Mashrur (Ronnie) Chowdhury, Ph.D., P.E., F. ASCE, Senior Member IEEE

PERSONAL DATA

Eugene Douglas Mays Endowed Professor of Transportation Engineering

Professor, Glenn Department of Civil Engineering

Professor, Department of Automotive Engineering and

International Center for Automotive Research (CU-ICAR)

Director, Intelligent Transportation Systems Laboratory

Co-Director, Complex Systems, Analytics and Visualization Institute (CSAVI)

Lead, Roadway-Driver-Traffic Interaction Group, Connected Vehicle Technology Consortium

Clemson University, Clemson, SC 29634

Phone: 864-656-3313, Email:mac@clemson.edu

EDUCATION

Ph.D., University of Virginia, 1995, Civil Engineering

M.S., Morgan State University, 1991, Transportation Systems

B.S. (Thesis Option), Bangladesh Institute of Technology, 1988, Civil Engineering

PROFESSIONAL REGISTRATION

Registered Professional Engineer (Civil), Ohio, Serial Number: 68454, Date of Issuance: September 2003 (*Obtained by experience*).

Registered Professional Engineer (Civil), Washington, D.C., Serial Number: PE 900293, Date of Issuance: July 2001, Expired: August 2004 (*Obtained by exam and experience*).

PROFESSIONAL EXPERIENCE

Clemson University, SC

August 2015 - Present	Sabbatical Assignment on Connected Vehicle Technology related Data Analytics, BMW Group, Information Management Americas, Innovation Lab
October 2014 - Present	Co-Director, Complex Systems Analytics and Visualization Institute (CSAVI), Clemson University
August 2013 - Present	Lead, Roadway-Driver-Traffic Interaction Group, Connected Vehicle Technology Consortium
August 2012 - Present	Professor of Civil Engineering
January 2011 - Present	Eugene Douglas Mays Professor of Transportation Engineering
October 2011 - Present	Professor of Automotive Engineering
May 2010 - December 2010	IDEaS Professor, College of Engineering and Science

August 2008 - August 2012 Associate Professor of Civil Engineering (*Tenured*)

August 2004 - August 2008 Assistant Professor of Civil Engineering

Nile University, Cairo, Egypt

July 2009- September 2009 Instructor (Developed and taught an on-line course

titled "Applications in Intelligent Transportation

Systems")

University of Dayton, OH

August 2000 - August 2004 Assistant Professor of Civil Engineering

Iteris, Inc., Sterling, VA

March 1997 - August 2000 Senior Intelligent Transportation Systems Engineer

Bellow-McGee Inc. (BMI), Vienna, VA

January 1996 - March 1997 Senior Engineer

June 1994 - December 1995 Engineer II

University of Virginia

August 1991 - May 1994 Research Assistant, Center for Risk Management of

Engineering Systems

U.S. Department of Transportation, McLean, VA

January 1991- August 1991 Graduate Research Fellow

Maryland State Highway Administration, Baltimore, MD

January 1990 - December 1990 Engineering Intern, Highway Information Services

Division

Nirman International Limited, Bangladesh

August 1988 - July 1989 Civil Engineer

Concord Engineers and Construction Limited, Bangladesh

May 1988 - July 1988 Engineer Trainee

SELECTED HONORS AND AWARDS

2015

- Wilbur Smith Distinguished Transportation Educator Award. Award committee included representatives from AASHTO, USDOT, Wilbur Smith Associates, Eno Center for Transportation, Transportation Research Board, and Institute of Transportation Engineers (ITE).
- Siemens Mobility IDEA Contest Second Place Winner, Siemens. Khan, S. (Student) and Chowdhury, M. (Advisor). Dr. Chowdhury will receive \$50,000 worth of traffic management software for his traffic engineering and Intelligent Transportation Systems laboratory.

2014

- Best Student Paper Award, 21st ITS World Congress, Detroit, Michigan. Rahman, M. and Chowdhury, M. (advisor). Paper title, "A Dynamic Routing Strategy in A Cooperative Vehicle Environment".
- *Semifinalist Team*, ACC Clean Energy Challenge 2014 sponsored by the Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE). Presented a business plan to commercialize dynamic wireless charging for electric and plug-in hybrid electric vehicles.
- *High Value Research Project*, SCDOT/FHWA sponsored study titled "Rate of Deterioration of Bridges and Pavements as Affected by Trucks" was selected by the American Association of State Highway and Transportation Officials (AASHTO) as the top ranked high value research projects for the AASHTO Region 2 and was one of the 16 AASHTO National High Value Research Projects for 2014 (Role: Principal Investigator).

2013

Faculty Mentoring Award, College of Engineering and Science, 2013.

2012

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE), 2012.
- *McQueen Quattlebaum Faculty Achievement Award*, College of Engineering and Science; Clemson University, 2012.
- *Invited Speaker*, National Academy of Engineering, Conference on Indo-U.S. Frontiers of Engineering, Arlington, Virginia, March 1-3, 2012.
- *High Value Research Project*, SCDOT/FHWA sponsored study "The Relationship of SCDOT Damage Claims and Lawsuits to Roadway Engineering Safety Issues" was selected by the American Association of State Highway and Transportation Officials (AASHTO) as the top ranked high value research projects for the AASHTO Region 2 and was one of the 16 AASHTO National High Value Research Projects for 2012 (Role: Principal Investigator).

2011

- IEEE Intelligent Transportation Systems Society (ITSS) Board of Governors, Elected for 2011-2013.
- Winning Team in the USDOT Connected Vehicle Technology Challenge. Submission title: "Clemson's Integrated Intelligent Transportation Platform," August 2011.
- Eugene Douglas Mays Professor of Transportation Engineering, College of Engineering and Science; Clemson University, January 2011.
- Clemson University Board of Trustees Award for Faculty Excellence, Clemson University, 2011.
- Daniel B. Fambro Best Student Paper Award, ITE International.

 Bartman, K., Ogle, J., Chowdhury, M., and Dunning, A., "Transit System Evaluation

- Process: From Planning to Realization," 2011.
- Daniel B. Fambro Southern District Best Technical Paper Award, undergraduate paper category. Johnson, J., and Chowdhury, M., "Electric Vehicle Infrastructure Issues and Opportunities," 2011.
- Chi Epsilon Civil Engineering Honor Society faculty member.

2010

- Frank A. Burtner Award for Excellence in Advising; Clemson University, 2010.
- IDEaS Professor, College of Engineering and Science; Clemson University, 2010.
- *Most Outstanding Research Assistant Award*; awarded to Dr. Chowdhury's Ph.D. student Ms. Yan Zhou, Clemson University, 2010.
- *Member of the National Selection Panel*, 2010 USDOT Dwight D. Eisenhower Doctoral Fellowship, One of the three panelists selected by the U.S. Department of Transportation to evaluate candidates from over 200 applicants pursuing Ph.D. degrees at universities around the country.
- Clemson University Board of Trustees Award for Faculty Excellence, Clemson University, 2010.

2009

- *Murray Stokeley Award for Excellence in Teaching*, College of Engineering and Science; Clemson University, 2009.
- *Fellow*, *American Society of Civil Engineers*, elected in 2009.

2008 and Prior to 2008

- *Teaching Fellow*, *Department of Civil Engineering*; University of Dayton, August 2003 May 2004.
- Metro Model Deployment Initiative (MMDI) Coordinator; selected by the U.S. Department of Transportation in 2006; served as the onsite consultant to the USDOT ITS Joint Program Office.
- Graduate Research Fellow at the Turner-Fairbank Highway Research Center; selected by the U.S. Department of Transportation, 1990-1991.
- Student Travel Scholarship to Aspen, CO; for a paper written on Transportation Energy; selected by Transportation 2000, 1990.

MEMBERSHIP

- *Member*, Institute of Transportation Engineers (ITE) (2015 Present).
- **Senior Member**, Institute of Electrical and Electronics Engineers (IEEE) (2010 Present).
- Fellow, American Society of Civil Engineers (ASCE) (November 2009 Present).
- *Member*, American Society of Civil Engineers (ASCE) (August 1993 November 2009).

- *Member*, American Society of Engineering Education (ASEE) (December 2009 Present).
- *Member*, InfraGard-A National Forum, led by the Federal Bureau of Investigation (FBI) for Infrastructure Protection (July 2007 Present).
- Member, International Society of Multiple Criteria Decision Making (MCDM) (2004

 Present).
- *Order of the Engineer*, University of Dayton Chapter (April 30, 2003 (Induction date)).

