Record: Journal of the Transportation Research Board No. 1824*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2003, pp. 37-43.
 2. Schrock, S.D. G.L. Ullman, and N.D. Trout. Survey of State Law Enforcement Personnel on Work Zone Enforcement Practices. *Transportation Research Record: Journal of the Transportation Research Board No. 1818*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2002, pp. 7-11.
 1. Fontaine, M.D., S.D. Schrock, and G.L. Ullman. Feasibility of Real-Time Remote Speed Enforcement for Work Zones. *Transportation Research Record: Journal of the Transportation Research Board No. 1818*, Transportation Research Board, National Research Council of the National Academies, Washington D.C., 2002, pp. 25-31.
- (1) Student author.
(2) Post-Doctoral Researcher or Research Associate author.

Peer-Reviewed Proceedings (by full paper)

26. Schrock, S.D. V.R. Sarikonda⁽²⁾, and E.J. Fitzsimmons⁽²⁾. Development of a Decision Matrix and Specifications for Portable Temporary Rumble Strips. 95th Annual Meeting of the Transportation Research Board Compendium, January 2016.
25. Mohammed, H.J.⁽¹⁾, S.D. Schrock, and E.J. Fitzsimmons⁽²⁾. Accuracy of Traffic Speed and Volume Data Detected Using Radar Technology. 95th Annual Meeting of the Transportation Research Board Compendium, January 2016.
24. Cai, H., S.D. Schrock, and E.J. Fitzsimmons⁽²⁾. Self De-Icing LED Signals: The Concept and Laboratory Evaluations. 95th Annual Meeting of the Transportation Research Board Compendium, January 2016.
23. Cheng, H.⁽¹⁾, X. Yang, S.D. Schrock, and E.J. Fitzsimmons⁽²⁾. Implications of Congestion Charging for Morning Commute Choice in Beijing, China Discrete Choice Model of Combined Departure Time and Route. 94th Annual Meeting of the Transportation Research Board Compendium, January 2015.
22. Rescot, R.A.⁽¹⁾. and S.D. Schrock. Estimating Turning Movements at Roundabouts Using Bluetooth Technology. 92nd Annual Meeting of the Transportation Research Board. 92nd Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2013.
21. Zeng, H.⁽¹⁾ and S.D. Schrock. Safety Effectiveness of Various Types of Shoulders on rural Two-Lane Roads in Winter Period and Non-Winter Period. 92nd Annual Meeting of the Transportation Research Board. 92nd Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2013.
20. Fitzsimmons, E.J.⁽²⁾, T. Lindheimer⁽¹⁾, S.D. Schrock, and K. Gonterwitz. Evaluation of Large Truck Crashes at Horizontal Curves on Two-Lane Rural Highways in Kansas. 92nd Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2013.
19. Wang, M.-H.⁽²⁾, S.D. Schrock, N. Vander Broek⁽¹⁾, and T.E. Mulinazzi. The Feasibility Analysis of Using Cellular Phone Location Data in Traffic Surveys on Inter-City Trips. 92nd Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2013.

18. Bornheimer, C.⁽¹⁾, S.D. Schrock, M.-H. Wang⁽²⁾, and H. Lubliner. Developing a Regional Safety Performance Function for Rural Two-Lane Roads. 91st Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2012.
17. Wang, M.-H.⁽²⁾, S.D. Schrock, and T.E. Mulinazzi. The Use of Cell Phone Network Data in Traffic Data Collection and Long-Haul Truckshed (Geographic Extent) Tracking. 91st Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2012.
16. Sun, C., R.A. Rescot⁽¹⁾, and S.D. Schrock. Use of Non-Aggregated Video Data for Bluetooth Validation. 91st Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2012.
15. Lubliner, H.⁽¹⁾ and S.D. Schrock. Calibration of the Highway Safety Manual Prediction Model for Kansas Highways. 91st Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2012.
14. Wang, M.-H.⁽²⁾, S.D. Schrock, and T.E. Mulinazzi. Deriving Cross-Region Commuting Traffic and Potential Transit Demand Using Cellular Phone Position Data. 18th ITS World Congress, Orlando, Florida, October 2011.
13. Wang, M.-H.⁽²⁾, S.D. Schrock, and T.E. Mulinazzi. Freight Data Collection Technique and Algorithm Using Cellular Phone Data. 90th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2011.
12. Wang, M.-H.⁽²⁾, S.D. Schrock, R. Rescot⁽¹⁾, and C. Bornheimer⁽¹⁾. Evaluation of Portable Plastic Rumble Strips at Short-Term Maintenance Work Zones. 90th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2011.
11. Wang, M.-H.⁽²⁾, S.D. Schrock, and T.H. Mulinazzi. The Potential of Cellular Phone Positioning Technology in Travel Behavior and Traffic Impact Studies. 17th ITS World Congress, Busan, Korea, October, 2010.
10. Liu, C.⁽¹⁾, Y. Bai, and S.D. Schrock. Development of Empirical Models to Estimate Pavement Damage Cost Attributed to Truck Traffic. 8th Asia Pacific Transportation Development Conference and the 23rd ICTPA Annual Meeting, Tainan, Taiwan, May, 2010.
9. Schrock, S.D., C.B. Young, D. Chellamani⁽¹⁾, and R. Fuller. Evaluation of a Maintenance Quality Assurance Program Using Monte Carlo Simulation. 89th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2010.
8. Schrock, S.D., M.T. Becker⁽¹⁾, and T.E. Mulinazzi. Examination of the Effectiveness of Early Merge Work Zone Signing. 88th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2009.
7. See, C.F.⁽¹⁾, S.D. Schrock, and K. McClure. Crash Analysis of Work Zone Lane Closures with Left-Hand Merge and Downstream Lane Shift. 88th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2009.
6. Rescot, R.⁽¹⁾, C. Sun and S. Schrock. Development of an Automated Solution for Deriving Roundabout Turning Movement Equivalents. National Roundabout Conference of the Transportation Research Board Compendium, Kansas City, Missouri, May 2008.
5. Schrock, S.D. and C.L. Dudek. Testing of a Personal Computer-based Secondary Task Procedure as a Surrogate for a Driving Simulator. 87th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2008.
4. Schrock, S.D. and B. Bundy⁽¹⁾. Pedestrian Countdown Timers: Do Drivers Use Them To Increase Safety Or Increase Risk Taking? 87th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2008.
3. Schrock, S.D. and C.F. See⁽¹⁾. Public Opinion and Understanding of Advance Warning Arrow Displays Used in Short-term, Mobile, and Moving Work Zones. 87th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2008.

2. Kamyab, A., T.H. Maze, S. Gent, and S.D. Schrock. Work Zone Speed Control and Management by State Transportation Agencies and Toll Authorities. 80th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2001.
1. Schrock, S.D. and T.H. Maze. Evaluation of Interstate Work Zone Traffic Management Plans Using Simulation. 79th Annual Meeting of the Transportation Research Board Compendium, Washington D.C., January 2000.

(1) Student author.

(2) Post-Doctoral Researcher or Research Associate author.

Peer-Reviewed Proceedings (by abstract)

18. Sun, X. (1), J. Han, S.D. Schrock, R.L. Parsons, and J. Guo(1). Performance of Multi-Axial Geogrid-Stabilized Unpaved Shoulders under Cyclic Loading. Proceedings of GeoShanghai 2018 International Conference: Ground Improvement and Geosynthetics, Springer Nature Singapore Pte. Ltd., pp. 473–482, 2018, https://doi.org/10.1007/978-981-13-0122-3_52.
17. Guo, J. (1), J. Han, S.D. Schrock, R.L. Parsons, and X. Sun(1). Experimental Study on Geocell-Stabilized Unpaved Shoulders. Proceedings of GeoShanghai 2018 International Conference: Ground Improvement and Geosynthetics, Springer Nature Singapore Pte. Ltd., pp. 390–398, 2018, https://doi.org/10.1007/978-981-13-0122-3_43.
16. Tannoury, G.A.(1) and S.D. Schrock. Chemical Stabilization of Unstable Trackbeds. Paper Number JRC2016-5779. 2016 Joint Rail Conference, Columbia, South Carolina, April 12 - 15, 2016.
15. Shehada, M.(1), A. Ahuja(1), and S.D. Schrock. Advancing Pedestrian Safety and Case Study of Pedestrian Psychology at Railroad Grade Crossing. Paper Number JRC2016-5780. 2016 Joint Rail Conference, Columbia, South Carolina, April 12 - 15, 2016.
14. Kadiyala, S.(1), P. Gubbala(1), and S.D. Schrock. Human Behavior at Railroad Grade Crossings. Paper Number JRC2016-5786. 2016 Joint Rail Conference, Columbia, South Carolina, April 12 - 15, 2016.
13. Mulinazzi, T.E. and S.D. Schrock. Are Students ENTITLED to High Grades. 2010 ASEE Midwest Section Conference, Lawrence, Kansas, September 2010.
12. Hurt, M.(1), R. Rescot, and S.D. Schrock. Review of Crashes at Bridges in Kansas. Mid-Continent Transportation Research Symposium 2009 Compendium (CD-ROM), Ames, Iowa, August, 2009.
11. Hurt, M.(1), Y. Huang(1), and S.D. Schrock. Analysis of Traffic Sign Retroreflectivity in National Wildlife Refuges in the Midwest. Mid-Continent Transportation Research Symposium 2009 Compendium, Ames, Iowa, August, 2009.
10. Rescot, R.(1), R. Jasrotia(1), K. Hovey(1), Y. Li(1), and S.D. Schrock. Predicting and Mitigating Wind Induced Truck Crashes on I-70 in Kansas. Mid-Continent Transportation Research Symposium Compendium 2009, Ames, Iowa, August, 2009.
9. Wang, M.-H.(2), S.D. Schrock, and T.E. Mulinazzi. Feasibility of Using Cellular Telephone Data to Determine the Truckshed of Intermodal Facilities. Mid-Continent Transportation Research Symposium 2009 Compendium, Ames, Iowa, August, 2009.
8. See, C.F.(1), S.D. Schrock, W.K. Chong, Y. Bai, and J. Saadi(1). Evaluation of Technology-Enhanced Flagger Devices: Focus Group and Survey Studies in Kansas. Mid-Continent Transportation Research Symposium 2009 Compendium, Ames, Iowa, August, 2009.
7. Young, S.E., P. Muller, M. El-Aasar, D. Landman and S.D. Schrock. PRT Case Study at the Village West Development in Kansas City, Kansas. ASCE Automated People Movers Conference, Atlanta, Georgia, May - June, 2009.
6. Hurt, M.(1), R. Rescot(1), S. Robb(1), and S.D. Schrock. Evaluation of Interchange Options using Microsimulation with VISSIM. 8th Mid-Continent Transportation Research Forum Compendium, Madison, Wisconsin, August 2008.

5. Bundy, B.⁽¹⁾ and S.D. Schrock. Modification of Driver Behavior Based on Information from Pedestrian Countdown Timers. Mid-Continent Transportation Research Symposium Compendium, Ames, Iowa, August 2007.
4. See, C.F.⁽¹⁾ and S.D. Schrock. Focus Group Participants' Understanding of Advance Warning Arrow Displays Used in Short-Term and Moving Work Zones. Mid-Continent Transportation Research Symposium Compendium, Ames, Iowa, August 2007.
3. Schrock, S.D. and T.H. Maze. Evaluation of Rural Interstate Work Zone Traffic Management Plans in Iowa Using Simulation. Mid-Continent Transportation Symposium Compendium of Papers, May 15-16, 2000, Ames, Iowa, 2000, 184-188.
2. Maze, T.H., S.D. Schrock, and A. Kamyab. Capacity of Freeway Work Zone Lane Closures. Mid-Continent Transportation Symposium Compendium of Papers, May 15-16, 2000, Ames, Iowa, 2000, pp. 178-183.
1. Kamyab, A., T.H. Maze, M. Nelson, and S.D. Schrock. Using Simulation to Evaluate the Performance of Smart Work Zone Technologies and Other Strategies to Reduce Congestion. 6th ITS World Congress Compendium of Papers, Toronto, Canada, November 9, 1999.

⁽¹⁾ Student author.

⁽²⁾ Post-Doctoral Researcher or Research Associate author.

White Paper

5. Honea, R. and S.D. Schrock. Transportation Thrust Area White Paper. Prepared for the School of Engineering, University of Kansas, September 2010.
4. Becker, M.⁽¹⁾ and S.D. Schrock. Kansas Department of Transportation Shoofly Detour Construction Cost Analysis. Report No. SDS-001. University of Kansas, Lawrence, Kansas, July 2009.
3. Schrock, S.D. Small Changes, Big Results: Incorporating Public Speaking into an Engineering Course. *Reflections from the Classroom*, University of Kansas, Center for Teaching Excellence, Volume 11, 2009, pp. 13-17.
2. Ullman, G.L., M.D. Fontaine, and S.D. Schrock. Creating Enforcement-Friendly Work Zones. Prepared for the Federal Highway Administration's Making Work Zones Work Better Workshops, <http://ops.fhwa.dot.gov/wz/workshops/originals/ullman.doc>, 2002.
1. Schrock, S.D. Arterial Dynamic Message Signs: A Synthesis of Existing Practice and Guidelines for Future Use. Compendium: Papers on Advanced Surface Transportation Systems, 2000. Report No. SWUTC/00/473700-00003-1. Dudek, C.L. (Editor). Texas Transportation Institute, Texas A&M University, College Station, Texas, August 2000.

⁽¹⁾ Student author.

Reports

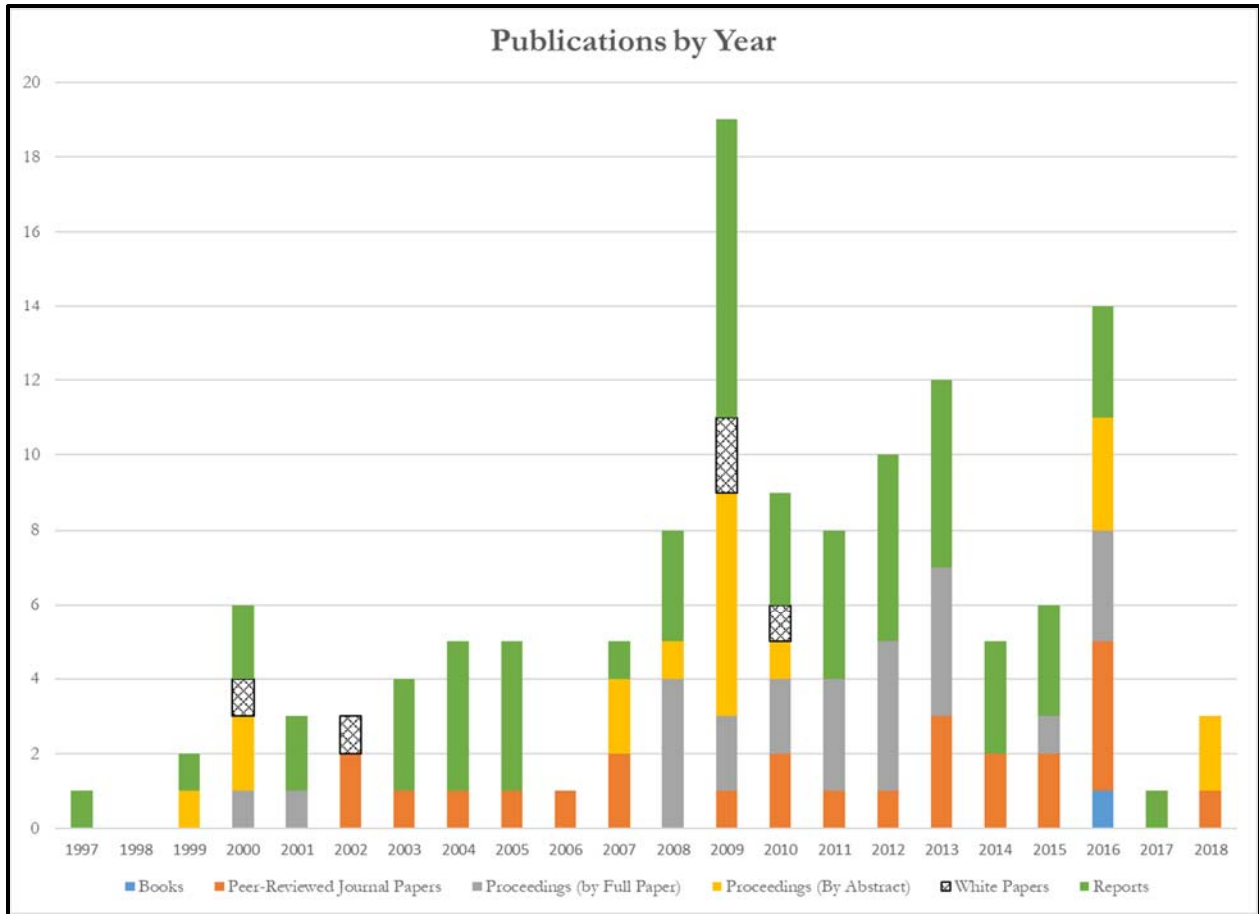
54. Kondyli, A. and S.D. Schrock. Improving the Accuracy and Applicability of Kansas' Traffic Data. Report No. KU-17-2. University of Kansas, Lawrence, Kansas, December 2017.
53. Schrock, S.D., L. Monarres⁽¹⁾, X. Zhang⁽¹⁾, and M.L. Baer⁽¹⁾. Analysis of the Costs Associated with the Use of On-Site Detours during the Comprehensive Transportation Program. Report No. C1849. University of Kansas, Lawrence, Kansas, December 2016 (Unpublished).
52. Schrock, S.D., S. Kadiyala⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Development of Decision Matrices to Improve Rural Road Safety by Investigating Roadside Countermeasure Potential Benefits and Costs. Report No. KU-15-4. University of Kansas, Lawrence, Kansas, October 2016.

51. Schrock, S.D., A. Bruner⁽¹⁾, V.C. Kummetha⁽¹⁾, T. Shrider⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Improving the Traffic Safety Culture in Kansas. Report No. KU-15-2. University of Kansas, Lawrence, Kansas, October 2016.
50. Schrock, S.D., S.S. Patil⁽¹⁾, E.J. Fitzsimmons⁽²⁾, and V.R. Sarikonda⁽¹⁾. Evaluation of Temporary Traffic Signals in Conjunction with Pilot Car Operations at Two-Way Long Temporary Work Zones. Report No. C-1979-1. University of Kansas, Lawrence, Kansas, August 2015.
49. Fitzsimmons, E.J.⁽²⁾, T.E. Lindheimer⁽¹⁾, and S.D. Schrock. Evaluation of Intersection Confirmation Lights in Medium to Large Communities in Iowa to Reduce Red Light Running Violations. Report No. TR-657. University of Kansas, Lawrence, Kansas, February 2015.
48. Schrock, S.D., S.S. Patil⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Evaluation of the iCone as a Portable Traffic Data Collection Device. Report No. C-1979-2. University of Kansas, Lawrence, Kansas, January 2015.
47. Schrock, S.D., S.S. Patil⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Evaluation of Temporary Traffic Signals in Conjunction with Pilot Car Operations at Two-Way Long Temporary Work Zones. Report No. C-1979-1. University of Kansas, Lawrence, Kansas, December 2014.
46. Schrock, S.D., V.R. Sarikonda⁽¹⁾, and E.J. Fitzsimmons⁽²⁾. Development of Temporary Rumble Strip Specifications. Report No. KU 14-6. University of Kansas, Lawrence, Kansas, December 2014.
45. Lindheimer, T.E.⁽¹⁾, E.J. Fitzsimmons⁽²⁾, S.D. Schrock, and K. Boakye⁽¹⁾. Evaluation of Blue Confirmation Lights at Signalized Intersections in Overland Park, Kansas to Reduce Red Light Running Violations. Report No. KU-13-5. University of Kansas, Lawrence, Kansas, December 2014.
44. Schrock, S.D., E.J. Fitzsimmons⁽²⁾, and K. Boakye⁽¹⁾. Evaluation of Blue Confirmation Lights on Red Light Running at Signalized Intersections. University of Kansas, Lawrence, Kansas, November 2014.
43. Wang, M.-H.⁽²⁾, S.D. Schrock, Y. Bai, and R.A. Rescot⁽¹⁾. Evaluation of Innovative Traffic Safety Devices at Short Term Work Zones. Report No. KU-09-5. University of Kansas, Lawrence, Kansas, February 2013 (Revised).
42. Lubliner, H.⁽¹⁾, C. Bornheimer⁽¹⁾, Schrock, S.D., M.-H. Wang⁽²⁾, and E. Fitzsimmons⁽²⁾. Evaluation of the Highway Safety Manual for Rural Two-Lane Highway Segments in Kansas. Report # KU-10-1. University of Kansas, Lawrence, Kansas, January 2013.
41. Wang, M.-H.⁽²⁾, S.D. Schrock, N. Vander Broek⁽¹⁾, and T.E. Mulinazzi. The Use of Cell Phone Network Data in Traffic Data Collection and Long-Haul Truckshed (Geographic Extent) Tracking. Report #MATC-KU: 361. University of Kansas, Lawrence, Kansas, December 2012.
40. Schrock, S.D. and E.J. Fitzsimmons⁽²⁾. Evaluation of Large-Truck Fixed-Object Crashes at Bridge Structures in Kansas. Report # MATC-KU: 466. University of Kansas, Lawrence, Kansas, December 2012.
39. Schrock, S.D., T.E. Mulinazzi, and M.-H. Wang⁽²⁾. Feasibility of Using Cellular Telephone Data to Determine the Truckshed of Rail-Truck Intermodal Facilities. Report # MATC-KU: 122. University of Kansas, Lawrence, Kansas, December 2012.
38. Fitzsimmons, E.J.⁽²⁾, S.D. Schrock, and T.E. Lindheimer⁽¹⁾. Evaluation of Large Truck Crashes at Horizontal Curves on Two-Lane Rural Highways in Kansas. Report # UNI0066766. University of Kansas, Lawrence, Kansas, December 2012.
37. Rescot, R.A., S.D. Schrock, and E.J. Fitzsimmons⁽²⁾. Feasibility of Bluetooth as a Surrogate Measure of Vehicle Operations. Report # KAN0064043. University of Kansas, Lawrence, Kansas, August 2012.
36. Neff, M.⁽¹⁾, Y. Bai, S.D. Schrock, and T.E. Mulinazzi. Developing a Sustainable Freight Transportation Framework with the Consideration of Improving Safety and Minimizing Carbon Emissions. Report # MATC-KU: 461. University of Kansas, Lawrence, Kansas, September 2011.
35. Li, Y.⁽¹⁾, Y. Bai, S.D. Schrock, and T.E. Mulinazzi. Modeling Truck Speed in the Upstream of One-Lane Two-Way Highway Work Zones: Implications on Reducing Truck-Related Crashes in Work Zones. Report # MATC-KU: 362. University of Kansas, Lawrence, Kansas, July 2011.

34. Rescot, R.A.⁽¹⁾ and S.D. Schrock. Evaluation of Lenexa's 95th Street Corridor Signal Improvement. Report No. 2011-Lenexa-1. University of Kansas, Lawrence, Kansas, February 2011.
33. Schrock, S.D., H. Zeng⁽¹⁾, and R.L. Parsons. Development of an Enhanced T-LINK Calculator. Report No. 0064934-1. University of Kansas, Lawrence, Kansas, February 2011.
32. Schrock, S.D., R.A. Rescot⁽¹⁾, and T.E. Mulinazzi. Evaluation of the Impact of the Edgerton, Kansas Intermodal Freight Facility. Report 0063576-01. University of Kansas, Lawrence, Kansas, October 2010.
31. Schrock, S.D. and G. Hages⁽¹⁾. Mobility and Land-Use Enhancements Enabled by Automated Small- Vehicle Transport Technologies. Report No. 63594-4. University of Kansas, Lawrence, Kansas, April 2010.
30. Schrock, S.D., K. Heaslip, M.-H. Wang⁽²⁾, R. Jasrotia⁽¹⁾, R. Rescot⁽¹⁾, and B. Brady⁽¹⁾. A Closed Course Feasibility Analysis of Temporary Rumble Strips for Use in Short Term Work Zones. University of Kansas, Lawrence, Kansas, February, 2010.
29. Mulinazzi, T.E., S.D. Schrock, R.A Rescot⁽¹⁾, R. Jasrotia⁽¹⁾, K. Hovey⁽¹⁾, Y. Li⁽¹⁾, and J. Pohlman⁽¹⁾. Mitigating Wind Induced Truck Crashes. Report No. 25-1121-0001-263. University of Kansas, Lawrence, Kansas, December 2009.
28. Bai, Y., S.D. Schrock, T.E. Mulinazzi, W. Hou⁽¹⁾, C. Liu⁽¹⁾, and U. Firman⁽¹⁾. Estimating Highway Pavement Damage Costs Attributed to Truck Traffic. University of Kansas, Lawrence, Kansas, September 2009.
27. Schrock, S.D. and G. Hages⁽¹⁾. Environmental Benefit-Cost Analysis for the Proposed Personal Rapid Transport System at the Kansas Speedway Area. Report No. KU-63594-3. University of Kansas, Lawrence, Kansas, September 2009.
26. Schrock, S.D., C.B. Young, and D. Chellamani⁽¹⁾. Review and Analysis of the Kansas Department of Transportation Maintenance Quality Assurance Program. Report No. 0049580-1. University of Kansas, Lawrence, Kansas, August 2009.
25. Schrock, S.D., W. Wang, C.F. See⁽¹⁾, D. Chellamani⁽¹⁾, M. Sarangapani, and T.E. Mulinazzi. Evaluation of Rapid Deployment Mesh Networking for Work Zones. Report No. 45100-1. University of Kansas, Lawrence, Kansas, May 2009.
24. Schrock, S.D., C.F. See⁽¹⁾, J. Saadi⁽¹⁾, W.K. Chong, and Y. Bai. Evaluation of Technology-Enhanced Flagger Devices: Focus Group and Survey Studies in Kansas. Report No. 48360-1. University of Kansas, Lawrence, Kansas, April 2009.
23. Schrock, S.D. and G. Hages⁽¹⁾. A Review of Code Compliance Issues for a Proposed Automated Small-Vehicle Transport System at the Kansas Speedway Area. Report No. 63594-2. University of Kansas, Lawrence, Kansas, February 2009.
22. Perlmutter, D.D., M.-H. Wang⁽²⁾, and S.D. Schrock. Top Transportation and Energy Issues Facing the Nation. Transportation Research Institute, University of Kansas, Lawrence, Kansas, January 2009.
21. Schrock, S.D. and G. Hages⁽¹⁾. A Review of Literature on Automated Small-Vehicle Transport Technologies. Report No. 63594-1. University of Kansas, Lawrence, Kansas, November 2008.
20. Schrock, S.D., C.F. See⁽¹⁾, M.T. Becker⁽¹⁾, and T.E. Mulinazzi. Evaluation of Early Merge Static Work Zone Signing in Oklahoma. Report No. 45090-1. University of Kansas, Lawrence, Kansas, August 2008.
19. Schrock, S.D., C.F. See⁽¹⁾, and T.E. Mulinazzi. Public Opinion and Understanding of Advance Warning Arrow Displays Used in Short-Term, Mobile, and Moving Work Zones. Report No. 45110-1. University of Kansas, Lawrence, Kansas, March 2008.
18. Schrock, S.D. Development of a Personal Computer-Based Secondary Task Procedure as a Surrogate for a Driving Simulator. Report No. SWUTC/07/473700-00023-1. Southwest University Transportation Center, Texas Transportation Institute, College Station, Texas, August 2007.

17. Compendium of Student Papers: 2005 Undergraduate Transportation Engineering Fellows Program. Report No. SWUTC/05/473700-00003-10. Schrock, S.D. (Editor). Texas Transportation Institute, College Station, Texas, August 2005.
16. Dudek, C.L., S.D. Schrock, and G.L. Ullman. Impacts of Using Dynamic Features to Display Messages on Changeable Messages Signs. Report No. FHWA-HOP-05-069. FHWA, U.S. Department of Transportation, Washington D.C., August 2005.
15. Ullman, G.L., S.D. Schrock, A.S. Cothron, E. Kraus, and A.P. Voigt. Work Zone Crash Influences on Texas Roadways. Report No. 0-4028-S. Texas Transportation Institute, College Station, Texas, May 2005.
14. Chrysler, S.T. and S.D. Schrock. Field Evaluations and Driver Comprehension Studies of Horizontal Signing. Report No. FHWA/TX-05/0-4471-2. Texas Transportation Institute, College Station, Texas, February 2005.
13. Schrock, S.D., G.L. Ullman, A.S. Cothron, E. Kraus, and A.P. Voigt. An Analysis of Fatal Work Zone Crashes in Texas. Report No. FHWA/TX-05/0-4028-1, Texas Transportation Institute, College Station, Texas, October 2004.
12. Compendium of Student Papers: 2004 Undergraduate Transportation Engineering Fellows Program. Report No. SWUTC/04/473700-00003-9. Schrock, S.D. (Editor). Texas Transportation Institute, College Station, Texas, August 2004.
11. Chrysler, S.T., A.A. Williams, S.D. Schrock, and G.L. Ullman. Traffic Control Devices for Managed Lanes. Report No. FHWA/TX-04/0-4160-16, Texas Transportation Institute, College Station, Texas, April 2004.
10. Schrock, S.D., G.L. Ullman, A.A. Williams, and S.T. Chrysler. Identification of Traveler Information and Decision-Making Needs for Managed Lane Users. Report No. FHWA/TX-04/0-4160-13, Texas Transportation Institute, College Station, Texas, April 2004.
9. Ullman, G.L., A. Tsyganov, R. Machemehl, R. Harrison, and S.D. Schrock. Improved Traffic Control at Complex Work Zones. Report No. 0-4021-S. Texas Transportation Institute, College Station, Texas, November 2003.
8. Compendium of Student Papers: 2003 Undergraduate Transportation Engineering Fellows Program. Report No. SWUTC/03/47370-00003-7. Schrock, S.D. (Editor). Texas Transportation Institute, College Station, Texas, August 2003.
7. Ullman, G.L. and S.D. Schrock. Improving Traffic Control Effectiveness in Complex Work Zones. Report No. FHWA/TX-03/4021-2, Texas Transportation Institute, College Station, Texas, January 2003
6. Ullman, G.L. and S.D. Schrock. Feasibility, Length, and Spacing of Enforcement Pullout Areas for Work Zones. Report No. FHWA/TX-02/2137-2, Texas Transportation Institute, College Station, Texas, October 2001.
5. Ullman, G.L., M.D. Fontaine, S.D. Schrock, and P.B. Wiles. A Review of Traffic Management and Enforcement and Improvement Options at High-Volume, High-Speed Work Zones in Texas. Report No. FHWA/TX-01/2137-1, Texas Transportation Institute, College Station, Texas, February 2001.
4. Maze, T.H., D. Plazak, J. Witmer⁽¹⁾, S.D. Schrock. Access Management Handbook. Center for Transportation Research and Education, Iowa State University, Ames, Iowa, October 2000.
3. Maze, T.H., A. Kamyab, and S.D. Schrock. Evaluation of Work Zone Speed Reduction Measures. Center for Transportation Research and Education, Iowa State University, Ames, Iowa, April 2000.
2. Maze, T.H., S.D. Schrock, and K. VanDerHorst⁽¹⁾. Traffic Management Strategies for Merge Areas in Rural Interstate Work Zones. Center for Transportation Research and Education, Iowa State University, Ames, Iowa, July 1999.
1. Maze, T.H., D. Plazak, C. Albrecht⁽¹⁾, S.D. Schrock, T. Simodynes⁽¹⁾, T. Sanchez, P. Chow, and P. Gupta. Access Management Awareness Program Phase II Report. Center for Transportation Research and Education, Iowa State University, Ames, Iowa, December 1997.