EDITORIAL ACTIVITIES RELATED TO LEADING RESARCH JOURNALS

Permanent Editorial Responsibilities

- Associate Editor, IEEE Transactions on Intelligent Transportation Systems; IEEE.
- Associate Editor, Journal of Intelligent Transportation Systems (ITS); Taylor and Francis.
- Editorial Advisory Board Member, Transportation Research Part C; Elsevier.
- Editorial Advisory Board Member, Journal of Transportation Security; Springer.
- Editorial Advisory Board Member, International Journal of Distributed Sensor Networks.

Special Editorial Assignments

- Co-Editor, Special Issue of Transportation Research Part C on Connected and Autonomous Vehicles, Anticipated Publication Date: Fall 2015.
- Co-Editor, Special Issue of the Journal of Intelligent Transportation Systems (ITS), 18th ITS World Congress (in-press).
- Co-Chair, Editorial Board, National Research Council's Transportation Research Board Circular on Artificial Intelligence (AI) in Transportation, December 2012.
- Co-Editor, Special Issue of the IEEE Transactions on Intelligent Transportation Systems, Emergent Cooperative Technologies in Intelligent Transportation Systems, Volume 13, No. 1, March 2012.
- Paper Review Coordinator, Transportation Research Board (TRB) Committee on Artificial Intelligence and Advanced Computing Applications (2009, 2010, 2011 and 2012 Annual Meetings and corresponding year journals of the Transportation Research Board).
- *Editor*, Special Issue of the Journal of Intelligent Transportation Systems (ITS), 15th ITS World Congress, Journal of ITS, Vol. 14, Issue 2, May 2010.

SELECTED PROFESSIONAL ACTIVITIES

- Advisor, IEEE ITS Student Chapter, Clemson University (January 2015 present)
- Founding Advisor, Intelligent Transportation Systems of America Clemson University Chapter (February 2012 December 2014).

- Technical Program Committee Member, 2012 IEEE Electric Vehicle Conference, Greenville, SC.
- *Elected Member*, *IEEE ITS Society Board of Governors (BOG)*, 2011-2013.
- Member, Transportation Research Board (TRB) Committee on Artificial Intelligence (AI) and Advanced Computing Applications; Member of the following subcommittees: (1) Research, and (2) Education and Outreach.
 - Co-organizer, Transportation Research Board Workshop on Emergency Preparedness using Artificial Intelligence (AI), Washington, D.C., January 23, 2011.
 - Organizing Committee Member, 2010 TRB Mid-Year Meeting, sessions related to Artificial Intelligence (AI) and Advanced Computing Applications, Minneapolis, MN, July 2010.
- Member, Transportation Research Board (TRB) Committee on Visualization on Transportation (2011 to 2013).
 - Participate in conference calls with members.
 - Review papers for the TRB Annual Meetings and Journal of the TRB.
 - Coordinate activities with the TRB AI and Advanced Computing Applications Committee.
- Member, (1) ASCE Committee on Large Truck, (2) ASCE Committee on Advanced Transportation Technology, (3) ASCE Committee on Transportation Security, (4) ASCE Committee on Transportation Safety.
 - Organizing Committee Member, 2011 ASCE Transportation Congress, Sessions on Advanced Transportation Technology.
 - Organizing Committee Member, 2011 ASCE Transportation Congress, Sessions on Transportation Safety.
 - Organizing Committee Member, ASCE Advanced Transportation Technology Conference held in Boston, MA (Organized two sessions on "Simulations Applications in Transportation" at this ASCE conference held in 2002).
- *Member*, IEEE Organizing Committee Member, *Workshop on Emergent Cooperative Technologies in Intelligent Transportation Systems*; 2010 IEEE Intelligent Transportation System Conference, Portugal, September 2010.
- Member, IEEE P1809 Working Group on Grid Infrastructure for Electric Sourced Transportation; Transportation Task Force, Plug-in Hybrid Subgroup. Participate in bi-weekly conference calls and standard development related activities, since 2010.
- Member, Industrial Electronics Society, Technical Committee on Automotive Technology, since 2010.
- Member, Statistical and Applied Mathematical Sciences Institute (SAMSI), Modeling Flows Group, Modeling Traffic Flows Subgroup, since 2010.
- Founding Advisor, Institute of Transportation Engineers Student Chapter at University of Dayton (February 2002 to 2003).
- Organizing Committee Member, 57th (2003) and 58th (2004) Ohio Transportation Engineering Conference. Organized and facilitated a session on "Human Factors in Page 6 of 28

- Transportation Safety" at the 57th Ohio Transportation Engineering Conference (OTEC).
- Chair, American Society of Civil Engineers (ASCE) Committee on Computing in Transportation, (1996-2000).
- *Co-organizer*, *National Safety Technology Action Plan workshop*, Washington, D.C., sponsored by the Federal Highway Administration, and served as the Moderator for the Vehicle Technology working group in the workshop, (1996).
- *Member*, Consortium for ITS Training and Education (CITE), (2002- Present).
- Proposal Review Panel/Journal Peer Reviewer
 - Reviewer/Panel Member on multiple NSF proposals including the National Engineering Center proposals.
 - Panel Member for the Science, Technology, Engineering and Mathematics (STEM)
 Program proposals for the Department of Homeland Security (DHS), (2008 and 2009).
 - Reviewer, Various U.S. DOT Universities Transportation Center Proposals, (2002-Present).
 - Reviewer of an undergraduate textbook titled *Traffic and Highway Engineering*, 5th Edition; Cengage Learning.
 - American Association for the Advancement of Science proposals
 - Reviewer of Technical Papers for the following journals:

Transportation Science; Transportation Research Records; Institute of Electrical and Electronics Engineers (IEEE) Transactions on Automation Science and Engineering; Institute of Electrical and Electronics Engineers (IEEE) Transactions on Intelligent Transportation Systems; ASCE Journal of Transportation Engineering; ASCE Journal of Computing; Journal of Intelligent Transportation Systems (ITS); Journal of Advanced Transportation, Transportation Research Part C, and Journal of Green Building.

PUBLICATIONS AND PRESENTATIONS (underlined names are those of the students worked under Dr. Chowdhury's direct supervision)

Textbooks

- Chowdhury, M., Amy, A., and Dey, K., "Big Data Analytics in Connected Transportation Systems," Under Development.
- <u>Fries, R.</u>, Chowdhury, M., and Brummond, J., "*Transportation Infrastructure Security Utilizing Intelligent Transportation Systems*," John Wiley & Sons, ISBN-10: 0470286296 (2008).
- Chowdhury, M., and Sadek, A., "Fundamentals of Intelligent Transportation Systems Planning," Artech House, Inc., Norwood, MA, ISBN # 1-58053-160-1, (2003).

Book Chapters

• Chowdhury, M., *ITS Characteristics, web module*, ITS Handbook, World Road Federation, 2015.

- Chowdhury, M., *ITS Capability Development, web module*, ITS Handbook, World Road Federation, 2015.
- Wang, K.C., Bagaria, D., and Chowdhury, M., *Topology Aware Routing and Transmission Scheduling for Highway Sensor Networks*, Distributed Sensor Networks, Chapman and Hall, 2012.
- Chowdhury, M., Paper on *Traffic Engineering, A Dictionary of Transport Analysis*, Edward Elgar Publishing, UK, ISBN # 1843763753, 2010.
- Zhou, Y., and Chowdhury, M., Paper on *High Occupancy Toll Lanes, A Dictionary of Transport Analysis*, Edward Elgar Publishing, UK, ISBN # 1843763753, 2010.
- Chowdhury, M., and Wang, K.C., *Distributed Intelligent Traffic Sensor Network, Book Chapter in Transport Science and Technology*, Elsevier, Amsterdam, Netherlands, ISBN # 0-08-044707-4, 2007.