- (1) Student author.
- (2) Post-Doctoral Researcher or Research Associate author.



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Google Scholar Citation Indices

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PRESENTATIONS AND INVITED TALKS

- 107. S.D. Schrock and E.J. Fitzsimmons. “Traffic Assistance Services for Kansas: MUTCD for Technicians.” Garden City, Kansas, February 5, 2019.

106. S.D. Schrock. "But the Other Guy Is Doing It!: Engineering Ethics for Today's Competitive Landscape." 2019 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, January 27 6, 2019. Invited presentation.
105. S.D. Schrock. "The University of Kansas Transportation Center." Kansas County Highway Association, Overland Park, Kansas, October 17, 2018. Invited presentation.
104. S.D. Schrock and E.J. Fitzsimmons. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Hutchinson, Kansas, May 17, 2018.
103. S.D. Schrock and E.J. Fitzsimmons. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Chanute, Kansas, March 13, 2018.
102. S.D. Schrock and E.J. Fitzsimmons. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Topeka, Kansas, January 26, 2018.
101. S.D. Schrock. "Work Zone Signing and Safety." 61st Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 7, 2017. Invited presentation.
100. S.D. Schrock. "KDOT/MODOT Research Peer Exchange, Perspective from the University of Kansas." A presentation to the KDOT/MODOT Research Peer Exchange. Kansas City, Kansas, October 17, 2017. Invited presentation.
99. S.D. Schrock. "Improving the Traffic Safety Culture in Kansas." A presentation to the Kansas Department of Transportation Research Program Council Meeting. Topeka, Kansas, September 18, 2017. Invited presentation.
98. S.D. Schrock, A. Kondyli, and V. Kummetha. "KCITE/ITE Student Chapter Joint Meeting." Lawrence, Kansas, September 14, 2017. Invited presentation.
97. S.D. Schrock and E.J. Fitzsimmons. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Lawrence, Kansas, June 1, 2017.
96. S.D. Schrock and E.J. Fitzsimmons. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Norton, Kansas, May 16, 2017.
95. S.D. Schrock. "Work Zone Signing, Flagging, and Safety Training." Ottawa, Kansas, March 27, 2017.
94. S.D. Schrock and E.J. Fitzsimmons. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Hutchinson, Kansas, March 15, 2017.
93. S.D. Schrock. "University of Kansas Transportation Research Update." Central Section IMSA/KAUTC Meeting, Lawrence, Kansas, March 8, 2017. Invited presentation.
92. S.D. Schrock. "What Engineers Need to Know about Traffic Safety." 2017 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, March 6, 2017. Invited presentation.
91. H. Cai, S.D. Schrock, and E.J. Fitzsimmons. "Self-Deicing LED Signals." 96th Annual Meeting of the Transportation Research Board, Washington D.C., January 9, 2017.
90. S.D. Schrock and R.W. Stokes. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Garden City, Kansas, May 17, 2016.
89. S.D. Schrock. "Chemical Stabilization of Unstable Trackbeds." Joint Rail Conference, Columbia, South Carolina, April 14, 2016.
88. S.D. Schrock. "Human Behavior at Railroad Grade Crossings." Joint Rail Conference, Columbia, South Carolina, April 13, 2016.
87. S.D. Schrock. "Advancing Pedestrian Safety and Case Study of Pedestrian Psychology at Railroad Grade Crossing." Joint Rail Conference, Columbia, South Carolina, April 13, 2016.
86. S.D. Schrock. "Work Zone Signing, Flagging, and Safety Training." Ottawa, Kansas, March 30, 2016.
85. S.D. Schrock and R.W. Stokes. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Topeka, Kansas, March 29, 2016.

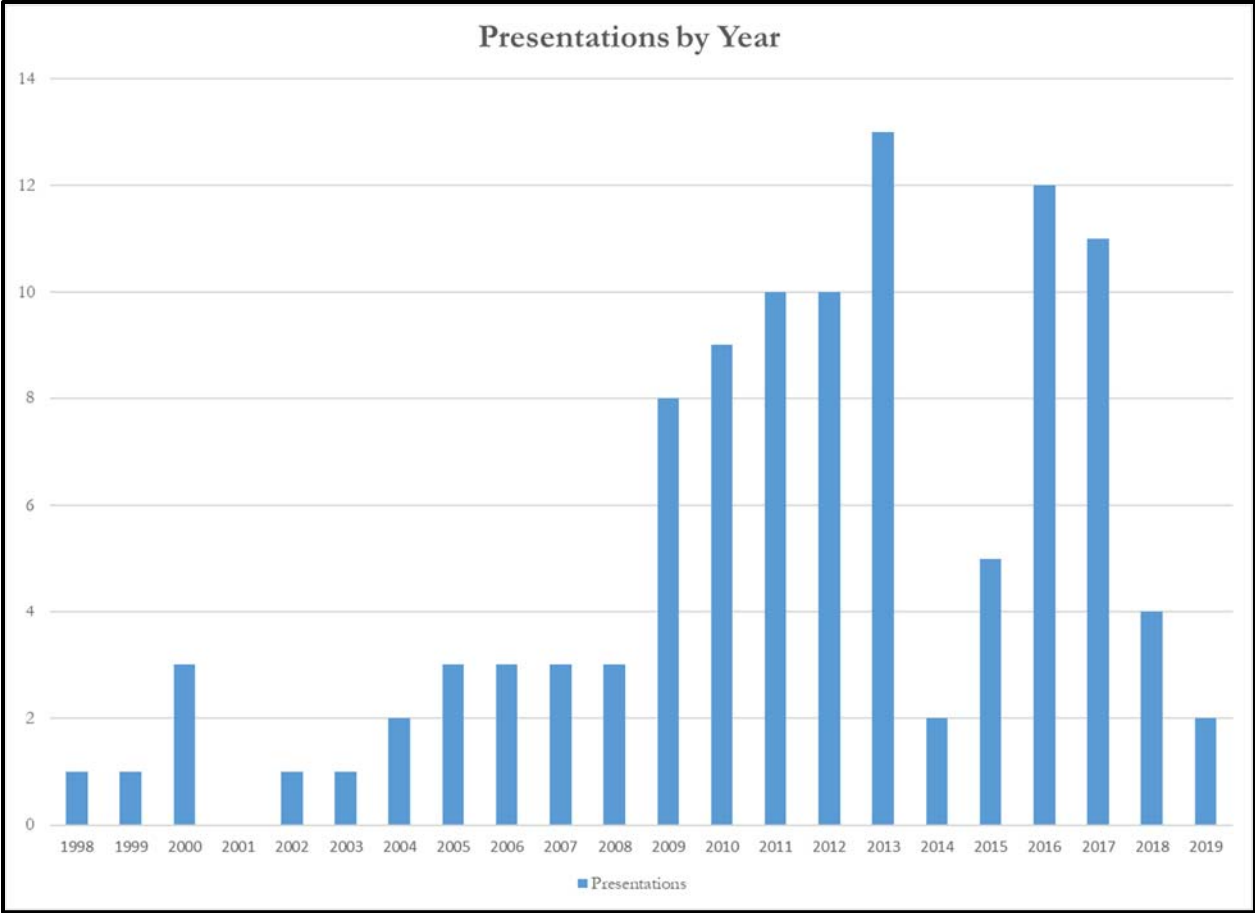
84. S.D. Schrock. "Getting Ahead Without Taking Shortcuts: Engineering Ethics for the Modern World." 2016 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, February 8, 2016. Invited presentation.
83. S.S. Patil and S.D. Schrock. "Operational Evaluation of Portable Traffic Signals in Conjunction with Pilot Car Operations at Two-Lane, Two-Way Rural Highway Work Zones." 95th Annual Meeting of the Transportation Research Board, Washington D.C., January 12, 2016.
82. T.E. Lindheimer and S.D. Schrock. "Evaluation of Confirmation Lights on Red Light Running Violations by Time-Into-Red Analysis." 95th Annual Meeting of the Transportation Research Board, Washington D.C., January 11, 2016.
81. S.D. Schrock. "Development of a Decision Matrix and Specifications for Portable Temporary Rumble Strips for Short-Term Work Zones." 95th Annual Meeting of the Transportation Research Board, Washington D.C., January 11, 2016.
80. H.J. Mohammed and S.D. Schrock. "Accuracy of Traffic Speed and Volume Data Detected Using Radar Technology." 95th Annual Meeting of the Transportation Research Board, Washington D.C., January 11, 2016.
79. S.D. Schrock and R.W. Stokes. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Hutchinson, Kansas, January 5, 2016.
78. S.D. Schrock. "The Dynamics of Engineering Teaching (for engineering GTAs)." About Teaching: A Conference for New GTAs, Center for Teaching Excellence, University of Kansas, August 17, 2015. Invited presentation.
77. S.D. Schrock. "Current KU Traffic Research Studies." Central Section of the International Municipal Signal Association/Kansas Associate of Uniform Traffic Control Spring 2015 Meeting, Lawrence, Kansas, March 10, 2015. Invited presentation.
76. H. Cheng and S.D. Schrock. "Implications of Congestion Charging for Morning Commute Choice in Beijing, China: Discrete Choice Model of Combined Departure Time and Route." 94th Annual Meeting of the Transportation Research Board, Washington D.C., January 13, 2015.
75. S.D. Schrock. "Economic Impact of Closing Structurally Deficient or Functionally Obsolete Bridges on Very Low-Volume Roads." 94th Annual Meeting of the Transportation Research Board, Washington D.C., January 11, 2015. Invited presentation.
74. S.D. Schrock and R.W. Stokes. "Traffic Assistance Services for Kansas: MUTCD for Technicians." Hutchinson, Kansas, January 6, 2015.
73. S.D. Schrock. "Evaluation of Safety Effectiveness of Composite Shoulders, Wide Unpaved Shoulders, and Wide Paved Shoulders in Kansas." 96th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 9, 2014. Invited presentation.
72. S.D. Schrock. "Economic Impact of Closing Structurally Deficient or Functionally Obsolete Bridges on Very Low-Volume Roads." 93rd Annual Meeting of the Transportation Research Board, Washington D.C., January 15, 2014.
71. S.D. Schrock. "Work Zone Night Lighting and Work Zone Intrusion." 57th Annual Asphalt Paving Conference, University of Kansas, December 5, 2013. Invited presentation.
70. S.D. Schrock. "Update on Transportation Research at KU." Kansas Associate of Uniform Traffic Control Fall 2013 Meeting, Emporia, Kansas, October 2, 2013. Invited presentation.
69. S.D. Schrock. "The Dynamics of Engineering Teaching (for engineering GTAs)." About Teaching: A Conference for New GTAs, Center for Teaching Excellence, University of Kansas, August 19, 2013. Invited presentation.
68. S.D. Schrock. "Evaluation of Large Truck Crashes at Horizontal Curves on Two-Lane Rural Highways in Kansas." Mid-Continent Transportation Research Symposium 2013, Ames, Iowa, August 15, 2013.
67. S.D. Schrock. "The Economics of Closing Bridges on Very Low Volume Rural Roads in Kansas." Mid-Continent Transportation Research Symposium 2013, Ames, Iowa, August 15, 2013.

66. S.D. Schrock. "Civil, Environmental, and Architectural Engineering: A Presentation by the CEAE Department." KU Project Discovery Engineering Summer Camp, Lawrence, Kansas, July 23, 2013. Invited presentation.
65. S.D. Schrock. "Civil, Environmental, and Architectural Engineering: A Presentation by the CEAE Department." KU Project Discovery Engineering Summer Camp, Lawrence, Kansas, June 18, 2013. Invited presentation.
64. S.D. Schrock. "Discussion of Low Cost Intersection Countermeasures to Reduce Red Light Running (RLR)." 95th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 10, 2013. Invited presentation.
63. S.D. Schrock. "What is (Old and) New in Work Zone Traffic Control." 2013 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, March 4, 2013. Invited presentation.
62. E.J. Fitzsimmons and S.D. Schrock. "Evaluation of Truck Crashes on Two-Lane Highway Rural Horizontal Curves in Kansas." 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 15, 2013.
61. R.A. Rescot and S.D. Schrock. "Estimating Turning Movements at Roundabouts Using Bluetooth Technology." 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 15, 2013.
60. S.D. Schrock. "Feasibility Analysis of Using Cellular Phone Location Data in Traffic Survey on Inter-City Trips." 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 14, 2013.
59. H. Zeng and S.D. Schrock. "Safety Effectiveness of Various Types of Shoulders on rural Two-Lane Roads in Winter Period and Non-Winter Period." 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 14, 2013.
58. S.D. Schrock. "On Graduate School." MATC Scholar Program, Lincoln, Nebraska, October 6, 2012. Invited presentation.
57. S.D. Schrock. "The Dynamics of Engineering Teaching (for engineering GTAs)." About Teaching: A Conference for New GTAs, Center for Teaching Excellence, University of Kansas, August 13, 2012.
56. S.D. Schrock. "Civil, Environmental, and Architectural Engineering: A Presentation by the CEAE Department." KU Project Discovery Engineering Summer Camp, Lawrence, Kansas, July 19, 2012. Invited presentation.
55. S.D. Schrock. "Civil, Environmental, and Architectural Engineering: A Presentation by the CEAE Department." KU Project Discovery Engineering Summer Camp, Lawrence, Kansas, June 21, 2012. Invited presentation.
54. S.D. Schrock. "Estimation of Safety Effectiveness of Widening Shoulders and Adding Passing Lanes on Rural Two-Lane Roads." 2012 Highway Safety Engineering Peer Exchange, Oklahoma City, Oklahoma, March 27, 2012. Invited presentation.
53. R. Rescot, S.D. Schrock, and C. Sun. "Use of Non-Aggregated Video Data for Bluetooth Validation." 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2012.
52. H. Zeng and S.D. Schrock. "Estimation of Safety Effectiveness of Composite Shoulders on Rural Two-Lane Highways." 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2012.
51. H. Lubliner and S.D. Schrock. "Calibration of Highway Safety Manual Prediction Method for Rural Kansas Highways." 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2012.
50. C. Bornheimer and S.D. Schrock. "Developing a Regional Safety Performance Function for Rural Two-Lane Highways." 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2012.

49. S.D. Schrock. "Use of Cell Phone Network Data in Traffic Data Collection and Long-Haul Truckshed (Geographic Extent) Tracking." 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2012.
48. S.D. Schrock. "Current Issues and Complexities with Nighttime Work Zones: Safety, Mobility and Construction Issues." Lorman Education Services, Webinar, December 20, 2011. Invited presentation.
47. S.D. Schrock and E. Peltier. "Careers in Engineering." Wichita Southeast High School, Wichita, Kansas, December 19, 2011. Invited presentation.
46. S.D. Schrock. "Deriving Cross-Region Commuting Traffic and Potential Transit Demand Using Cellular Phone Position Data." 18th ITS World Congress, Orlando, Florida, October 18, 2011.
45. S.D. Schrock. "Evaluation of the Highway Safety Manual Crash Prediction Model for Rural Two-Lane Highway Segments in Kansas." Safety is No Accident - a meeting of the U.S. DOT Office of Small and Disadvantaged Business Utilization, September 14, 2011. Invited presentation.
44. S.D. Schrock. "Estimation of Safety Effectiveness of Widening Shoulders and Adding Passing Lanes on Rural Two-Lane Roads." Transportation Research Board 10th International Conference on Low-Volume Roads, Orlando, Florida, July 26, 2011.
43. S.D. Schrock. "Augmenting Traffic Data with Bluetooth Technology." 93rd Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 13, 2011.
42. S.D. Schrock. "Let's Talk about Highway Safety." 2011 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, March 7, 2011. Invited presentation.
41. M.-W. Wang and S.D. Schrock. "Freight Data Collection Technique and Algorithm Using Cellular Phone Data." 90th Annual Meeting of the Transportation Research Board, Washington D.C., January 26, 2011.
40. M.-H. Wang and C. Bornheimer, and S.D. Schrock. "Evaluation of Portable Plastic Rumble Strips at Short-Term Maintenance Work Zones." 90th Annual Meeting of the Transportation Research Board, Washington D.C., January 26, 2011.
39. H. Lubliner and S.D. Schrock. "Evaluation of Highway Safety Manual Crash Prediction Tools for Two-Lane Rural Highways in Kansas." 90th Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2011.
38. S.D. Schrock. "Safety Projects: Cost-Effectiveness." 54th Annual Asphalt Paving Conference, University of Kansas, December 2, 2010. Invited presentation.
37. S.D. Schrock. "What is Civil Engineering?" University of Kansas Technology Institute, University of Kansas, November 20, 2010. Invited presentation.
36. S.D. Schrock. "The Potential of Cellular Phone Positioning Technology in Travel Behavior and Traffic Impact Studies." 17th ITS World Congress, Busan, Korea, October 28, 2010.
35. S.D. Schrock. "The Dynamics of Engineering Teaching (for engineering GTAs)." About Teaching: A Conference for New GTAs, Center for Teaching Excellence, University of Kansas, August 12, 2010. Invited presentation.
34. S.D. Schrock. "Environmental Aspects of Modern Mobility at the Legends." Modern Mobility Mini-Conference, Kansas City, Kansas, April 23, 2010.
33. S.D. Schrock. "The Future of Transportation." Kansas Transportation Engineering Conference, Manhattan, Kansas, April 14, 2010.
32. S.D. Schrock. "Closed Course Test and Analysis of Temporary Rumble Strips for Short Term Work Zones." Brigham Young University, Provo, Utah, March 25, 2010.
31. S.D. Schrock. "Transportation and a Little about Life." Utah State University, Logan, Utah, March 24, 2010.

30. S.D. Schrock. "Bluetooth Traffic Data Collection: the University of Kansas Experience." Bluetooth Summit, Houston, Texas, February 19, 2010.
29. S.D. Schrock. "Evaluation of Technology-Enhanced Flagger Devices: Focus Group and Survey Studies in Kansas." Mid-Continent Transportation Research Symposium 2009, Ames, Iowa, August 21, 2009.
28. S.D. Schrock. "The Dynamics of Engineering Teaching (for engineering GTAs)." About Teaching: A Conference for New GTAs, Center for Teaching Excellence, University of Kansas, August 13, 2009. Invited presentation.
27. S.D. Schrock. "Use of Monte Carlo Simulation to Evaluate the Kansas Department of Transportation's Maintenance Quality Assurance Program." 12th AASHTO/TRB Maintenance Management Conference, Maryland, July, 20, 2009.
26. S.D. Schrock. "Highway Safety in the U.S." Institute of Transportation Engineering, School of Civil Engineering, Tsinghua University, June 2, 2009. Invited presentation.
25. S.D. Schrock. "Accommodating Pedestrians and Signalized Intersections" 2009 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, February 23, 2009. Invited presentation.
24. S.D. Schrock. "Examination of the Effectiveness of Early Merge Work Zone Signing." 88th Annual Meeting of the Transportation Research Board, Washington D.C., January 13, 2009.
23. C.F. See and S.D. Schrock. "Crash Analysis of Work Zone Lane Closures with Left-Hand Merge and Downstream Lane Shift." 88th Annual Meeting of the Transportation Research Board, Washington D.C., January 13, 2009.
22. S.D. Schrock. "Modification of Driver Behavior Based on Information from Pedestrian Countdown Timers." 88th Annual Meeting of the Transportation Research Board, Washington D.C., January 11, 2009. Invited presentation.
21. S.D. Schrock. "Testing of a Personal Computer-based Secondary Task Procedure as a Surrogate for a Driving Simulator." 87th Annual Meeting of the Transportation Research Board, Washington D.C., January 15, 2008.
20. S.D. Schrock. "Public Opinion and Understanding of Advance Warning Arrow Displays Used in Short-term, Mobile, and Moving Work Zones." 87th Annual Meeting of the Transportation Research Board, Washington D.C., January 14, 2008.
19. S.D. Schrock. "Pedestrian Countdown Timers: Do Drivers Use Them To Increase Safety Or Increase Risk Taking?" 87th Annual Meeting of the Transportation Research Board, Washington D.C., January 14, 2008.
18. S.D. Schrock. and W.K. Chong. "University of Kansas Department of Civil, Environmental, and Architectural Engineering and the KU Transportation Research Institute." 13th Annual Transportation Safety Conference, Wichita, Kansas, April 18, 2007.
17. S.D. Schrock. "Innovations in Work Zone Traffic Control: How To Keep Drivers (and Workers!) Safe in Your Work Zones." 2007 Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, Kansas City, Missouri, February 5, 2007. Invited presentation.
16. S.D. Schrock. and C.L. Dudek. "License Plate and Telephone Numbers in Changeable Message Sign AMBER Alert Messages." 86th Annual Meeting of the Transportation Research Board, Washington D.C., January 22, 2007.
15. S.D. Schrock. and D. Daugherty. "The MUTCD (Manual on Uniform Traffic Control Devices)." 50th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 7, 2006. Invited presentation.
14. S.D. Schrock. "Collecting and Analyzing Work Zone Crash Data: Challenges and Opportunities." 85th Annual Meeting of the Transportation Research Board, Washington D.C., January 24, 2006. Invited presentation.

13. S.D. Schrock. "Flashing Message Features on Changeable Message Signs." 85th Annual Meeting of the Transportation Research Board, Washington D.C., January 23, 2006.
12. S.D. Schrock. "Research on Raised Retroreflective Pavement Marker Improvements." ASTM Annual Meeting, Task Group D04.38.03, Dallas, Texas, December 5, 2005. Invited presentation.
11. S.D. Schrock. "Law Enforcement in Work Zones," Making Work Zones Work Better Workshop, Florida Technology Transfer Center, Orlando, Florida, October 27, 2005. Invited presentation.
10. S.D. Schrock. "Effectiveness of Pavement Marking Lane Direction Arrows for Reducing Wrong-Way Movements on Two-Way Frontage Roads." 84th Annual Meeting of the Transportation Research Board, Washington D.C., January 10, 2005.
9. S.D. Schrock. "Aspects of an Improved TxDOT Work Zone Inspection Form," Texas Engineering Experiment Station Training Workshop, Bryan, Texas, July 21, 2004. Invited presentation.
8. S.D. Schrock. "Comparison of Portable Speed Measurement Devices." 83rd Annual Meeting of the Transportation Research Board, Washington D.C., January 12, 2004.
7. S.D. Schrock. "Recommended Law Enforcement Pullout Area Spacing for Highway Work Zones in Texas." Presented at the 82nd Annual Meeting of the Transportation Research Board, Washington D.C., January 13, 2003.
6. S.D. Schrock. "Survey of State Law Enforcement Personnel on Work Zone Enforcement Practices." 81st Annual Meeting of the Transportation Research Board, Washington D.C., January 16, 2002.
5. S.D. Schrock. "Arterial Dynamic Message Signs: A Synthesis of Existing Practice and Guidelines for Future Use," Advanced Institute, Transportation Systems Operation and Management Mentors Program, College Station, Texas, July 29, 2000.
4. S.D. Schrock. "Evaluation of Rural Interstate Work Zone Traffic Management Plans in Iowa." Mid-Continent Transportation Symposium, Ames, Iowa, May 16, 2000.
3. S.D. Schrock. "Evaluation of Interstate Work Zone Traffic Management Plans Using Simulation." 79th Annual Meeting of the Transportation Research Board, Washington D.C., January 11, 2000.
2. S.D. Schrock. "New Technology in Work Zones." Iowa Department of Transportation Annual Design Conference, Ames, Iowa, February 18, 1999. Invited presentation.
1. S.D. Schrock, C. Albrecht, and T. Simodynes. "Access Management Awareness Program: Report of Case Studies," Presented at the Access Management Conference, Center for Transportation Research and Education, Iowa State University, Ames, Iowa, May 15, 1998.



RESEARCH

Pre-proposals Submitted and Pending at the University of Kansas

Year	Project Title	Sponsor	Role	Proposed Amount
2019	Truck Platooning Deployment Capabilities and Opportunities in Kansas	Kansas Department of Transportation	Co-PI	\$55,000
2019	Investigation of Speed Limit, Design Speed, Operating Speed, and Safety in Kansas	Kansas Department of Transportation	Co-PI	\$67,000
			PI Total	\$0
			Co-PI Total	\$122,000
			Total	\$122,000

Research Grants Submitted and Pending at the University of Kansas

Year	Project Title	Sponsor	Role	Proposed Amount
2018	Cool Science: Art as a Vehicle for Intergenerational Learning	National Science Foundation	PI (KU) Co-PI (Overall Grant)	\$799,323 (KU) (\$2,991,029 overall)
2018	Update for the Transit Manager's Toolkit	National Rural Transit Assistance Program	Co-PI	\$41,060
			PI Total	\$799,323
			Co-PI Total	\$41,060
			Total	\$840,383

Grants Awarded at the University of Kansas

Year	Project Title	Sponsor	Role	Amount
2019	2019 Local Technical Assistance Program	Kansas Department of Transportation	PI	\$600,000
2018	Administrative Activities - University Transportation Centers Open Competition Phase II	Mid-America Transportation Center	PI	\$224,342
2018	Effectiveness of Entertaining Non-Traffic Related Messages on Dynamic Message Signs	Kansas Department of Transportation	Co-PI	\$94,800
2018	Technical Services for the Rural Transit Assistance Program (RTAP): FY 2019	Kansas Department of Transportation	Co-PI	\$186,658
2018	KCATA Ridership Study	Kansas City Area Transportation Authority	PI	\$66,896
2018	2018 Local Technical Assistance Program	Kansas Department of Transportation	PI	\$450,000
2017	Technical Services for the FY 2018 Rural Transit Assistance Program	Kansas Department of Transportation	Co-PI	\$128,574
2017	Traffic Assistance Services for Kansas (TASK) Program FY 2018-2020	Kansas State University	PI	114,893
2017	Promoting Transportation Systems Management & Operations Program in Kansas	Kansas Department of Transportation	Co-PI	\$71,500
2017	Administrative Activities - University Transportation Centers Open Competition 2016	Mid-America Transportation Center	PI	\$253,811
2016	Providing Crash Data Analysis Services for the Kansas Department of Transportation	Kansas Department of Transportation	PI	\$107,617
2016	2017 Traffic Assistance Services for Kansas	Kansas State University	PI	\$30,000
2016	Work Zone Safety Grant Program [Iowa State University prime contractor, total grant \$1,500,000]	Federal Highway Administration (Iowa State University as prime contractor)	PI	187,500
2016	Self De-Icing LED Signals	Kansas Department of Transportation (Pooled Fund)	Co-PI	\$240,000

Year	Project Title	Sponsor	Role	Amount
2016	KU Innovation & Collaboration (KUIC) Proof of Concept (POC)	University of Kansas	Co-PI	\$39,408
2016	Improving the Accuracy and Applicability of Kansas' Traffic Data	Kansas Department of Transportation	Co-PI	\$60,000
2015	2016 Traffic Assistance Services for Kansas	Kansas State University	PI	\$30,000
2015	Evaluation of Ramp Metering Strategies along I-35 in the Kansas City Metropolitan Area	Kansas Department of Transportation	Co-PI	\$59,983
2015	Self De-Icing LED Signals for Railroads and Highway Intersections	National Cooperative Highway Research Program IDEA Program/Rail IDEA Program	Co-PI	\$100,000
2014	2015 Traffic Assistance Services for Kansas	Kansas State University	PI	\$30,000
2014	Developing a Decision Matrix to Improve Rural Road Safety by Investigating Roadside Countermeasure Potential Costs and Benefits	Kansas Department of Transportation	PI	\$60,000
2014	Improving the Traffic Safety Culture in Kansas	Kansas Department of Transportation	PI	\$60,000
2013	Educational Activities through MATC at the University of Kansas FY 2014	Mid-America Transportation Center	PI	\$90,000
2013	2014 Traffic Assistance Services for Kansas	Kansas State University	Co-PI	\$30,000
2013	Development of a Working Prototype of an LED Traffic Signal	University of Kansas Transportation Research Institute	Co-PI	\$34,853
2013	Evaluation of Temporary Traffic Signals at Long Work Zones in Kansas	Kansas Department of Transportation	Co-PI	\$60,000
2013	Evaluation of the Intersection Confirmation Light System to Reduce Red Light Running Violations at Interstate Ramp Intersections	Mid-America Transportation Center	PI	\$60,000
2013	Evaluation of an Electronic Safety Perimeter System for Kansas Temporary Work Zones	Mid-America Transportation Center	Co-PI	\$60,000
2013	Development of Temporary Rumble Strip Specifications	Kansas Department of Transportation	PI	\$60,000
2013	Evaluation of the Confirmation Light System at Signalized Intersections in Medium to Large Iowa Communities to Reduce Red Light Running Violations	Iowa Department of Transportation	PI	\$70,000
2013	Pavement Deterioration Due to Horizontal Hydraulic Fracturing and Wind Farm Development in Kansas	Kansas Department of Transportation	PI	\$56,000
2012	Educational Activities through MATC at the University of Kansas FY 2013	Mid-America Transportation Center	PI	\$71,963
2012	Evaluation of Low-Cost Intersection Countermeasures to Reduce Red Light Running Violations	Mid-America Transportation Center	PI	\$63,384
2012	Stabilization of Unpaved Shoulders using Geosynthetics	Kansas Department of Transportation	Co-PI	\$68,000
2012	Evaluation of Low-Cost Intersection Countermeasures to Reduce Red Light Running on State Highways in Kansas	Kansas Department of Transportation	PI	\$60,000
2012	Economic Impact of Closing on Low-Volume Rural Bridges	Kansas Department of Transportation	Co-PI	\$20,000