Refereed Journal Publications

- <u>Dey, K.</u>, Chowdhury, M., Wiecek, M., and Dunning, A., "Infrastructure Damage Cost Recovery Fee for Overweight Trucks A Tradeoff Analysis Framework," *ASCE Journal of Transportation Engineering*, Vol. 141, Issue 7, (2015).
- Rahman, M., Chowdhury, M., Khan, T., and Bhavsar, P., "Improving the Efficacy of Carfollowing Models with a New Stochastic Parameter Estimation and Calibration Method," *IEEE Transactions on Intelligent Transportation Systems*, No. 99, pp 1-13, April 28, (2015).
- <u>Lantz, K., Khan, S.,</u> Ngo, L. B., Chowdhury, M., Donaher, S., and Apon, A., "Potentials of Online Media and Location-<u>b</u>ased Big Data for Urban Transit Networks in Developing Countries," *Transportation Research Record: Journal of the Transportation Research Board*, (2015). In press.
- <u>Dey, K.</u>, Mishra, A., and Chowdhury, M., "Potential of Intelligent Transportation Systems in Mitigating Adverse Weather Impacts to Road Mobility: A Review," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 16, No. 3, pp 1107 1119, (2015).
- Li, Z., Chowdhury, M., Bhavsar, P., and He, Y., "Optimizing the Performance of Vehicle-to-grid (V2g) Enabled Battery Electric Vehicles through a Smart Charge Scheduling Model," *International Journal of Automotive Technology*, Vol. 16, No. 5, pp 827-837, (2015).
- <u>Dey, K.</u>, Chowdhury, M., Pang, W.C., Putman, B.J. and Chen, L., "Estimation of Pavement and Bridge Damage Costs Due to Overweight Trucks," *Transportation Research Record*. Journal of the Transportation Research Board, Vol. 2411, pp 62-71. (2014).
- <u>Tupper, L.</u>, Bausman, D., Chowdhury, M., <u>Bhavsar, P.</u>, "Development of a Professional Services Management Training Program," *Transportation Research Record*, Journal of the Transportation Research Board, 2414(1), pp 29-34. (2014).
- Bhavsar, P., Chowdhury, M., He, Y., Rahman, M., "A Network Wide Simulation Strategy of Alternative Fuel Vehicles", *Transportation Research Part C: Emerging Technologies*, Vol. 40, pp 201-214, (2014).
- Bhavsar, P., He, Y., Chowdhury, M., and Shealy, A., "Energy Consumption Reduction Strategies for Plug-in Hybrid Electric Vehicles with Connected Vehicle Technology in

- Urban Areas," *Transportation Research Record: Journal of the Transportation Research Board*, No. 2424, pp 29 38, (2014).
- Bausman, D., Chowdhury, M., and <u>Tupper, L.</u>, "Best Practices for Procurement and Management of Professional Services Contracts," *ASCE Journal of Professional Issues in Engineering Education and Practice*, Vol. 140, Issue 3, (2014).
- Rahman, M., Chowdhury, M., Xie, Y., and He, Y., "Review of Microscopic Lane-Changing Models and Future Research Opportunities," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 14, No. 4, pp 1942-1956, (2013).
- Fries, R., <u>Anjuman, T.</u> and Chowdhury, M., "Selecting an Asset Management System for Intelligent Transportation Systems," *Public Works Management & Policy*, Vol. 18, Issue 4, pp 322-337, (2013).
- <u>Johnson, J.,</u> Chowdhury, M., <u>He, Y.,</u> and Taiber, J., "Utilizing Real-Time Information Transferring Potentials to Vehicles to Improve the Fast-Charging Process in Electric Vehicles," *Transportation Research Part C: Emerging Technologies*, Vol. 26, pp 352–366, (2013).
- <u>Davis-McDaniel, C.,</u> Chowdhury, M., Pang, W., and <u>Dey, K.,</u> "A Fault-Tree Model for Risk Assessment of Bridge Failure A Case Study for Segmental Box Girder Bridges," *ASCE Journal of Infrastructure Systems, Vol. 19, Issue 3*, (2013).
- Ma, Y., Chowdhury, M., Sadek, A., and Jeihani, M., "Integration of Vehicle Infrastructure Integration (VII) system and Artificial Intelligence (AI) for online travel time prediction," *IEEE Transactions on Intelligent Transportation Systems* Vol. 13, Issue: 3, pp 1369 1382, (2012).
- <u>Duanmu, J.</u>, Taaffe, K., Chowdhury, M., and Michael Robinson, R., "Simulation Analysis for Evacuation under Congested Scenarios: A Case Study," *Simulation: Transactions of the Society for Modeling and Simulation International*, Vol. 88, No. 11, pp 1379–1389, (2012).
- Fries, R., Gahrooei, M., Chowdhury, M., and Conway, A., "Meeting Privacy Challenges While Advancing Intelligent Transportation Systems," *Transportation Research Part C: Emerging Technologies*, Vol. 25, pp 34–45, (2012).
- Sharif, O., Huynha, N., Chowdhury, M., and Vidal J.M., "An Agent-Based Solution Framework for Inter-Block Yard Crane Scheduling Problems," *International Journal of Transportation Science and Technology*, Vol. 1, No. 2, pp 109-130, (2012).
- <u>Duanmu, J.</u>, Chowdhury, M., and Taaffe, K., "Buffering in Emergency Evacuation Logistics for Optimal Traffic Demand Distribution," *Transportation Research Part E: Logistics and Transportation Review*, Vol. 48, Issue 3, pp 684-700, (2012).
- <u>He, Y.</u>, Chowdhury, M., Pisu, P and <u>Ma, Y.</u>, "An Energy Optimization Strategy for Powersplit Drivetrain Plug-in Hybrid Electric Vehicles," *Transportation Research Part C: Emerging Technologies*, Vol. 22, pp 29–41, (2012).
- He, Y., Rios, J., Chowdhury, M., Pisu, P., and Bhavsar, P., "Forward Power-Train Energy Management Modeling for Assessing Benefits of Integrating Predictive Traffic Data into Plug-in-Hybrid Electric Vehicles," *Transportation Research Part D: Transport and Environment*, Vol. 17, Issue 3, pp 201–207, (2012).

- Fries, R., Hamlin, C., Chowdhury, M., Ma, Y., and Ozbay, K., "Operational Impacts of Incident Quick Clearance Legislation: A Simulation Analysis," *Journal of Advanced Transportation*, Vol. 46, Issue 1, pp 1-11, (2012).
- He, Y., Chowdhury, M., Ma, Y., and Pisu, P., "Merging Mobility and Energy Vision with Hybrid Electric Vehicles and Vehicle Infrastructure Integration," *Energy Policy, Modeling Transport (Energy) Demand and Policies*, Vol. 41, pp 599-609, (2012).
- Xie, Y., Chowdhury, M., <u>Bhavsar, P.</u>, and <u>Zhou, Y.</u>, "An Integrated Modeling Approach for Facilitating Emission Estimations of Alternative Fueled Vehicles," *Transportation Research Part D: Transport and Environment*, Vol. 17, Issue 1, pp 15-20, (2012).
- <u>Tupper, L.,</u> Chowdhury, M., Klotz, K., and <u>Fries, R.</u>, "Measuring Sustainability: How Traffic Incident Management through Intelligent Transportation Systems has Greater Energy and Environmental Benefits than Common Construction-Phase Strategies for "Green" Roadways," *International Journal of Sustainable Transportation*, Vol. 6, Issue 5, pp 282-297 (2012).
- Fries, R., Chowdhury, M., and Dunning, A., "Applying Dynamic Traffic Assignment in Modeling Permit-Restricted Parking Utilizing Microscopic Traffic Simulation," Simulation: Transactions of the Society for Modeling and Simulation International, vol. 88 no. 8, pp 936-947, (2012).
- Zhou, Y., Chowdhury, M., Wang, K.C., Bhide, V. and Fries, R., "On-Line Traffic Surveillance: Impacts of Wireless Communications on Video Quality," ASCE *Journal of Transportation Engineering*, Vol. 138, No. 5, (2012).
- Zhou, Y., Chowdhury, M., Wang, K.C., and Ma, Y., "Development of a multi-step analysis method for evaluating wireless traffic surveillance network performance under adverse conditions and relay network topology using a communication network simulator," Simulation: Transactions of the Society for Modeling and Simulation International, Vol. 88 no. 8, pp 948-956, (2012).
- Ma, Y., Fries, R., Chowdhury, M., and <u>Inamdar, I.</u>, "Evaluation of Integrated Allocation of Intelligent Transportation Systems (ITS) Technologies Using Stochastic Incident Generation and Resolution Modeling," *Simulation: Transactions of the Society for Modeling and Simulation International*, Vol. 88, No. 1, pp 123-133, (2012).
- <u>Fries, R.</u>, Dunning, A., and Chowdhury, M., "University Traveler's Value of Potential Real-Time Transit Information," *Journal of Public Transportation*, Vol. 14, No. 2, pp 29-50, (2011).
- Zhou, Y., Hamilton, G., Chowdhury, M., Wang, K.C., and <u>Fries, R.</u>, "Wireless Communication Alternatives for Intelligent Transportation Systems: A Case Study," *Journal of Intelligent Transportation Systems*, Vol. 15, Issue 3, pp 147-160, (2011).
- Fries, R., Chowdhury, M., Ma, Y., and Stephens, L., "Evaluation of Different Contraflow Strategies for Hurricane Evacuation in Charleston," *Journal of Planning and Technology*, Vol.34, Issue 2, pp 139-154, (2011).
- Bartman, K., Ogle, J., Chowdhury, M., and Dunning, A., "Transit system evaluation process: From planning to realization," *ITE Journal*, (2011), (*This paper received the ITE International 2011 Best Student Paper Award*).