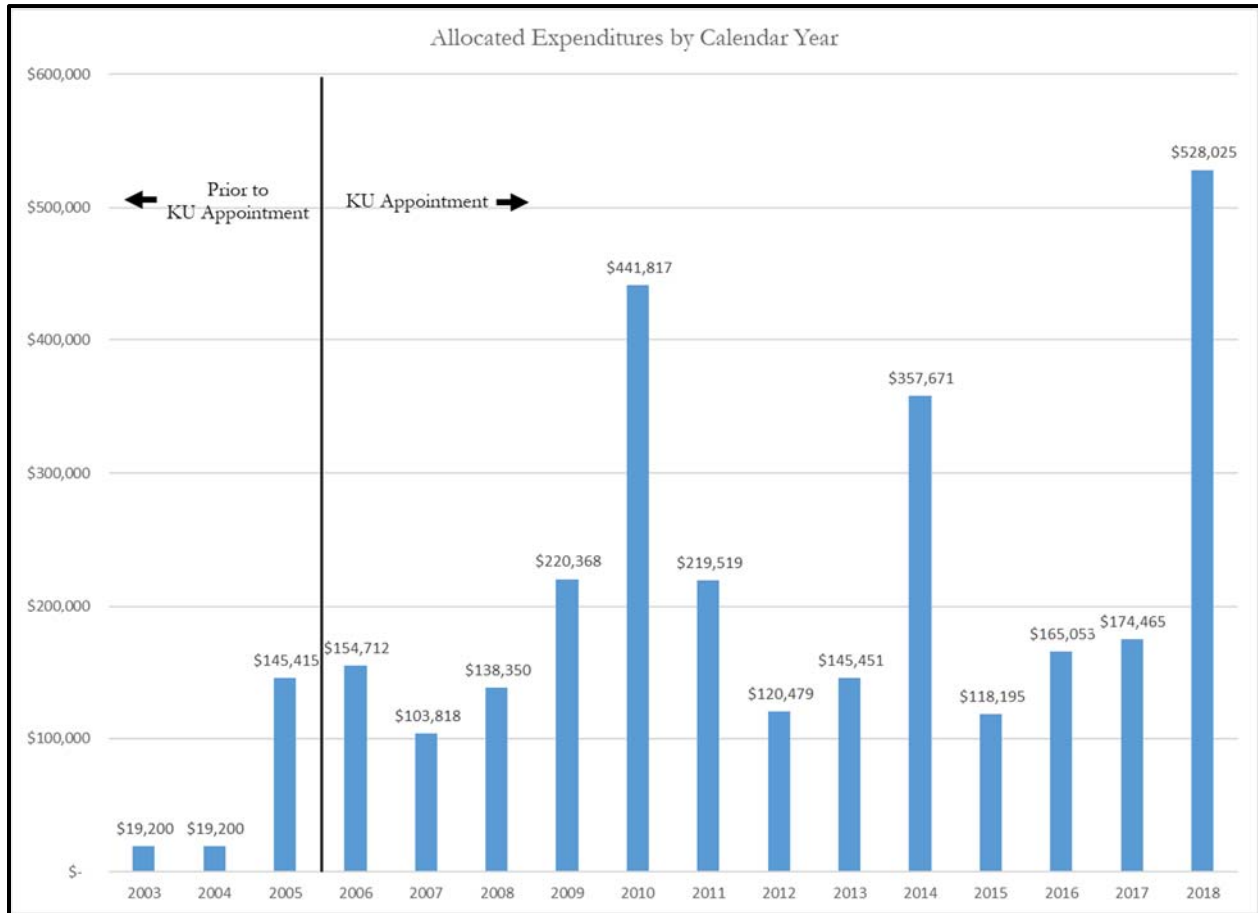
Year	Project Title	Sponsor	Role	Amount
2012	Benchmarking Sustainability Matrix for Federal and State Transportation Practices and Policies	University of Kansas Transportation Research Institute	Co-PI	\$30,000
2011	Educational Activities through MATC at the University of Kansas FY 2012	Mid-America Transportation Center	PI	\$32,840
2011	Development of Modification Factors for Truck Related Crashes at Bridge Sites on Highway Operations	Mid-America Transportation Center	PI	\$15,000
2011	Bluetooth Origin/Destination (OD) Demand Validation Study Using Video	University of Missouri	PI	\$1,500
2010	Educational Activities through MATC at the University of Kansas FY 2011	Mid-America Transportation Center	PI	\$39,487
2010	Statistical Modeling to Identify Heavy Truck Critical Crash Locations in Kansas	Mid-America Transportation Center	PI	\$62,938
2010	Evaluation of Incremental Paved Shoulder Width Safety Benefits in Kansas	Kansas Department of Transportation	PI	\$48,000
2010	Determining the Effectiveness of Graphic-Aided Dynamic Message Signs in Work Zones	Smart Work Zone Deployment Initiative	Co-PI	\$47,588
2009	Educational Activities through MATC at the University of Kansas FY 2010	Mid-America Transportation Center	PI	\$32,120
2009	Analysis of the Costs Associated with the Use of Shoofly Detours	Kansas Department of Transportation	PI	\$47,250
2009	Improving the Long-Range Tracking Algorithm for use in Tracking Long-Haul Trucks using Cellular Data	Mid-America Transportation Center	PI	\$29,407
2009	Modeling Truck Speed in the Upstream of Two-lane Highway Work Zones: Implications on Reducing Truck-Related Crashes in Work Zones	Mid-America Transportation Center	Co-PI	\$77,187
2009	Development of Improved Positive Protection for Work Zones	Kansas Department of Transportation	PI	\$60,000
2009	Development of Enhanced T-LINK Calculator Software	Kansas Department of Transportation	Co-PI	\$57,000
2009	Bluetooth Travel Time and Origin & Destination Analysis and Demonstrations	Kansas Department of Transportation	PI	\$70,000
2009	Evaluation of Interactive Highway Safety Design Model Crash Prediction Tools for 2-Lane Rural Roads on KDOT Projects	Kansas Department of Transportation	PI	\$50,000
2008	Educational Activities through MATC at the University of Kansas FY 2009	Mid-America Transportation Center	PI	\$12,452
2008	Technical Transfer through MATC at the University of Kansas	Mid-America Transportation Center	PI	\$3,000
2008	Educational Activities through MATC at the University of Kansas	Mid-America Transportation Center	PI	\$12,300
2008	KU MATC Administration	Mid-America Transportation Center	Co-PI	\$2,000
2008	Closed Course Testing of Portable Rumble Strips to Improve Truck Safety at Work Zones	Mid-America Transportation Center	PI	\$60,000
2008	Mitigating Wind-Induced Truck Crashes	Mid-America Transportation Center	Co-PI	\$60,000

Year	Project Title	Sponsor	Role	Amount
2008	Estimating Highway Pavement Damage Costs Attributed to Truck Traffic	Mid-America Transportation Center	Co-PI	\$60,000
2008	Mobility and Land-Use Enhancements Enabled by Automated Small-Vehicle Transport Technologies	University of Kansas Transportation Research Institute	PI	\$22,500
2008	Evaluation of Innovative Traffic Safety Devices at Short Term Work Zones	Kansas Department of Transportation	PI	\$60,000
2008	Evaluation of the Impact of the Gardner, Kansas Intermodal Freight Facility	Kansas Department of Transportation	PI	\$35,000
2008	Development of an Interactive E-Training Program for Work Zone Safety and Mobility	Kansas Department of Transportation	Co-PI	\$60,000
2008	Using Cellular Data to Determine the Truckshed of Intermodal Facilities	Mid-America Transportation Center	PI	\$60,000
2008	Network Safety Impacts of Rail-Truck Intermodal Facilities	Mid-America Transportation Center	Co-PI	\$60,000
2008	Review and Analysis of the KDOT MQA Program	Kansas Department of Transportation	PI	\$49,318
2007	Safety Analysis of Work Zone Lane Closures with Left-Hand Merge and Downstream Lane Shift	University of Kansas Center for Research	PI	\$8,000
2007	Improving Highway Work Zone Safety	University of Kansas Transportation Research Institute	Co-PI	\$180,000
2007	Evaluation of Technology-Enhanced Flagger Devices	Smart Work Zone Deployment Initiative	PI	\$48,036
2006	Research Equipment Grant	University of Kansas Transportation Research Institute	PI	\$36,635
2006	Development of Guidelines for the Use of Multiple Arrow Panels in Short-Term, Short Duration, and Mobile Work Zones	Smart Work Zone Deployment Initiative	PI	\$40,510
2006	Evaluation of Rapid Deployment Mesh Networking for Work Zones	Smart Work Zone Deployment Initiative	PI	\$45,962
2006	Evaluation of the Early Merge Left Concept	Smart Work Zone Deployment Initiative	PI	\$49,923
			PI Total	\$3,178,584
			Co-PI Total	\$1,887,551
			Total	\$5,066,135

Research Grants Awarded at The Texas Transportation Institute

Year	Project Title	Sponsor	Role	Amount
2005	Development of Guidelines for Handling Pedestrians in Temporary Traffic Control Areas	Texas Department of Transportation	PI	\$252,430
2003	Development of Secondary Task Tools for Laptop-Based Driver Surveys to Correlate Results with the Driving Simulator	Southwest University Transportation Center	PI	\$57,600
			PI Total	\$ 310,030

Allocated Research Expenditures by Calendar Year



Patents and Inventions

1. Cai, H., S.D. Schrock, and E.J. Fitzsimmons. Heated Lens Lighting Arrangement. United States and International Patent Application 14/915,468. Provisional patent filing date, August 30, 2013. United States Provisional Patent Application No. 61/872,562. Provisional patent was titled: A New LED Traffic Signal Lighting System for Melting Snow and Ice. Provisional patent in force from August 30, 2013 to August 29, 2014. United States patent application filing date February 29, 2016. United States Patent Application No. PCT/US14/53503. Filing date August 29, 2014. Publication date of US Patent Application July 21, 2016. Publication Number US 2016/0209022 A1. United States Patent and Trademark Office Notice of Allowance granted August 21, 2017. Patent number #9,851,086 issued December 26, 2017.

Researchers and Staff Supervised

University of Kansas Transportation Center Staff

10. Emily Wilder, Education Program Coordinator, University of Kansas Transportation Center, 2018 - present.
9. Hemin Mohammed, Road Safety Resource Coordinator, University of Kansas Transportation Center, 2018 - present.

8. Lisa Koch., Transit Research Coordinator, University of Transportation Center, 2018 - present.
7. Toni Dixon., Communications and Outreach Coordinator, University of Transportation Center, 2018 - present.
6. R. McKay Stangler, Ph.D., Communications and Outreach Coordinator, University of Transportation Center, 2018.
5. Mehrdad Givechi, P.E., P.T.O.E., Road Safety Resource Coordinator, University of Kansas Transportation Center, 2017.
4. Lisa Harris. Director, LTAP and RTAP Programs, University of Kansas Transportation Center, 2017 - present.
3. Ming Hsiang “Alice” Kuo, Administrative Assistant, University of Kansas Transportation Center, 2017 - present.
2. Kristin Kelly, MPA, Education Program Coordinator, University of Kansas Transportation Center, 2017 - 2018.
1. Anne Lowder, RTAP Outreach Coordinator, University of Kansas Transportation Center, 2017 - present.

Post-Doctoral Researchers

2. Eric J. Fitzsimmons, Ph.D. The Transportation Research Institute, University of Kansas, 2011 - 2014.
1. Ming-Heng Wang, Ph.D. The Transportation Research Institute, University of Kansas, 2008 - 2011.

Research Associates

4. Shivraj Patil. University of Kansas, 2015.
3. Vishal Sarikonda. University of Kansas, 2015 -2016.
2. Mazharali Udaipurwala. University of Kansas, 2015-2016.
1. Chen Fei See. University of Kansas, 2008.

Visiting Scholars

1. Huan Cheng, from the Beijing Institute of Technology, 2012 – 2014

Graduate Students

28. Hemin Mohammed, Ph.D., University of Kansas, GRA 2017, 2018.
27. Auston Jacobsen, MSCE, University of Kansas, GRA 2017 - present.
26. Akshay Patel, MSCE, University of Kansas, Graduate Student Worker, 2017.
25. Mohammad Shehada, MSCE, University of Kansas, Graduate Student Worker, 2015 - 2016.
24. Vishal Kummetha, MSCE, University of Kansas, Graduate Student Worker, 2015 - 2016, Graduate Research Assistant, 2016.
23. Akshit Ahuja, MSCE, University of Kansas, Graduate Student Worker, 2015 - 2016, GRA 2017 - 2018.
22. Allison Bruner, MSCE, University of Kansas, GRA 2015.
21. Sampath Kadiyala, MSCE, University of Kansas, Graduate Student Worker, 2014, GRA 2015 - 2016.
20. Christopher Novosel, MSCE, University of Kansas, GRA 2013-2014.
19. Mazharali Udaipurwala, MSCE, University of Kansas, Graduate Student Worker 2013, 2015, GRA 2014.
18. Vishal Sarikonda, MSCE, University of Kansas, Graduate Student Worker 2013, 2015, GRA 2014.

17. LlynnAnn Luellen, MSCE, University of Kansas, Graduate Student Worker 2013.
16. Shivraj Patil, MSCE, University of Kansas, Graduate Student Worker 2013, 2015, GRA 2014.
15. Kimberly Jackson, Ph.D., University of Kansas, GRA 2013.
14. Prathmesh Argade, MSCE, University of Kansas, Graduate Student Worker 2013 - 2014.
13. Eric Kocher, University of Kansas, MSCE expected 2014, Graduate Student Worker 2012 - 2013.
12. Kwaku Boakye, University of Kansas, MSCE expected 2013, Graduate Student Worker 2012, GRA 2012 - 2014.
11. Tomás Lindheimer, Ph.D., University of Kansas, GRA, 2011 – 2014.
10. Rui (Jerry) Jiang, University of Kansas, MSCE expected 2012, Graduate Student Worker, 2010.
9. Xiaoxiao Zhang, MSCE, University of Kansas, GRA 2009 - 2011.
8. Huanghui Zeng, MSCE, University of Kansas, GRA 2009 - 2012.
7. Cheryl Bornheimer, MSCE, University of Kansas, GRA 2009 – 2011.
6. Romika Jasrotia, MSCE, University of Kansas, GRA 2009 - 2011.
5. Deepak Chellamani, MSEE, University of Kansas, GRA 2008 - 2009.
4. Robert Rescot, Ph.D. CE, University of Kansas, GRA 2007 - 2011.
3. Chen Fei See, MSCE, University of Kansas, GRA, 2007 - 2008.
2. Brandon Bundy, MSCE, University of Kansas, GRA, 2006 - 2008.
1. Ravi Agrawal, MSCE, Texas A&M University, GRA, 2004 - 2006.

Undergraduate Students

46. Elizabeth Davidson, University of Kansas, URA, 2018 - present.
45. Caroline Gatti, University of Kansas, URA, 2018 - present.
44. Mitchell Irby, University of Kansas, URA, 2018 - present.
43. Nolan Hicks, University of Kansas, URA, 2018.
42. Katie Tindell, University of Kansas, URA, 2018 - present.
41. Adeyoyin Imam, University of Kansas, URA, 2017.
40. Keishla Pagan-Ortiz, BSCE, University of Kansas, 2015.
39. Freddy Argudo, BSCE, University of Kansas, URA, 2014.
38. Luo Hamateyo, BSCE, University of Kansas, URA, 2014.
37. Lesley Monarres, BSCE, University of Kansas, URA, 2014 - 2015.
36. Carlos Patino, BSCE, University of Kansas, URA, 2014.
35. Rand Khalil, BSCE, University of Kansas, URA, 2014 - 2015.
34. Zifeng Liu, BSCE, University of Kansas, URA, 2014.
33. Allison Bruner, BSCE, University of Kansas, URA 2013 - 2014.
32. Ema Palacios, BAJOUR, University of Kansas, URA 2013.
31. Andrew Glatt, BSCE, University of Kansas, URA 2013.
30. Sami Franiuk, BSCE, University of Kansas, URA 2013.
29. Austin MacDonald, BSCE, University of Kansas, URA 2013.
28. Lauren Marcucci, BSCE, University of Kansas, URA 2013.
27. Ibraheem Aljulajjel, BSCE, University of Kansas, URA 2013 - 2014.
26. Tamara (Alkhuffash) Jerjawi, BSCE, University of Kansas, URA 2012 - 2013.

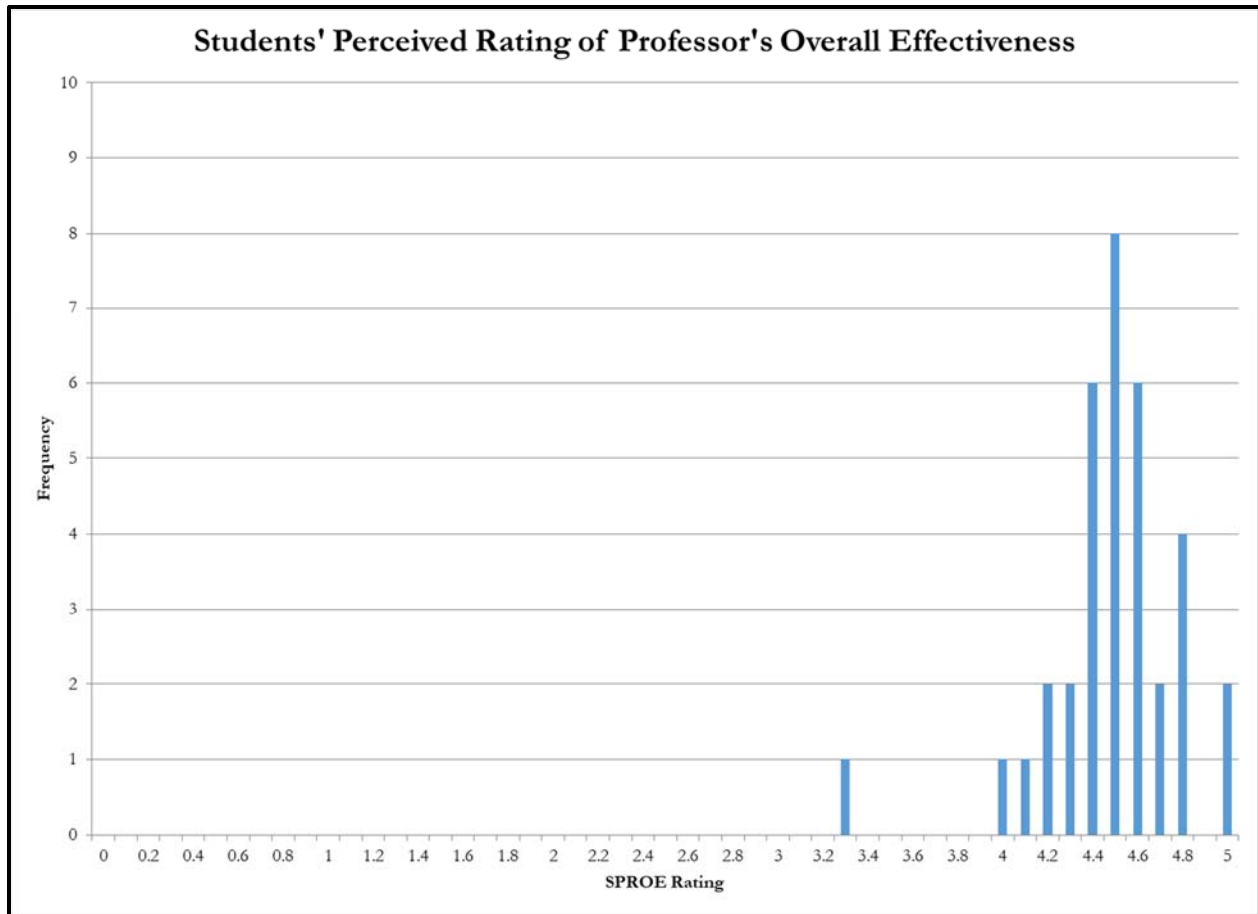
25. Eric Kocher, BSCE, University of Kansas, URA 2012.
24. Ben Mugg, BSCE, University of Kansas, URA 2012.
23. Brett Harding, BSCE, University of Kansas, URA 2010.
22. Sara Thompson, BSCE, University of Kansas, URA 2010 - 2011.
21. Eric Vogel, BSCE, University of Kansas, URA 2010.
20. Christopher Greenhoot, BSCE, University of Kansas, URA 2010.
19. Tiffany Brown, BSCE, University of Kansas, URA 2010 - 2011.
18. Mona Khoshsabegheh, BSCE, University of Kansas, URA 2010 - 2011.
17. Michael Lee Baer, BSCE, University of Kansas, URA 2009 - 2011.
16. Ryan Hagerty, BSCE, University of Kansas, URA 2009 - 2011.
15. Jordan Herbert, BSCE, University of Kansas, URA 2009 - 2010.
14. Jessica Peat, BSCE, University of Kansas, URA 2009 - 2010.
13. Anthony Sands, BSCE, University of Kansas, URA 2009.
12. Cheryl Bornheimer, BSCE, University of Kansas, URA 2009.
11. Garrett Hages, BSCE, University of Kansas, URA 2008 - 2009.
10. Samuel Klein, BSCE, University of Kansas, URA 2008.
9. Kaley Euson, BSCE, University of Kansas, URA 2008 - 2012.
8. Matthew Hinshaw, BSCE, University of Kansas, URA 2008 - 2009.
7. Matthew Becker, BSCE, University of Kansas, URA 2008 - 2009.
6. Jamila Saadi, BSCE, University of Kansas, URA 2007 - 2009.
5. Theresa Rohlf, BSCE, University of Kansas, URA 2007.
4. James Fields, BSCE, Texas A&M University, URA 2005 - 2006.
3. Thomas Hartmann, BSCE, Texas A&M University, URA 2005 - 2006.
2. Bryan Heiner, BSCE, Texas A&M University, URA 2004.
1. Bernard Parks, BSCS, Texas A&M University, URA 2004 - 2005.

TEACHING

Teaching Record

Summary Statistics

Number of different courses taught:	12
Course sections taught:	45
Number of students taught:	720
Average Student Rating of Professor's Overall Effectiveness (SPROE):	4.52
Standard deviation of SPROE score:	0.30



University of Kansas

11. Introduction to Transportation Engineering (CE 480)
 - Spring 2015 (25 students) SPROE: 4.48/5.00
 - Spring 2014 (40 students) SPROE: 4.30/5.00
 - Fall 2013 (21 students) SPROE: 4.42/5.00
 - Spring 2012 (28 students) SPROE: 4.45/5.00
 - Spring 2011 (12 students) SPROE: 4.59/5.00
10. Special Problems (Independent Study) (CE 490)
 - Spring 2016 (1 student) SPROE: N/A
 - Summer 2015 (1 student) SPROE: N/A
 - Spring 2015 (3 students) SPROE: N/A
 - Spring 2012 (3 students) SPROE: N/A
 - Spring 2011 (1 student) SPROE: N/A
9. Transportation Planning and Management (CE 580)
 - Spring 2007 (10 students) SPROE: 4.70/5.00
8. Highway Engineering (CE 582)
 - Fall 2018 (21 students) SPROE: 4.55/5.00
 - Fall 2017 (20 students) SPROE: 4.41/5.00
 - Fall 2016 (19 students) SPROE: 4.60/5.00
 - Fall 2015 (21 students) SPROE: 4.33/5.00
 - Fall 2014 (35 students) SPROE: 3.38/5.00
 - Fall 2013 (38 students) SPROE: 4.03/5.00

- Fall 2012 (26 students) SPROE: 4.46/5.00
- Fall 2011 (41 students) SPROE: 4.53/5.00
- Fall 2010 (26 students) SPROE: 4.62/5.00
- Fall 2009 (27 students) SPROE: 4.62/5.00
- Fall 2008 (23 students) SPROE: 4.83/5.00
- Fall 2007 (10 students) SPROE: 4.67/5.00
- Fall 2006 (18 students) SPROE: 4.21/5.00
- 7. Traffic Engineering Characteristics (CE 781)
 - Spring 2016 (6 students) SPROE: 4.83/5.00
 - Fall 2014 (9 students) SPROE: 4.57/5.00
 - Fall 2012 (11 students) SPROE: 4.71/5.00
 - Fall 2011 (7 students) SPROE: 4.57/5.00
 - Fall 2010 (10 students) SPROE: 4.50/5.00
 - Fall 2009 (7 students) SPROE: 4.62/5.00
 - Fall 2008 (9 students) SPROE: 4.44/5.00
 - Fall 2007 (9 students) SPROE: 4.88/5.00
- 6. Public Works Engineering (CE 782)
 - Fall 2012 (10 students) SPROE: 4.11/5.00
- 5. Railroad Engineering (CE 783)
 - Fall 2018 (5 students) SPROE: 4.60/5.00
 - Spring 2017 (4 student) SPROE: 4.50/5.00
 - Fall 2015 (5 students) SPROE: 5.00/5.00
- 4. Highway Safety (CE 786)
 - Fall 2016 (8 students) SPROE: 4.88/5.00
 - Spring 2009 (Taught as (CE 895-1100)) (5 students) SPROE 4.60/5.00
- 3. Traffic Engineering Operations (CE 881)
 - Spring 2008 (3 students) SPROE 5.00/5.00
- 2. Geometric Design of Traffic Facilities (CE 882)
 - Fall 2017 (5 students) SPROE: 4.25/5.00
- 1. Advanced Special Problems (CE 891)
 - Summer 2017 (1 student)
 - Spring 2015 (2 students)

Texas A&M University

- 1. Traffic Flow Theory (CVEN 617)
 - Fall 2005 (Teaching Assistant, 14 students)
 - Fall 2004 (Teaching Assistant, 13 students)
 - Fall 2000 (Teaching Assistant, 15 students)

Selected Comments from Student Evaluations

- 13. “Thank you for staying super late the night before our presentation. I really appreciated that.” (CE 582, Fall 2017).
- 12. “Amazing teacher. The teacher presented the subject in a matter [sic] that keeps the audience entertained while learning new material.” (CE 768, Fall 2016).
- 11. “[Dr.] Schrock was a great professor, he was really funny and entertaining. He definitely knows how to keep an 8 a.m. class awake. Looking forward to taking CE 582 with him.” (CE 480, Spring 2015).

10. "It's been an amazing class. Learned a lot. Really helpful teacher. Always willing to help. Thank you." (CE 582, Fall 2013).
9. "He is an effective professor and was very fair and sensitive to the needs and opinions of every student." (CE 782, Fall 2012).
8. "Excellent teacher, engaging, gives real world examples, very clear teacher, understands questions and students well." (CE 480, Spring 2012).
7. "Dr. Schrock was well informed and knew the stuff. He is a great professor." (CE 480, Spring 2012).
6. "Dr. Schrock is an effective teacher and does a good job of encouraging class participation." (CE 480, Spring 2011).
5. "Most enjoyable 8:00 a.m. class I've had in a while." (CE 582, Fall 2010).
4. "Dr. Schrock is a wonderful professor. The course was good and [sic] really learned a lot." (CE 781, Fall 2009).
3. "I really enjoyed the class. This class has made [sic] really think about going into Transportation." (CE 582, Fall 2009).
2. Great, fun professor. Was not sure what to expect from this class, but felt like I took a lot out of it." (CE 582, Fall 2009).
1. "Thank you for being the best professor I've had in a long time." (CE 582, Fall 2009).

Student Teaching Assistants Supervised

6. Akshay Patel, University of Kansas, MSCE, GTA 2017 - 2018.
5. Phani Gubbala, University of Kansas, MSCE, GTA 2015.
4. Brandon Vacek, University of Kansas, MSCE, GTA 2014.
3. Kimberly Jackson, University of Kansas, Ph.D. CE, GTA 2012 - 2013.
2. Matthew Hinshaw, University of Kansas, MSCE, 2012, GTA 2010 - 2011.
1. Howard Lubliner, University of Kansas, Ph.D. CE, 2011, GTA 2006 - 2009.

Student Graders Supervised

2. Rand Khalil, University of Kansas, BSCE, Grader, 2015.
1. Kaley Euson, University of Kansas, MSCE, Grader, 2011.

Graduate Committees

Ph.D. Committee Chair

6. Hemin Mohammed, Ph.D. candidate, Civil Engineering, University of Kansas, 2015 - present.
5. Hardy Karim, Ph.D., "Exploratory Analysis of Ramp Metering on Efficiency, and Safety of Freeways Using Microsimulation," Civil Engineering, University of Kansas, 2015.
4. Kimberly Jackson, Ph.D. student, Civil Engineering, University of Kansas, 2012 - 2013. Did not graduate.
3. Tomás Lindheimer, Ph.D., "Long-Term Effects of the Red-Signal Indication Light and Factors that Lead to Red Light Running," Civil Engineering, University of Kansas, 2014.
2. Robert Rescot, Ph.D., "Feasibility of Bluetooth Data as a Surrogate Analysis Measure of Traffic," Civil Engineering, University of Kansas, 2011.
1. Howard Lubliner, Ph.D., "Evaluation of Interactive Highway Safety Design Model Crash Prediction Tools for Two-Lane Rural Highways in Kansas," Civil Engineering, University of Kansas, 2011.

D.E. Committee Chair

1. Mark Hurt, "Substantial Maintenance Practices for Bridges on the Kansas State Highway System," Civil Engineering, University of Kansas, 2013.