- <u>Duanmu J.</u>, Chowdhury, M., and Taaffe K., "A Simulation Modeling Framework for Community-wide Evacuation Planning," *Journal of Transportation Security*, Vol. 4, No. 1, pp 1-18, (2011).
- Sarasua, W.A., Malisetty, P., and Chowdhury, M. "Using a GIS-based, Hitchcock algorithm to optimize parking allocations for special events," *Applied GIS*, Vol. 7, No. 2, pp 1-13, (2011).
- Hovey, P., Chowdhury, M., Zhou, Y., and Fries, R., "Evaluating the Safety Performance of Adding A Two-Way Left-Turn Lane to An Undivided Cross-Section," *Journal of Public Works and Infrastructure*, Vol. 2, No. 4, pp 360-373, (2010).
- Ma, Y., Chowdhury, M., Jeihani, M., and <u>Fries, R.</u>, "Accelerated Incident Detection across Transportation Networks using Vehicle Kinetics and Support Vector Machine (SVM) in Cooperation with Infrastructure Agents," *IET ITS Journal*, Vol. 4, Issue 4, pp 328 337, (2010).
- Sturm, J., Chowdhury, M., Dunning, A., and Ogle, J., "Analysis of Cost Estimation Disclosure in Environmental Impact Statements for Surface Transportation Projects," *Transportation*, Vol. 38, No. 3, pp 525-544, (2010).
- Zhou, Y., Tupper, L., Chowdhury, M., and Klotz, L., "Green Credits Vs. Sustainable Traffic Operations: A Comparison of Contributions to Energy and Emissions Reductions," *Transportation Research Record, Journal of the Transportation Research Board*, Vol. 2163, pp 103-111, (2010).
- Fries, R., Chowdhury, M., Dunning, A., and Gahrooei, M., "Evaluating Real-time Parking Information: Case Study of an Isolated University Campus," *Transportation Research Record, Journal of the Transportation Research Board*, Vol. 2189, pp 1-7, (2010).
- <u>Duanmu, J.,</u> Taaffe, K., and Chowdhury, M., "Patient Transport Times During Mass Population Evacuations," *Transportation Research Record, Journal of the Transportation Research Board*, Vol. 2196, pp 150-158, (2010).
- Ma, Y., Chowdhury, M., Fries, R., and Ozbay, K., "Harnessing the Power of Microscopic Simulation to Evaluate Freeway Service Patrols," *ASCE Journal on Transportation Engineering*, Vol. 135, Issue 7, pp 427-439, (2009).
- Ma, Y., Chowdhury, M., Sadek, A., and Jeihani, M., "Real-Time Highway Traffic Condition Assessment Framework Using Vehicle-Infrastructure Integration (VII) with Artificial Intelligence (AI)," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 10, No. 4, pp 615-627, (2009).
- Atluri, M., Chowdhury, M., <u>Kanhere, N.</u>, <u>Fries, R.</u>, Sarasua, W., and Ogle, J., "Development of a Sensor System for Traffic Data Collection," *Journal of Advanced Transportation*, Vol. 43, No. 1, pp 1-20, (2009).
- Zhou, Y., Chowdhury, M., Martin, J, Wang, K.C., and Westall, J. "Field Performance Study of a Regional WiMAX Network for Intelligent Transportation System Applications," *Transportation Research Record, Journal of the Transportation Research Board*, pp 121-128, (2009).
- Ma, Y., Zhou, Y., Chowdhury, M., Wang, K.C., and <u>Fries, R.</u>, "A Framework for Performance Evaluation of Communication Alternatives for Intelligent Transportation Systems," *Journal of Intelligent Transportation Systems*, No. 13 (3), pp 111-126, (2009).

- <u>Fries, R.</u>, Chowdhury, M., and Dunning, A., "Incident Detection with Traffic Sensors on Urban Highways," *ITE Journal*, Vol. 79, No. 8, pp 69-74, (2009).
- <u>Fries, R.</u>, Chowdhury, M., and Dunning, A., "A Multi-Agency Survey on Institutional Perspectives of Effective Incident Management," *Journal of Public Works & Infrastructure*, Vol. 2.2, pp 150 166, (2009).
- Fries, R., Chowdhury, M., and Trummel, H., "Liabilities of Public Agencies for Intelligent Transportation Systems Projects," *ITE Journal*, Vol. 78, No. 7, pp 69-73, (2008).
- Racha, S., Chowdhury, M., Sarasua, W., and Ma, Y., "Analysis of Work Zone Traffic Behavior for Planning Applications," *Transportation Planning and Technology*, Vol. 31, Issue 2, pp 183 199, (2008).
- <u>Fries, R.</u>, Chowdhury, M., Dunning, A., and Boyles, B., "Transportation Security Framework for a Medium-Size City," *European Journal of Transport and Infrastructure Research* (*EJTIR*), Vol. 8, Issue 1, pp 1-16, (2008).
- <u>Fries, R., Inamdar, I.,</u> Chowdhury, M., Taaffe, K., and Ozbay, K., "Feasibility of Traffic Simulation for Decision Support in Real-time Regional Traffic Management," *Transportation Research Record, Journal of the Transportation Research Board*, No. 2035, pp 169-176, (2007).
- Eckenrode, R., Sarasua, W., Mattox, J., Ogle, J., and Chowdhury, M., "Revisiting the Use of Drone Radar to Reduce Speed in Work Zones: South Carolina's Experience," *Transportation Research Record, Journal of the Transportation Research Board*, No. 2015, pp 19-27, (2007).
- Fries, R., Chowdhury, M., and Ma, Y., "Accelerated Incident Detection and Verification: A Benefit to Cost Analysis of Traffic Cameras," *Journal of Intelligent Transportation Systems*, No. 11(4), pp 191-203, (2007).
- Bhavsar, P., Chowdhury, M., Sadek, A., Sarasua, W., and Ogle, J., "Decision Support System for Predicting Traffic Diversion Impact across Transportation Networks using Support Vector Regression," *Transportation Research Record: Journal of the Transportation Research Board*, No. 2024, pp 100-106, (2007).
- Chowdhury, M., Sadek, A., Ma, Y., Kanhere, N., and Bhavsar, P., "Applications of Artificial Intelligence Paradigms to Decision Support in Real-time Traffic Management," *Transportation Research Record, Journal of the Transportation Research Board*, No. 1968, pp 92-98, (2006).
- Sarasua, W., Davis, W., Chowdhury, M., and Ogle, J., "Development of a Methodology to Estimate the Interstate Highway Capacity for Short-Term Work Zone Lane Closures," *Transportation Research Record, Journal of the Transportation Research Board*, No. 1948, pp 45-57, (2006).
- Chowdhury, M., Derov, N., <u>Tan, P.</u>, and Sadek, A., "Prohibiting Left-Turn Movements at Mid-Block Unsignalized Driveways: A Simulation Analysis," *ASCE Journal of Transportation Engineering*, Vol. 131, No. 4, pp 279-285, (2005).
- Chowdhury, M., and <u>Tan, P.</u>, "A Case Study on Investment Analysis using a Constraint Multiobjective Methodology," *Transportation Research Record, Journal of the Transportation Research Board*, No. 1924, pp 231-237, (2005).

- Chowdhury, M., and <u>Tan, P.</u>, "A Multiobjective Decision Making Framework for Transportation Investments," *Journal of the Transportation Research Forum*, Vol. 43, No. 1, pp 91-104, (2004).
- Chowdhury, M., <u>Derov, N.</u>, <u>Tan, P.</u>, and Stemen, C., "A Survey of State Practices for Restricting Direct Left-Turns from Driveways," *ITE Journal*, Vol. 74, No. 4, pp 40-43, (2004).
- Chowdhury, M., Garber, N., and Li, D., "An Interactive Multi-objective Resource Allocation Methodology for Highway Safety Improvements," *ASCE Journal of Infrastructure Systems*, Vol. 6, No. 4, pp 138-144, (2000).
- Chowdhury, M., Warren, D., Bissell, H., and Taori, S., "Are the Criteria for Setting Advisory Speeds on Curves Still Relevant?" *ITE Journal*, Vol. 68, No. 7, pp 32-45, (1998).
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- Kuzminski, P., Eisele, J.S., Haimes, Y.Y., Garber, N., Li, D., and Chowdhury, M., "Improvement of Highway Safety I: Identification of Causal Factors Through Fault-tree Modeling," *Risk Analysis-An International Journal*, Vol. 15, No. 3, pp 293-312, (1995).

Reviewed Conference Proceedings (full manuscript review)

- Lantz, K., Khan, S., Ngo, L. B.; Chowdhury, M.; Donaher, S. and Apon, A., "Potentials of Online Media and Location-based Big Data for Urban Transit Networks in Developing Countries," *Proceeding of 94th Annual Meeting of the Transportation Research Board, Washington*, D.C., (2015).
- <u>Dey, K.</u>, Putman, B., Chowdhury, M., and <u>Bhavsar, P.</u>, "Quantification of Accelerated Pavement Serviceability Reduction Due to Overweight Truck Traffic," *Proceeding of 94th Annual Meeting of the Transportation Research Board*, Washington, D.C., (2015).
- Rahman, M., Khan, S., Chowdhury, M., Huynh, N., Ogle, J., Dey, K. and Bhavsar, P., "Incident Command System Strategies for Incident Management on Freeways: A Simulation Analysis," *Proceeding of 94th Annual Meeting of the Transportation Research Board, Washington*, D.C., (2015).
- Fries, R., Yousefzadehfard, P., Chowdhury, M., Peterson, S., and Minge, E., "State Efforts towards the Real-time Systems Management Information Program Requirements for Travel Time," *Proceeding of 94th Annual Meeting of the Transportation Research Board*, Washington, D.C., (2015).
- Brown, K., Sarasua, W. A., Ogle, J. H., Mammadrahimli, A., Chowdhury, M., Davis, W. J., and Huynh, N., "Assessment of Crash Location Improvements in Map-Based Geocoding Systems and Subsequent Benefits to Geospatial Crash Analysis," *Proceeding of 94th Annual Meeting of the Transportation Research Board*, Washington, D.C., (2015).
- Gill, J., <u>Bhavsar, P.</u>, Chowdhury M., <u>Johnson, J.</u>, Taiber, J. and Fries, R., "Infrastructure Cost Issues Related to Inductively Coupled Power Transfer for Electric Vehicles," *The 5th International Conference on Ambient Systems, Networks and Technologies*, Hasselt, (2014).

- <u>Li, Z.</u>; <u>Dey, K.</u>, Chowdhury, M. and <u>Bhavsar, P.</u>, "A Connected Vehicle Supported Routing Strategy for Electric Vehicles," *Proceedings of the 21st ITS World Congress*, Detroit, MI, June, (2014).
- Khan, S., Dey, K., Rahman, M.; Lantz, K. and Chowdhury, M., "Potentials For Intelligent Transportation Systems Deployment In Developing Countries- A Case Study," *Proceeding of the 21st ITS World Congress*, Detroit, Michigan, (2014).
- Rahman, M., Chowdhury, M., Khan, T., and Bhavsar, P., "A Parameter Estimation and Calibration Method for Car-Following Models," *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, D.C., (2014).
- <u>Dey, K.,</u> Chowdhury, M. and Wiecek, M. M., "A Tradeoff Analysis for Different Damage Fee Structures for Offsetting Overweight Truck Damage Costs," *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, D.C., (2014).
- <u>Tupper, L.</u>, Bausman, D., Chowdhury, M. and Bhavsar, P., "Development of a Professional Services Management Training Program A Case Study", *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, D.C., (2014).
- <u>Tupper, L.</u>, Chowdhury, M. and Sharp, J., "Tort Liability Risk Prioritization Through the use of Fault Tree Analysis", *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, D.C., (2014).
- Zhou, Y., Chowdhury, M., Wang, K., and Dey, K., "Evaluation of wireless communication performance between adjacent nodes for roadway traffic management applications," *Proceeding of 2013 Transportation Research Board Annual Meeting*, Washington, D.C., (2013).
- Bhavsar, P., He, Y., and Chowdhury, M., "Development of an Integrated Vehicle and Traffic Simulator for an Evaluation of Routing Strategies of Plug-in Hybrid Electric Vehicles," *Transportation Research Board 92nd Annual Meeting*, January, (2013).
- Rios, J., Chowdhury, M., and Pisu, P., "Use of Model Predictive Control to Improve the Fuel Efficiency of Plug-In Hybrid Electric Vehicles," 2012 Society for Advancement of Hispanics/Chicanos and Native Americans in Science National Conference, (2012).
- Johnson, J., Chowdhury, M., He, Y. and Taiber, J., "Facilitating the Battery Charging Process in Electric Vehicles Through Connected Vehicle and Infrastructure," *Proceedings of 2012 Transportation Research Board Annual Meeting*, Washington. D.C., (2012).
- <u>Davis-McDaniel, C.</u>, Chowdhury, M., Pang, W., and <u>Dey, K.</u>, "Identification of Causal Factors of Bridge Failure Through Fault-Tree Analysis," *Proceedings of 2012 Transportation Research Board Annual Meeting*, Washington. D.C., (2012).
- Anjuman, T., Fries, R., and Chowdhury, M., "Asset Management of Intelligent Transportation Systems: Methodology for Selecting the Optimal Platform for Your Agency," *Proceedings of 2012 Transportation Research Board Annual Meeting*, Washington. D.C., (2012).
- <u>He, Y.</u>, Chowdhury, M., Khan, T., and <u>Zhou, Y.</u>, "Car following models Review and future potentials," *Proceedings of the 18th ITS World Congress*, Orlando, FL, (2011).

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- Anjuman, T., Fries, R., and Chowdhury, M., "Requirements for Asset Management of Intelligent Transportation Systems," *Proceedings of the 18th ITS World Congress*, Orlando, FL, (2011).
- <u>Davis-Mcdaniel, C.,</u> Chowdhury, M., and Pang, W., "Identification of Causal Factors of Bridge Failure through Fault-Tree Analysis and Intelligent Sensor Solutions," *Proceedings of the 18th ITS World Congress*, Orlando, FL, (2011).
- <u>He, Y.</u>, Chowdhury, M., Pisu, P., and <u>Kang, X.</u>, "Vehicle-Infrastructure Integration-Enabled Plug-in Hybrid Electric Vehicles for Optimizing Energy Consumption," *Proceedings of the 2011 Transportation Research Board Annual Meeting*, Washington, D.C., (January 2011).
- <u>Tupper, L., Chowdhury, M., Klotz, L., and Fries, R., "Greener Roads: Comparing Intelligent Transportation Systems to Construction-Phase Options to Reduce Emissions and Fuel Use," Proceedings of the 2011 Transportation Research Board Annual Meeting, Washington, D.C., (January 2011).</u>
- Xie, Y., Chowdhury, M., <u>Bhavsar</u>, P., and <u>Zhou</u>, Y., "An Integrated Tool for Modeling the Impact of Alternative Fueled Vehicles on Traffic Emissions: A Case Study of Greenville, South Carolina," *Proceedings of the 2011 Transportation Research Board Annual Meeting*, Washington, D.C., (January 2011).
- Fries, R., Chowdhury, M., and Gahrooei, M., "Maintaining Privacy While Advancing Intelligent Transportation Systems Applications," *Proceedings of the 2011 Transportation Research Board Annual Meeting*, Washington, D.C., (January 2011).
- Rios, J., <u>He, Y.,</u> Chowdhury, M., and Pisu, P., "Plug-in Hybrid Electric Vehicle Energy Management Modeling and Study of Its Performance," 2011 Society for Advancement of Hispanics/Chicanos and Native Americans in Science National Conference, (2011).
- Ma, Y., Kang, X., Chowdhury, M., Zhou, Y., and Xie, Y., "A Hybrid Artificial Neural Network Approach for Freeway Travel Time Prediction," 2010 ITS America Annual Meeting, (2010).
- Zhou, Y., Chowdhury, M., Wang, K. C., and <u>Fries, R.</u>, "Field Study of Quality Requirements of On-line Traffic Surveillance over Wireless Network," *Proceedings of 2010 Trans*portation *Research Board Annual Meeting*, Washington. D.C., (2010).
- <u>Fries, R.</u>, Dunning, A., and Chowdhury, M., "Impact of On-Street Parking in the Core of a University Campus," *Proceedings of the 2010 Transportation Research Board Annual Meeting*, Washington, D.C., (2010).
- Zhou, Y., Fries, R., and Chowdhury, M., "Traffic Route Diversion for Incident Management: Benefit to Cost Analysis," *Proceedings of ITS America's 2009 Annual Meeting and Exposition*, National Harbor, MD, (2009).
- Zhou, Y., Chowdhury, M., and Wang, K.C., "Field Performance Evaluation of Adhoc Wireless Communication for Traffic Management Allocations," *Proceedings of ITS America's 2009 Annual Meeting and Exposition*, National Harbor, MD, (2009).