M.S. Committee Chair

22. Auston Jacobsen, Civil Engineering, University of Kansas, 2017 - present.
21. Akshit Ahuja, Civil Engineering, University of Kansas, 2015 - 2018. Did not graduate.
20. Jorge Gonzalez, Non-thesis, Civil Engineering, University of Kansas, 2017.
19. Sampath Kadiyala, Civil Engineering, "Benefit-Cost Analysis of Rural Roadside Countermeasures and Evaluation of the Roadside Safety Analysis Program," University of Kansas, 2017.
18. Brandon Vacek, Non-thesis, Civil Engineering, University of Kansas, 2016.
17. Allison Bruner, "Initial Framework for Improving the Traffic Safety Culture in Kansas," Civil Engineering, University of Kansas, 2015.
16. Hemin Mohammed, "Evaluating the Accuracy of Speed and Volume Data Obtained via Traffic Detection and Monitoring Devices," Civil Engineering, University of Kansas, 2015.
15. Shivraj Patil, M.S. "Evaluation of Portable Traffic Signals in Conjunction with Pilot Car Operations at Two-Lane, Two-Way Temporary Rural Work Zones in Kansas," Civil Engineering, University of Kansas, 2015.
14. Vishal Sarikonda, "Development of a Decision Matrix and Specifications for Portable Temporary Rumble Strips," Civil Engineering, University of Kansas, 2015.
13. Mazharali Udaipurwala, "Evaluation of the Intersection Confirmation Light With Targeted Enforcement to Reduce Red Light Running Violations at Freeway Ramp Intersections," Civil Engineering, University of Kansas, 2015.
12. Eric Kocher, M.S. student, Civil Engineering, University of Kansas, 2012 - 2015. Did not graduate.
11. Becky Bonebrake, Non-thesis, Civil Engineering, University of Kansas, 2014.
10. Christopher Novosel, "Evaluation of Advanced Safety Perimeter Systems for Kansas Temporary Work Zones," Civil Engineering, University of Kansas, 2014.
9. Michael Whitlatch, Non-thesis, Civil Engineering, University of Kansas, 2014.
8. Kwaku Boakye, "Evaluation of Blue Confirmation Lights on Red Light Running at Signalized Intersections in Lawrence, Kansas: A Case Study," Civil Engineering, University of Kansas, 2014.
7. Prathmesh Argade, "Quantifying the Effects of Access Management Using VISSIM and SSAM: A Case Study," Civil Engineering, University of Kansas, 2014.
6. Xiaoxiao Zhang, "Evaluation of Incremental Paved Shoulder Width Safety Benefits in Kansas," Civil Engineering, University of Kansas, 2014.
5. Huanghui Zeng, "Estimation of Safety Effectiveness of Composite Shoulders on Rural Two-Lane Highways, Civil Engineering, University of Kansas, 2012.
4. Cheryl Bornheimer, "The Use of Multiple Crash Modification Factors for the Predicted Average Crash Frequency of Rural Two-Lane, Two-Way Roads," Civil Engineering, University of Kansas, 2011.
3. Romika Jasrotia, "Effect on Speed Distribution due to Intrusive and Non-Intrusive Portable Speed Measurement Devices," Civil Engineering, University of Kansas, 2010.
2. Chen Fei See, "Crash Analysis of Work Zone Lane Closures with Left-Hand Merge and Downstream Lane Shift in Arkansas," Civil Engineering, University of Kansas, 2008.

1. Brandon Bundy, "Modification of Driver Behavior Based on Information from Pedestrian Countdown Timers," Civil Engineering, University of Kansas, 2008.

Ph.D. Committee Member

11. Jamal Kakrasul, "Geosynthetic-Reinforced Retaining Walls with Limited Fill Space under Static Footing Loading," Civil Engineering, University of Kansas, 2018.
10. Jun Guo, "Development of Design Guideline for Wicking Geotextile-Improved Pavements," Civil Engineering, University of Kansas, 2017.
9. Shaymaa Kadhim, "Stability Analysis of Geotextile Encased Sand Columns," Civil Engineering, University of Kansas, 2016.
8. Fei Wang, "Analyzing Field Performance of Steel-Reinforced HDPE (SRHDPE) Pipes during Installation and under Traffic Loading," Civil Engineering, University of Kansas, 2015.
7. Kin Yip "George" Kwok, "Assessment of Building Lifecycle Carbon Emissions," Civil Engineering, University of Kansas, 2013.
6. Jitendra Thakur, "Geocell-Reinforced Unpaved and Paved Roads with Recycled Asphalt Pavement (RAP) Bases: Experimental Study and Damage Model Development," Civil Engineering, University of Kansas, 2013.
5. Yilei Huang, "Determining the Effectiveness of Graphic-Aided Portable Changeable Message Signs in Work Zones," Civil Engineering, University of Kansas, 2012.
4. Yue Li, "Analyzing Drivers' Responses to Portable Changeable Message Signs in Rural Highway Work Zones," Civil Engineering, University of Kansas, 2011.
3. Juan Yin, "Behavior-Based Simulation Approach for the Capacity and Traffic Operational Characteristic Study of Four-Way-Stop-Controlled Intersections," Civil Engineering, University of Kansas, 2010.
2. Xiaoming Yang, "Numerical Analyses of Geocell-Reinforced Granular Soils under Static and Repeated Loads," University of Kansas, Civil Engineering, 2010.
1. Ka Wah "Calvin" Chui, "Comparison of Construction Labor Productivity between U.S. and China: Using On-Site Productivity Measurement Methods," Civil Engineering, University of Kansas, 2010.

M.S. Committee Member

16. Mohammad Shehada, "Evaluation of Ramp Metering Algorithms Using Microsimulation," Civil Engineering, University of Kansas, 2018.
15. Vishal Kummetha, "Analysis of the Effects of Adaptive Cruise Control (ACC) on Driver Behavior and Awareness Using a Driving Simulator," Civil Engineering, University of Kansas, 2017.
14. Hao Yuan, "Effectiveness of Wicking Geotextile in Mitigating Freeze-Thaw Problems of Aggregate Bases with Fines," Civil Engineering, University of Kansas, 2017.
13. Phani Gubbala, "The Effect of On-Ramp Demand on Capacity at Merge Bottleneck Locations," Civil Engineering, University of Kansas, 2017.
12. Wessam Mohammed, "Factors Influencing Performance of a Laterally Loaded Pile within an MSE Wall System," Civil Engineering, University of Kansas, 2016.
11. Jay O'Dell, "Homestead Estates and the Necessary Public Improvements," Civil Engineering, University of Kansas, 2015.
10. Jun Guo, "Experimental Studies on Geocells and Mat Systems for Stabilization of Unpaved Shoulders and Temporary Roads," University of Kansas, Civil Engineering, 2014.
9. Harihar Naganathan, "Evaluation of State Sustainable Transportation Indicators (SSTI) Using Comprehensive Analysis Structure," University of Kansas, Civil Engineering, 2013.

8. Milad Jowkar, "Reinforcing Ballast with Geosynthetic Material," University of Kansas, Civil Engineering, 2011.
7. Kelly Hovey, "Evaluation of State Transportation Agencies' Public Involvement Guidelines," University of Kansas, Civil Engineering, 2011.
6. Mark Sai Leong Chan, "Benefits and Cost of Dual-Tasking in a Vigilance Task: A Laboratory and Driving Simulator Investigation," Psychology, University of Kansas, 2008.
5. Mohammed Abdulla, "Best Practices for Construction and Demolition Waste Recycling," Civil Engineering, University of Kansas, 2008.
4. Aaron Frits, "Development of Interim Guidelines for Access Control Adjacent to One-Way Frontage Roads," Civil Engineering, University of Kansas, 2008.
3. Harihar Shiwakoti, "Development of a Rapid Test to Determine Moisture Sensitivity of HMA (Superpave) Mixtures," Civil Engineering, University of Kansas, 2007.
2. Abhishek Joshi, "An Evaluation of University of Kansas' Park and Ride Service," Civil Engineering, University of Kansas, 2007.
1. Jonathan Marburger, "Safety Study: The Application of Tubular Markers and Raised Pavement Markers for Construction Traffic Control in Kansas Work Zones," Civil Engineering, University of Kansas, 2007.

SERVICE

Service to the Profession

22. SAE International Journal of Transportation Safety, paper reviewer, 2018.
21. Journal of Safety Research, paper reviewer, 2016.
20. Traffic Injury Prevention, paper reviewer, 2015.
19. Roadway Safety Institute, University of Minnesota, research peer reviewer, 2014 - 2015.
18. Journal of Advanced Transportation, paper reviewer, 2014.
17. MATC Scholars Program for Native Americans, Organizing Committee Member, 2012 - 2013.
16. Project Panel for NCHRP 17-61: *Work Zone Crash Characteristics and Countermeasure Guidance*, National Cooperative Highway Research Program, Transportation Research Board, National Research Council of the National Academies, invited member, 2011 - 2017.
15. 17th ITS World Congress, session moderator for SP 30, Busan, Korea, October 28, 2010.
14. Accident Analysis & Prevention, paper reviewer, 2008 - 2016.
13. American Society of Civil Engineers Journal of Transportation Engineering, paper reviewer 2007 - 2014.
12. American Society for Engineering Education, paper reviewer, 2007.
11. Institute for Multimodal Transportation, pre-proposal reviewer, 2007.
10. Mid-Continent Transportation Research Symposium Conference Planning Committee, member, 2007, 2009.
9. Midwest Transportation Consortium, pre-proposal reviewer (10 pre-proposals), 2006.
8. Transportation Research Board Committee on Traffic Control Devices, friend, 2005 - present.
7. Institute of Transportation Engineers Brazos Valley Section Nominating Committee, chair, 2005.
6. Transportation Research Board Committee on Traffic Law Enforcement, secretary, 2008 - 2012; member, 2004 - 2012; friend, 2012 - present.
5. Transportation Research Board Committee on Work Zone Traffic Control, paper review coordinator 2013 - present, committee research needs coordinator 2009 - 2015, session moderator 2010, 2015 - 2017, member, 2008 - 2015, friend 2004 - 2008 and 2016 - present.

4. Institute of Electrical and Electronics Engineers Intelligent Transportation Systems Council Conference, paper reviewer, 2004.
3. Transportation Research Record: Journal of the Transportation Research Board of the National Academies, paper reviewer, 2003 - present.
2. Institute of Transportation Engineers Texas A&M University Student Chapter, president, 1999 - 2000, member 1999 - 2006.
1. Institute of Transportation Engineers Iowa State University Student Chapter, president, 1998 - 1999; secretary, 1998.

Service to the University of Kansas

Service to the University

12. Promotion & Tenure Committee, 2018 - present.
11. Transit Commission, member 2015 - 2018.
10. Duke TIP Weekend, "Engineering: Build Your Own Traffic Signal," workshop instructor, 2013.
9. 9th Asia Pacific Transportation Development Conference, Planning committee member, 2011 - 2012.
8. First International Conference on Sustainable Design & Construction, Planning committee member, 2010 - 2011.
7. Transportation Safety Conference Planning Committee, member, 2009 - 2010.
6. Transportation Research Institute Postdoctoral Search Committee, chair, 2008.
5. Best Practices Institute, Center for Teaching Excellence, facilitator, 2008.
4. Transportation Research Institute Strategic Planning Committee, member, 2008.
3. Transportation Research Institute Assistant Director Search Committee, member, 2007.
2. Parking Commission, chair 2008 - 2010, 2012 - 2015; co-chairman, 2007 - 2008; member 2012.
1. Judicial Board, member (1 appeal empaneled), 2007 - 2012.

Service to the School of Engineering

12. School of Engineering Ad-Hoc Honor Code Committee; chair 2018 - present.
11. School of Engineering Commencement Marshal, 2016.
10. Curriculum Committee, interim member, 2015; member 2015 - 2016, chair 2016 - 2018.
9. Sharp Professorship Selection Committee, member, 2014.
8. Facilities Advisory Committee, member, 2013 - 2015.
7. Self Engineering Leadership Fellows Program Interviewer, 2012.
6. Engineering undergraduate recruiting - Wichita Southeast High School, December 19, 2011.
5. School of Engineering Strategic Planning Committee - Transportation Thrust Area, Co-chair, 2010.
4. Engineering Library Committee, 2008 - 2011.
3. Survivor Camp, Lecturer, 2008 - 2009.
2. Project Discovery, Lecturer, 2008 - present.
1. Sabbatical Leave Review Committee, chair, 2006 -2007, 2012 - 2013.

Service to the Civil, Environmental, and Architectural Engineering Department

13. FE Review Session presenter, 2016 (14 students).

12. Sabbatical Leave Review Committee, member 2015 - 2017.
 11. Transportation Engineering Faculty Search Committee, member, 2013 - 2014.
 10. Equipment Committee, member, 2012 - 2013.
 9. Project Discovery Coordinator, 2012 - 2014.
 8. Curriculum Committee, chair, 2012 - present.
 7. Professional Development Series - Wichita, Program Coordinator, 2011.
 6. IT Committee, member, 2008 - 2012.
 5. Chair Search Committee, member, 2007 – 2008, 2012 - 2013.
 4. Science & Practice of Civil, Environmental, and Architectural Engineering Seminar Series, presenter, 2007, 2009, 2011, 2013, 2016, 2017.
 3. Annual Asphalt Paving Conference, session moderator, 2007 - 2009, 2011 - 2012, 2014-2016.
 2. Post-Doctoral Researcher Search Committee, Construction Engineering, member, 2007.
 1. Undergraduate Advising

Fall 2018 (12 students) ⁽³⁾	Fall 2014 (12 students)	Spring 2010 (17 students)
Summer 2018 (2 students)	Spring 2014 (11 students)	Fall 2009 (15 students)
Spring 2018 (15 students) ⁽³⁾	Fall 2013 (11 students)	Spring 2009 (15 students)
Fall 2017 (16 students) ⁽³⁾	Spring 2013 (13 students)	Fall 2008 (28 students)
Spring 2017 (13 students) ⁽³⁾	Fall 2012 (22 students)	Spring 2008 (28 students)
Fall 2016 (15 students) ⁽³⁾	Spring 2012 (14 students)	Fall 2007 (18 students)
Spring 2016 (7 students) ⁽³⁾	Fall 2011 (18 students)	Spring 2007 (18 students)
Fall 2015 (22 students) ⁽³⁾	Spring 2011 (14 students)	Fall 2006 (10 students)
Spring 2015 (8 students)	Fall 2010 (16 students)	
- ⁽³⁾ Senior advising.

Student Organization Advising

3. Disappearing Road Competition, faculty advisor, 2007 - 2008
2. University of Kansas Institute of Transportation Engineers Student Chapter, faculty advisor, 2007 - present
 - MWITE District Meeting House Cup Award, 2017
 - 1st place, MWITE District Traffic Bowl Competition, 2014
 - 1st place, MOVITE Section Student Chapter Competition, 2012
 - 1st place, MWITE District Traffic Bowl Competition, 2011
 - 1st place, MOVITE Section Student Chapter Competition, 2010
 - 1st place, MOVITE Section Spring Meeting Poster Competition, 2010
 - 1st place, MWITE District Traffic Bowl Competition, 2009
 - 1st place, MOVITE Section Student Chapter Competition, 2008
1. ASCE Workshop for Student Chapter Leaders, Milwaukee, Wisconsin, faculty representative, 2007

HONORS AND AWARDS

20. GeoShanghai Prize for Best Paper, Awarded by the GeoShanghai International Conference, “Experimental Study on Geo-Cell Stabilized Unpaved Shoulders,” 2018.
19. 2016 Best Paper Award, Awarded by the TRB Work Zone Traffic Control Committee for the paper, “Model Development for Use of Portable Traffic Signals with Pilot Car Operations at Two-Lane, Two-Way Rural Highway Work Zones,” 2017.
18. ITE Fellow, Institute of Transportation Engineers, 2014.