- Sturm, J., Chowdhury, M., Dunning, A. and Ogle, J., "Analysis of Cost Estimation Disclosure in Environmental Impact Statements for Surface Transportation Projects," *Proceedings of the 2009 Transportation Research Board Annual Meeting*, Washington, D.C., (2009).
- Zhou, Y., Chowdhury, M., Wang, K.C., and Ma, Y., "Wireless Traffic Sensor Network Performance due to Environmental Disturbances and Relay Network Topology: Simulation Analysis," *Proceedings of the 2009 Transportation Research Board Annual Meeting*, Washington, D.C., (2009).
- <u>Fries, R.</u>, Dunning, A., and Chowdhury, M., "Traveler's Value of Real-Time Transit Information," *Proceedings of the 2009 Transportation Research Board Annual Meeting*, Washington, D.C., (2009).
- Bagaria, D., Wang, K., and Chowdhury, M., "Topology-aware Transmission Scheduling for Highway Wireless Sensor Networks," *Proceedings of IEEE International Workshop on Performance and Management of Wireless and Mobile Networks (P2MNET)*, Switzerland, (2009).
- Ma, Y., Chowdhury, M., Zhou, Y., and Fries, R., "Accelerated Incident Detection Using Vehicle Kinetics and Support Vector Machine (SVM) In Cooperation With Infrastructure Agents," *Proceedings of the 15th World Congress on Intelligent Transport Systems*, (2008).
- Ma, Y., Chowdhury, M., Fries, R., and Ozbay, K., "Harnessing the Power of Microscopic Simulation to Evaluate Freeway Service Patrols," *Proceedings of the 2007 Transportation Research Board Annual Meeting*, Washington, D.C., (2007).
- Ma, Y., Fries, R., Chowdhury, M., and <u>Inamdar, I.</u>, "Evaluation of Integrated Application of Intelligent Transportation Systems (ITS) Technologies Using Stochastic Incident Generation and Resolution Simulation," *Proceedings of 15th World Congress on Intelligent Transport Systems*, (November 2008).
- Fries, R., Dunning, A., and Chowdhury, M., "Path to ITS Architecture for a Rural University Campus," *Proceedings of the 15th Intelligent Transportation Systems (ITS) World Congress*, NY, (January 2008).
- Hamlin, C., Fries, R., Chowdhury, M., Ma, Y., and Ozbay, K., "Incident 'Quick Clearance' Legislation: Will it Effectively Reduce Congestion?" *Proceedings of the 2007 Transportation Research Board Annual Meeting*, Washington, D.C., (2007).
- Campbell, F., Ogle, J., Sarasua, W., Rhoades, J., and Chowdhury, M., "Evaluation of Methods for Determining Horizontal Road Design Data Using an Instrumented Vehicle Equipped with Satellite Differentially Corrected GPS," *Proceedings of the 2007 Transportation Research Board Annual Meeting*, Washington, D.C., (2007).
- Fries, R., Chowdhury, M., and Trummel, H., "Legal Implications of Intelligent Transportation System Projects," *Proceedings of the 2007 Transportation Research Board Annual Meeting*, Washington, D.C., (2007).
- Sarasua, W., Malisetty, P., and Chowdhury, M., "Optimal Parking Reallocation for Special Events A Geographic Information Systems Analysis," *Proceedings of the 2006 Transportation Research Board Annual Meeting*, Washington, D.C., (2006).

- Wang, K., Chowdhury, M., <u>Fries, R.</u>, <u>Atluri, M.</u>, and <u>Kanhere, N.</u>, "Real-time Traffic Monitoring and Automated Response with Wireless Sensor Networks," *Proceedings of the 2005 ITS World Congress*, San Francisco, CA, (2005).
- Chowdhury, M., Warren, D., and Bissell, H., "Evaluation of Criteria for Setting Advisory Speeds on Curves," *Proceedings of the 1998 Transportation Research Board Annual Meeting*, Washington, D.C., (1998).
- Chowdhury, M., Pol, J., Franklin, C., and Robinson, J., "National Intelligent Transportation System Architecture Tailoring—An Object Oriented Approach," *Proceedings of the 1998 American Society of Civil Engineers Annual Convention and Exhibition*, Boston, MA, (1998).

Trade Journal Publications

- <u>Lantz, K</u>, Chowdhury, M.and Klotz, L, "Using Inquiry to Expose Undergraduates to ITS", *Intelligent Transportation Systems Magazine*, IEEE, Vol. 6, Issue 4, pp 80-83, (2014).
- Khan, S., and Chowdhury, M., "ITS for One of the Most Congested Cities in the Developing World Dhaka Bangladesh: Challenges and Potentials", *Intelligent Transportation Systems Magazine*, IEEE, Vol. 6, Issue 2, pp 80-83, April 22, (2014).
- Sarasua, W., Eckenrode, R., Mattox, J., Ogle, J., and Chowdhury, M., "Attack of the Drones," *Roads and Bridges*, (2007).
- Chowdhury, M., Pol, J., and Franklin, C., "An Object-Oriented Allocation for Tailoring the National ITS Architecture," *Traffic Technology International*, reviewed by the editorial board, (1998).
- Chowdhury, M., Warren, D., and Bissell, H., "Analysis of Advisory Speed Setting Criteria," *Public Roads*, Vol. 55, No. 3, 65-71, reviewed by U.S. DOT, (1991).

Conference Proceedings

- Rahman, M., and Chowdhury, M. "A New Generation Car-following Model for Today's Traffic and Drivers," In 2nd Transportation and Development Institute (T&DI) Congress-ASCE, Florida, (June 2014).
- He, Y., Chowdhury, M., Khan, T., Zhou, Y. and Rahman, M., "Analysis of Car-following Models," In 2nd Transportation and Development Institute (T&DI) Congress-ASCE, Florida, (June 2014).
- <u>Dey, K.,</u> Chowdhury, M., Pang, W., Putman, B., and Chen, L., "Transportation Infrastructure Damage Costs Due to Overweight Trucks and Corresponding Cost Recovery," In 2nd Transportation and Development Institute (T&DI) Congress-ASCE, Florida, (June 2014).
- <u>Dey, K.,</u> Chowdhury, M., Wiecek, M., and Dunning, A., "A Tradeoff Analysis for Different Damage Fee Offsetting Overweight Truck Damage Costs," In 2nd *Transportation and Development Institute (T&DI) Congress-ASCE*, Florida, (June 2014).
- Dunning, A., <u>Dey, K.</u>, and Chowdhury, M., "Review of Roadway Deterioration and Fees Charged to Recover Overweight Truck Impacts," In 2nd Transportation and Development Institute (T&DI) Congress-ASCE, Florida, (June 2014).

- Zhou, Y., Chowdhury, M., and Wang, K.C., "A Synthesis of Wireless Communication Alternatives for Traffic Control and Management Applications," *Proceedings of 2009 Technical Conference and Exhibit*, Institute of Transportation Engineers, Phoenix, AZ, (2009).
- Chowdhury, M., Wang, K., Fries, R., Ma, Y., and Bagaria, D., "A Wireless Sensor Network for Transportation Safety and Security", *Proceedings of the 2007 Society of Photo-Optical Instrumentation Engineers (SPIE) Defense and Security Conference*, Orlando, FL, (2007).
- Chowdhury, M., and <u>Fries, R.</u>, "Development of a Regional Security ITS Architecture," *Proceedings of the 2005 SPIE Defense and Security Conference*, Orlando, FL, (2005).
- Chowdhury, M., Banerjee, P., Nehmetallah, G., and <u>Das, A.</u>, "Development of Reliable Transmission-Based Laser Sensor System," *Proceedings of the 2004 International Society of Optical Engineering Annual Meeting*, Denver, CO, (2004).
- Tang, A., Chowdhury, M., and Pol, J., "Northern Virginia's Institutional Framework Path to Architecture," *Proceedings of the 1999 Intelligent Transportation Systems World Congress*, Toronto, Canada, (1999).
- Pol, J., Chowdhury, M., and Malek, S., "Resource Sharing Implications for an ITS Physical Architecture," *Proceedings of the 1999 ITE Annual Meeting*, Las Vegas, NV, (1999).
- Chowdhury, M., Pol, J., and Franklin, C., "Systematic Development of a Statewide ITS Framework," *Proceedings of the* 1999 *Intelligent Transportation Systems of America Annual Meeting*, Washington, D.C., (1999).
- Malek, S., Moskaluk, M., and Chowdhury, M., "ITS for Local Jurisdictions: A Stepwise Approach," *Proceedings of the 1998 ITE Annual Meeting*, Toronto, Canada, (1998).
- Chowdhury, M., Malek S., and Garber, N., "Multi-objective Resource Allocation-Why, When and How," *Proceedings of the 1998 ITE Annual Meeting*, Toronto, Canada, (1998).
- Chowdhury, M., "Interactive Multi-objective Decision Making Approach for Evaluating Intelligent Transportation Systems (ITS) Programs," *Proceedings of the 1996 Annual World Congress on Intelligent Transport Systems*, Orlando, FL, (1996).
- Chowdhury, M., and Garber, N., "An Interactive Multi-objective Resource Allocation Methodology for Evaluating Safety Projects," *Proceedings of the 1996 Annual World Congress on Intelligent Transport Systems*, Orlando, FL, (1996).
- Chowdhury, M., "Toward an Optimal Incident Management Program Using a Multiobjective Decision Making Algorithms," *Proceedings of the 1996 ITE International Conference*, CA, (1996).