17. AASHTO “2014 High Value Research” (Sweet 16) Award for research report entitled “Evaluation of Innovative Traffic Safety Devices at Short-Term Work Zones,” 2014.
16. Miller Scholar, University of Kansas School of Engineering, 2008, 2011.
15. Freeway Operations Committee Best Paper Award, Transportation Research Board of the National Academies, 2010.
14. D. Grant Mickle Award for outstanding paper published in the field of operation, safety, and maintenance of transportation facilities, Transportation Research Board of the National Academies, 2008.
13. Best Practices Institute Fellow, Center for Teaching Excellence, University of Kansas, 2007.
12. Dr. William J. Harris Outstanding Doctoral Student SWUTC Region Award, SWUTC, 2006.
11. Graduate Teaching Academy Fellow, Texas A&M University, 2006.
10. TTI Team Award, Texas Transportation Institute, 2005.
 9. Robert Herman Outstanding Student of the Southwest University Transportation Center Award, SWUTC, 2001.
 8. TexITE Student of the Year Award, Texas A&M Chapter, TexITE, 2000.
 7. Greame D. Weaver Distinguished Graduate Assistant Researcher, Texas A&M University, 1999 - 2002.
 6. Advanced Institute for Transportation Systems Operation and Management Fellow, Texas A&M University, 1999 - 2001.
 5. Western Coal Transportation Association Outstanding Student in Transportation Studies Award, Iowa State University, 1999.
 4. MOVITE Student Paper of the Year Award, MOVITE, 1998.
 3. MOVITE Student Scholarship Award, MOVITE, 1998.
 2. Transportation Scholar, Iowa State University, 1997 - 1999.
 1. Undergraduate Student Research Fellow, Iowa State University, 1992 - 1993.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

9. American Society of Civil Engineers, member, 2018 - present.
8. National Center for Faculty Development & Diversity, member, 2016 – present.
7. Order of the Engineer, inducted 2007.
6. American Society for Engineering Education, professional member, 2006 - 2011.
5. Tau Beta Pi, National Engineering Honor Society, inducted 1998.
4. Phi Kappa Phi, National Interdisciplinary Honor Society, inducted 1998.
3. Institute of Transportation Engineers (ITE), fellow, 2014 - present; member, 1997 - 2014.
2. Chi Epsilon, Civil Engineering Honor Society, inducted 1994.
1. American Society of Civil Engineering, student member, 1991 - 1994.

PROFESSIONAL DEVELOPMENT ACTIVITIES

111. 98th Annual Meeting of the Transportation Research Board, Washington D.C., January 13 - 17, 2019.
110. Kansas Association of Counties Annual Meeting, Overland Park, Kan, October 16 - 17, 2018.
109. National Work Zone Management Conference, Herndon, Virginia, September 11 – 13, 2018.
108. 97th Annual Meeting of the Transportation Research Board, Washington D.C., January 7 - 11, 2018.
107. 61st Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 7, 2017.

106. KDOT/MODOT Research Peer Exchange, Kansas City, Kansas, October 17 - 18, 2017.
105. Passenger Railway Engineering Education Symposium (p-REES), Los Angeles, California, July 10 - 12, 2017.
104. 99th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 11-12, 2017.
103. 22nd Annual Transportation Safety Conference, University of Kansas, Wichita, Kansas, April 4 - 5, 2017.
102. 96th Annual Meeting of the Transportation Research Board, Washington D.C., January 8 - 12, 2017.
101. Safe Zone Training, Student Involvement and Leadership Center, University of Kansas, Lawrence, Kansas, November 22, 2016.
100. Crash Reconstruction, Missouri Safety Center, Nixa, Missouri, September 12 - 16, 19 - 23, 2016.
99. Traffic Crash Investigation VI, Missouri Safety Center, Nixa, Missouri, June 15 - 17, 2016.
98. Traffic Crash Investigation V, Missouri Safety Center, Nixa, Missouri, May 11 - 13, 2016.
97. Traffic Crash Investigation IV, Missouri Safety Center, Nixa, Missouri, April 20 - 22, 2016.
96. Joint Rail Conference, Columbia, South Carolina, April 12 - 15, 2016.
95. Traffic Crash Investigation III, Missouri Safety Center, Nixa, Missouri, March 16 - 18, 2016.
94. Traffic Crash Investigation II, Missouri Safety Center, Nixa, Missouri, February 17 - 19, 2016.
93. Traffic Crash Investigation I, Missouri Safety Center, Nixa, Missouri, January 20 - 22, 2016.
92. 95th Annual Meeting of the Transportation Research Board, Washington D.C., January 10 - 14, 2016.
91. 59th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 3, 2015.
90. 97th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 14 - 15, 2015.
89. Central Section of the International Municipal Signal Association/Kansas Association of Uniform Traffic Control Spring 2015 Meeting, Lawrence, Kansas, March 10, 2015.
88. MUTCD Basics: Parts 7 & 9 Traffic Control Devices for School Areas and Bicycle Facilities Webinar, Institute of Transportation Engineers, February 26, 2015.
87. 94th Annual Meeting of the Transportation Research Board, Washington D.C., January 11 - 15, 2015.
86. 58th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 4, 2014.
85. Writing Productivity Pilot Program, University of Kansas, Lawrence, Kansas, November 2014 - May 2015.
84. Making Time to Write: Sustaining Research and Scholarship after Tenure, University of Kansas, Lawrence, Kansas, November 14, 2014.
83. Mid-America CADD Community Conference, Overland Park, Kansas, August 5 - 6, 2014.
82. 96th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 8 - 9, 2014.
81. 93rd Annual Meeting of the Transportation Research Board, Washington D.C., January 12 - 16, 2014.
80. 57th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 5, 2013.
79. Kansas Association of Uniform Traffic Control Fall 2013 Meeting, Emporia, Kansas, October 2, 2013.
78. Mid-Continent Transportation Symposium 2013, Iowa State University, Ames, Iowa, August 15 - 16, 2013.
77. Midwestern District (District 4) Institute of Transportation Engineers Meeting, Milwaukee, Wisconsin, June 26 - 28, 2013.
76. Hydraulic Fracturing Technology and StimPlan User Essentials, a meeting of the KU Society of Petroleum Engineers student chapter, Lawrence, Kansas, May 3, 2013.
75. 95th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 9 - 10, 2013.
74. 2013 NASCO Lunch & Update, Kansas City, Missouri, April 2, 2013.
73. 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 13 - 17, 2013.

72. 56th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 6, 2012.
71. MATC Scholars Program, Lincoln, Nebraska, October 3 - 6, 2012.
70. MOVITE Fall Meeting, Lawrence, Kansas, September 19 - 21, 2012.
69. Transportation Engineering Educators Conference/Workshop, Seattle, Washington, July 31 - August 1, 2012.
68. Midwestern District (District 4) Institute of Transportation Engineers Meeting and TRB Urban Street Symposium, Chicago, Illinois, June 24 - 28, 2012.
67. 94th Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 10 - 11, 2012.
66. 2012 Highway Safety Engineering Peer Exchange, Oklahoma City, Oklahoma, March 26 - 29, 2012.
65. 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 22 - 26, 2012.
64. 55th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 1, 2011.
63. 18th ITS World Congress, Orlando, Florida, October 16 - 20, 2011.
62. Safety is No Accident - a meeting of the U.S. DOT Office of Small and Disadvantaged Business Utilization, Kansas City, Missouri, September 14, 2011.
61. University of Kansas Teaching Summit, Lawrence, Kansas, August 18, 2011.
60. Institute of Transportation Engineers Annual Meeting and Exhibit, St. Louis, Missouri, August 13 - 16, 2011.
59. Transportation Research Board 10th International Conference on Low-Volume Roads, Orlando, Florida, July 24 - 27, 2011.
58. Midwestern District (District 4) Institute of Transportation Engineers Meeting, Dubuque, Iowa, June 26 - 28, 2011.
57. 93rd Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 13, 2011.
56. Highway Safety Manual Train-the-Trainer Workshop, Irvine, California, April 4 - 6, 2011.
55. 90th Annual Meeting of the Transportation Research Board, Washington D.C., January 23 - 27, 2011.
54. School of Engineering Teaching Workshop, University of Kansas, Lawrence, Kansas, January 19, 2011.
53. 54th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 2, 2010.
52. 17th ITS World Congress, Busan, Korea, October 25 - 29, 2010.
51. University of Kansas Teaching Summit, Lawrence, Kansas, August 17, 2010.
50. Midwestern District (District 4) Institute of Transportation Engineers Meeting, Minneapolis, Minnesota, June 27 - 29, 2010.
49. MOVITE Spring Meeting, Kansas City, Missouri, April 28 - 30, 2010.
48. Advanced Transit Association Modern Mobility Mini-Conference, Kansas City, Kansas, April 23, 2010.
47. 92nd Annual Kansas Transportation Engineering Conference, Manhattan, Kansas, April 13 - 14, 2010.
46. 53rd Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 3, 2009.
45. Mid-Continent Transportation Symposium 2009, Iowa State University, Ames, Iowa, August 20 - 21, 2009.
44. University of Kansas Teaching Summit, Lawrence, Kansas, August 18, 2009.
43. 12th AASHTO/TRB Maintenance Management Conference, Maryland, July, 19 - 23, 2009.
42. Midwestern District (District 4) Institute of Transportation Engineers Meeting, Wisconsin Dells, Wisconsin, June 17 - 19, 2009.
41. 15th Annual Transportation Safety Conference, University of Kansas, Wichita, Kansas, April 7 - 8, 2009.
40. 88th Annual Meeting of the Transportation Research Board, Washington D.C., January 11 - 15, 2009.
39. 52nd Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 4, 2008.

38. University of Kansas Teaching Summit, Lawrence, Kansas, August 19, 2008.
37. 14th Annual Transportation Safety Conference, University of Kansas, Topeka, Kansas, April 29 - 30, 2008.
36. Roundabout Design Workshop, NE Roundabouts, St. Louis, Missouri, March 11 - 12, 2008.
35. 87th Annual Meeting of the Transportation Research Board, Washington D.C., January 13 - 17, 2008.
34. 51st Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 6, 2007.
33. Mid-Continent Transportation Symposium, Iowa State University, Ames, Iowa, August 16 - 17, 2007.
32. University of Kansas Teaching Summit, Lawrence, Kansas, August 14, 2007.
31. Midwestern District (District 4) Institute of Transportation Engineers Meeting, St. Louis, Missouri, June 13 - 15, 2007.
30. Center for Teaching Excellence Best Practices Institute, University of Kansas, Lawrence, Kansas, May 22 - 23, 2007.
29. 13th Annual Transportation Safety Conference, University of Kansas, Wichita, Kansas, April 18, 2007.
28. 2007 Workshop for Student Chapter Leaders, American Society of Civil Engineers, Milwaukee, Wisconsin, February 9 - 11, 2007.
27. 86th Annual Meeting of the Transportation Research Board, Washington D.C., January 21 - 25, 2007.
26. School of Engineering Teaching Workshop, University of Kansas, Lawrence, Kansas, January 17, 2007.
25. 50th Annual Asphalt Paving Conference, University of Kansas, Lawrence, Kansas, December 7, 2006.
24. District 9 Institute of Transportation Engineers Summer Meeting, College Station, Texas, June 22 - 24, 2006.
23. 85th Annual Meeting of the Transportation Research Board, Washington D.C., January 22 - 26, 2006.
22. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 11 - 12, 2005.
21. Graduate Teaching Academy, Texas A&M University, College Station, Texas, August 2005 - May 2006.
20. District 9 Institute of Transportation Engineers Summer Meeting, Laredo, Texas, June 23 - 25, 2005.
19. 84th Annual Meeting of the Transportation Research Board, Washington D.C., January 9 - 13, 2005.
18. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 12 - 13, 2004.
17. American Traffic Safety Services Association Exposition, San Antonio, Texas, February 2, 2004.
16. 83rd Annual Meeting of the Transportation Research Board, Washington D.C., January 11 - 15, 2004.
15. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 14 - 15, 2003.
14. 82nd Annual Meeting of the Transportation Research Board, Washington D.C., January 12 - 16, 2003.
13. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 15 - 16, 2002.
12. 81st Annual Meeting of the Transportation Research Board, Washington D.C., January 13 - 17, 2002.
11. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 16 - 17, 2001.
10. District 9 Institute of Transportation Engineers Summer Meeting, Midland, Texas, June 22 - 23, 2001.
9. 80th Annual Meeting of the Transportation Research Board, Washington D.C., January 7 - 11, 2001.
8. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 17 - 18, 2000.
7. Mid-Continent Transportation Symposium, Iowa State University, Ames, Iowa, May 15 - 16, 2000.
6. 79th Annual Meeting of the Transportation Research Board, Washington D.C., January 9 - 13, 2000.

5. Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 12 - 13, 1999.
4. 78th Annual Meeting of the Transportation Research Board, Washington D.C., January 10-14, 1999.
3. Crossroads 2000, Iowa State University, Ames, Iowa, August 19 - 20, 1998.
2. Access Management Conference, Iowa State University, Ames, Iowa, May 15, 1998.
1. 77th Annual Meeting of the Transportation Research Board, Washington D.C., January 8 - 12, 1998.

MEDIA INTERVIEWS

11. "New Simulator Puts Researchers in the Driver's Seat." Kansas Alumni Magazine, The Kansas University Alumni Association, Lawrence, Kansas, No. 6, November 2017.
10. "Engineering Department Works to Study Question of What Makes a Good Driver." University Daily Kansan, http://www.kansan.com/arts_and_culture/engineering-department-works-to-study-question-of-what-makes-a/article_bb70f0e6-8dc1-11e7-9cce-6bac1e15cd04.html, August 30, 2017.
9. "New Driving-Simulator Lab Accelerates Research into Driver Behavior and Vehicle Technology." <http://news.ku.edu/2017/05/26/new-driving-simulator-lab-accelerates-research-driver-behavior-and-vehicle-technology>, June 7, 2017.
8. "Kansas' Roads Are All Goofy Because Nature Always Pwns Logic." Wired.com, <http://www.wired.com/2016/04/kansas-roads-goofy-nature-always-pwns-logic/>, April 28, 2016.
7. "Blue traffic lights reduce red light running." Lawrence Journal-World, newspaper and Internet, <http://m.ljworld.com/news/2014/dec/07/blue-traffic-lights-reduce-red-light-running/>, December 7, 2014.
6. "Bridge-Gate Aside, Traffic Studies Do Not Stop Traffic." NPR Marketplace, radio and Internet, <http://www.marketplace.org/topics/business/bridge-gate-aside-traffic-studies-do-not-stop-traffic>, January 13, 2014.
5. "City To Install Blue Traffic Lights For Catching Drivers Running Red Lights." Lawrence Journal-World, newspaper and Internet, <http://www2.ljworld.com/news/2013/jul/01/city-test-blue-traffic-lights-catching-motorists-r/>, July 1, 2013.
4. "String Of Fatality Accidents In Douglas County Underscores Randomness Of Events." Lawrence Journal-World, newspaper and Internet, <http://www2.ljworld.com/news/2011/jun/06/string-fatality-accidents-douglas-county-underscor/>, June 6, 2011.
3. "Threats to Transportation Include Funding Shortfalls." Lawrence Journal-World, newspaper and Internet, <http://www2.ljworld.com/news/2009/jan/14/threats-transportation-include-funding-shortfalls/>, January 14, 2009
2. "KU Professor Believes Roundabout Right Way." The Topeka Capital-Journal, Newspaper and Internet, http://cjonline.com/stories/071308/loc_303220605.shtml, July 13, 2008.
1. "Driver Fights Late Merging Ordinance." Lawrence Journal-World, newspaper and Internet, http://www2.ljworld.com/news/2008/apr/09/driver_fights_late_merging_ordinance/, April 9, 2008.