Selected Presentations

- Chowdhury, M., "Deterioration of Pavements and Bridges due to Large Trucks," 94th Annual Meeting of the Transportation Research Board, Invited by American State Highway and Transportation Officials, (2015).
- He, Y., Rios, J., Chowdhury, M., Pisu, P., and Bhavsar, P., "Forward Power-Train Energy Management Modeling for Assessing Benefits of Integrating Predictive Traffic Data into Plug-in Hybrid Electric Vehicles," 2012 Transportation Research Board Annual Meeting, Washington. D.C., (2012).

- Chowdhury, M., "Wireless Communications Applications in Surface Transportation," *Fourth Indo-American Frontiers of Engineering Symposium, National Academy of Engineering*, Bethesda, MD, (March 2012).
- <u>Tupper, L.</u> and Chowdhury, M., "Clemson's Integrated Intelligent Transportation Platform," 18th World Congress on Intelligent Transportation Systems, Special Contest Winners Session and Best of ITS Awards, Orlando, FL,(October 2011).
- Chowdhury, M., "Teaching Sustainable Community Development Strategies and Their Effectiveness through a Case Study based Approach," International Training Workshop on Science Education for Sustainable Development, United Nations Educational, Scientific and Cultural Organization (UNESCO), Ministry of Education, Bangladesh, and COMSATS, Dhaka, Bangladesh, (June 2011).
- Chowdhury, M., "WiMax Network," *University of Virginia Civil Engineering Seminar*, (August 2010).
- Chowdhury, M. (Invited Speaker), "Intelligent Transportation Systems Research," *Nile University Research Day*, Video Presentation, (June 2010).
- Chowdhury, M., "Vehicle-Infrastructure Integration System," *Clemson University International Center for Automotive Research*, (March 2009).
- Dunning, A., <u>Fries, R.</u>, Chowdhury, M., Robinson, G., "Finding Local Expertise When Developing An ITS Architecture for a Rural University Campus." *Proceedings of the American Collegiate Schools of Planning 50th Anniversary Conference*, Crystal City, VA, (October 2009).
- Chowdhury, M. and Zhou, Y., "Driver Compliance with Advisory Speed and Its Operational Implications," 2008 Southern District Institute of Transportation Engineers Annual Meeting, Charleston, SC, (2008).
- Chowdhury, M. and <u>Tan, P.</u>, "A Case Study on Investment Analysis using a Constraint Multi-objective Method," Presented at the 2005 Transportation Research Board Annual Meeting, Washington, D.C., (January 2005).
- Chowdhury, M., Derov, N., and <u>Tan, P.</u>, "Prohibiting Direct Left-Turns from Driveways and the Resulting U-turn Movements," 2004 ITE Annual Meeting, Orlando, FL, (August 2004).
- Chowdhury, M., Derov, N., and <u>Tan, P.</u>, "Prohibiting Direct Left-Turns from Driveways and the Resulting U-turn Movements," 57th Annual Ohio Transportation Engineering Conference, Columbus, OH, (2003).
- Hovey, P. and Chowdhury, M., "Empirical Bayes Estimation of Crash Reduction Factors," 11th Spring Research Conference on Statistics in Industry and Technology, (May 2004).
- Tang, A., Chowdhury, M., and Pol, J., "A Systems Approach in Developing the Northern Virginia ITS Framework," *Intelligent Transportation Systems for Virginia Annual Meeting*, (1999).
- Haimes, Y., Li, D., Garber, N., Kuzminski, P., and Chowdhury, M., "Improvement of Highway Safety through Optimal Vehicle Design: Fault-Tree and Multi-objective Analysis," *National Meeting of Operations Research Society of America/The Institute of Management Science*, (October 1994).

Chowdhury, M., Warren, D., and Bissell, H., "Advisory Speed - Good or Bad Advice?" 1992 ITE Annual Meeting, Washington, D.C., (1992).

SPONSORED RESEARCH

- US Ignite: Track 1: Enabling Connected Vehicle Applications through Advanced Network Technology, *Co-Principal Investigator*, National Science Foundation (NSF), (2015-2017).
- Risk analysis of autonomous vehicles in mixed traffic streams, *Principal Investigator*, Rowan University, (2015-2016).
- Professional Services Contract Manager On-Demand Training and Best Practices, *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2014-2016).
- Operational and Economic Analysis of Access Management, *Principal Investigator*, South Carolina Department of Transportation, (2015-2016).
- Study of Cost Effective Strategies for Estimating Statewide AADT, *Principal Investigator*, South Carolina Department of Transportation, (2015-2016).
- US Department of Education, *Co-Principal Investigator*, Graduate Assistance in Areas of National Needs, Sustainable and Resilient Infrastructure, (2013-2017).
- South Carolina Department Asset Collection, *Co-Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2015-2016)
- Support for the Development and Implementation of an Access Management Program through Research and Analysis of Collision Data, *Co-Principal Investigator*, South Carolina Department of Transportation, (2013-2015)
- Cross-Slope Verification using Mobile Scanning on SCDOT Interstates, *Co-Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2014-2017).
- Incident Command and Control System, *Co-Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2012-2014).
- Applying Successfully Proven Measures in Roadway Safety to Reduce Harmful Collisions in South Carolina, *Co-Principal Investigator*, South Carolina Department of Transportation, (2013-2015)
- Wireless Power Transfer and Charging of Plug-in Electric Vehicles, *Co-Principal Investigator*, US Department of Energy, (2012-2015).
- Study of the rate of Pavement Deterioration of Bridges and Pavement as Affected by Trucks, *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2011-2013).
- Professional Services Contract Manager Development and Certification Strategy Contract Manager, *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2011-2012).
- Incident Command and Control System, *Co-Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2012-2014).
- Vehicle-Infrastructure Enabled Plug-in Hybrid Electric Vehicles for Energy Management, *Principal Investigator*, National Science Foundation (NSF), (2009-2012).

- Science Master's Program: Sustainable and Resilient Infrastructure; *Co-Principal Investigator*; National Science Foundation (NSF), (2010-2013).
- Tort Liability due to Roadway Engineering Issues, *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2009-2011).
- Rate of Deterioration of Bridges and Pavement as Affected by Trucks, *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2011-2013).
- Environmental, Operational and Economic Impacts of Alternative Transportation Fuel, *Principal Investigator*, South Carolina State University, (2009-2010).
- Evaluation of Communication Alternatives for Intelligent Transportation Systems; *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2008-2010).
- Support for the Elimination of Roadside Hazards in an Acceptable Clear Zone through the Use of Collision Data, *Co-Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2008-2010).
- Development of a Prototype Vehicle-Infrastructure Integration (VII) System for Real-Time Traffic Management and Control, *Principal Investigator*, National Transportation Center, Baltimore, Maryland, (2008-2009).
- Benefit Cost Analysis of Accelerated Incident Clearance, *Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2005-2007).
- A Cased-Based Reasoning System for Developing Incident Management and Evacuation Strategies in Rural Areas, *Principal Investigator*, Southern Rural Transportation Center, (2005).
- Integrated Simulation Platform for Evaluating Wireless Traffic Sensor Network for Traffic Safety and Security Response, *Principal Investigator*, Southern Rural Transportation Center, (2006-2007).
- Better Management for Speed Control in Work Zones, *Co-Principal Investigator*, South Carolina Department of Transportation (SCDOT), (2005-2006).
- Synthesis of Highway Practice 36-03-New Technologies for Improving Safety Data," *Co-Principal Investigator*, Transportation Research Board, (2005 2006).
- Clemson Travel Pattern Study, *Co-Principal Investigator*, Clemson University Parking Services, (2006 2010).
- Development of Crash Reduction Factors, *Principal Investigator*, Ohio Department of Transportation (ODOT), (2005). This is a follow-up project from Ohio DOT that originated at the University of Dayton.
- Development of a Reliable Transmission-Based Laser Sensor Systems (For ITS Applications) Using Fault-Tree Analysis, *Principal Investigator*, Ohio Board of Regents, (2003-2004).
- Review of Safety Effectiveness of Highway Design Features, *Principal Investigator*, University of Dayton, (2003-2004).
- Development of Crash Reduction Factors Using Empirical Bayes Methodology, *Principal Investigator*, Ohio Department of Transportation (ODOT), (2002-2004).
- An Interactive Multiobjective Methodology for Transportation Investments, *Principal Investigator*, US Department of Transportation and Mid-West Regional University Transportation Center, (2001-2002).

- Evaluating the Effects of Prohibiting Left Turns and the Resulting U-turn Movement, *Principal Investigator*, Ohio Department of Transportation (ODOT), (2001-2002).
- A Methodology for Predicting Traffic Conditions for Traveler Information Systems, *Principal Investigator*, Ohio Board of Regents, (2001).
- **GRADUATE STUDENT RESEARCH FELLOWSHIPS** (served or currently serving as the faculty advisor on these graduate student research fellowship projects)
- Melissa Gende (National Science Foundation (NSF) Ph.D. Graduate Research Fellowship), "Risk Analysis of Autonomous Vehicles," (2014-2017).
- Joshua Mitchell, (U.S. Department of Transportation Dwight D. Eisenhower Master's Fellowship), "Operational and Economic Impacts of Access Management," (2014-2015).
- Md. Mizanur Rahman (U.S. Department of Transportation Dwight D. Eisenhower Doctoral Fellowship), "Mathematical Modeling of Complex Dynamical Systems to Represent And Analyze Driver Behaviors," (2013-2014).
- Md. Mizanur Rahman (U.S. Department of Transportation Dwight D. Eisenhower Master's Fellowship), "Mathematical Representation of Driver Behavior for Evaluating Impacts of Roadway Transportation Systems," (2012-2013).
- Yiming He (U.S. Department of Transportation Dwight D. Eisenhower Doctoral Fellowship), "Utilization of Vehicle Infrastructure Integration in Electric Vehicles (EVs) and Plug-In Hybrid Electric Vehicles (PHEVs)," (2012-2013).
- Jennifer Johnson (National Science Foundation (NSF) Ph.D. Graduate Research Fellowship), "Contributing to a Sustainable Community through Intelligent Mobility Technologies," (2011-2015).
- Jennifer Johnson (Tau Beta Pi Fellowship), (2011-2012).
- Jennifer Johnson (U.S. Department of Transportation Dwight D. Eisenhower Doctoral Fellowship), (2011-2012); declined the award as she accepted the NSF fellowship.
- Lee Tupper (U.S. Department of Transportation Dwight D. Eisenhower Doctoral Fellowship), "Tort Liability due to Roadway Engineering Issues," (2009-2012).
- Yiming He (U.S. Department of Transportation Dwight D. Eisenhower Doctoral Fellowship), "Utilization of Vehicle Infrastructure Integration in Plug-In Hybrid Electric Vehicles for Energy Management," (2011-2012).
- Rodrick Tucker (National Science Foundation (NSF) Science Master's Program (SMP) Fellowship), "Integration of Structural Health Monitoring with ITS," (2011-2012).
- Caitlyn Davis-McDaniel (National Science Foundation (NSF) Science Master's Program (SMP) Fellowship), "Fault-Tree Model for Bridge Collapse Risk Analysis," (2010-2011).
- Yan Zhou (U.S. Department of Transportation Dwight D. Eisenhower Doctoral Fellowship), "Evaluation of Communication Alternatives for Intelligent Transportations," (2008-2010).
- Katrina Bartman (U.S. Department of Transportation Dwight D. Eisenhower Masters Fellowship), "Transit Study for a College Campus," (2009-2010).
- Joseph Sturm (U.S. Department of Transportation Dwight D. Eisenhower Masters Fellowship), "Cost-Analysis for Transportation Projects," (2006-2007).

GRADUATE STUDENT ADVISING

Graduate Advising at Clemson University

Post-Doctoral Fellows:

- Dey, K., Connected Vehicle Technology, Clemson University (May 2014 present).
- Bhavsar, P., Connected Vehicle Technology, Clemson University (August 2013 August 2014).
- Fries, R., Co-advised with Dr. Anne Dunning of the Planning and Landscape Architecture Department, Clemson University (June 2007 August 2008).

Dissertation Advisor to Ph.D. Students:

Doctoral Graduates

- Dey, K. (Ph.D.), "Minimizing Bridge and Pavement Deterioration from Large Trucks: A Policy Analysis for Damage Recovery," (Graduated in May 2014)
- Bhavsar, P. (Ph.D.), "Development of an Environmental and Operational Impact Assessment Framework for Connected Vehicle Technology Supported Alternative Fuel Vehicles," (Graduated in December 2013)
- Li, Z., (Ph.D.), "Development and Evaluation of an Intelligent Transportation Systems-Based Architecture for Electric Vehicles," (Graduated in December 2013)
- Tupper, L. (Ph.D.), "Causal Relationships between Damage Claims and Lawsuits to Roadway Engineering Safety Issues," (Graduated in December 2013).
- He, Y. (Ph.D.), "Vehicle-Infrastructure Integration Enabled Plug-In Hybrid Electric Vehicles for Energy Management," (Graduated in May 2013).
- Duanmu, J. (Ph.D.), "Simulation and Mathematical Modeling to Support Community-wide Evacuation Decisions for Multiple Population Groups," (Graduated in August 2010). Co-chair with Dr. Kevin Taaffe of the Industrial Engineering Department.
- Zhou, Y. (Ph.D.), "Modeling of On-line Traffic Control and Management Network for Operational and Communication Performance Evaluation," (Graduated in May 2010).
- Bennet, B. (Ph.D.), "Risk Analysis of Military Vehicle Operations under Combat and Non-Combat Environments," (Graduated in May 2009).
- Ma, Y. (Ph.D.), "A Real-Time Traffic Condition Assessment and Prediction Framework using Vehicle-Infrastructure Integration (VII) With Computational Intelligence," (Graduated in May 2008).
- Fries, R. (Ph.D.), "Evaluating the Impacts of Accelerated Incident Clearance Tools and Strategies by Harnessing the Power of Microscopic Traffic Simulation," (Graduated in May 2007).

Current Dissertation Advising

• Rahman, M. (Ph.D.), "Data Science for Sustainable Transportation System," (Expected graduation date is May 2016).

- Lantz, K. (Ph.D.), Application and Evaluation of Big Data Analytics for Transit System Improvements in Developing Counties (expected graduation date is August 2016).
- Khan, S. (Ph.D.), "Connected Vehicle Reference Architecture Evaluation," (Expected graduation date is December 2016).

M.S. Thesis Advisor for Students at Clemson University:

MS Thesis Graduates

- Khan, S. (M.S.), "Real-time Traffic Condition Assessment with Connected Vehicles," (Graduated in May 2015).
- Rahman, M. (M.S.), "Application of Parameter Estimation and Calibration Method for Car-following Models," (Graduated in August 2013).
- Johnson, J. (M.S.), "Contributing to a Sustainable Community through Intelligent Mobility Technologies," (Graduated in May 2012).
- McDaniel, C. (M.S.), "Bridge Collapse Risk Analysis through Fault-Tree Modeling." Co-chair with Dr. Weichiang Pang of the Civil Engineering Department (Graduated in December 2011).
- Bartman, K. (M.S.), "Clemson Area Public Transit Study" (Graduated in August 2010). Co-chair with Dr. Jennifer Ogle of the Civil Engineering Department.
- Kang, X. (M.S.), "Vehicle-Infrastructure Integration (VII) Enabled Plug-in Hybrid Electric Vehicles (PHEV) for Traffic and Energy Management." (Graduated in December 2009).
- Anjuman, T. (M.S.), "An Asset Management System for Intelligent Transportation Systems," (Graduated in December 2009).
- Sturm, J. (M.S.), "Cost-Analysis for Transportation Projects," (Graduated in December 2007).
- Hamlin, A. (M.S.), "Quick Clearance Legislation: Will it Effectively Reduce Congestion?" (Graduated in August 2007)
- Stephen, L. (M.S.), "Evaluation of Traffic Evacuation Strategies during Emergencies," (Graduated in May 2007).
- Bhavsar, P. (M.S.), "A Decision Support System for Predicting Traffic Diversion Impacts across Transportation Networks using Support Vector Regression," (Graduated in August 2006).
- Inamdar, I. (M.S.), "Real-time Simulation for Incident management," (Graduated in May 2006).
- Satti, K. (M.S.), "Route Diversion Strategy using Traffic Simulation and Multiobjective Analysis," (Graduated in August 2005).
- Racha, S. (M.S.) "Capacity Analysis in Work zones," (Graduated in August 2005).
- Atluri, M. (M.S.) "Design and Evaluation of an Optical Sensor System for Intelligent Transportation System Application," (Graduated in August 2005).

Current MS Thesis Advising

- Keehan, M. (MS), "Traffic Data Collection Strategy with Connected Vehicle Technology," (Expected graduation date is December 2016).
- An, Y. (MS), "An Efficient Data Exchange Framework to Sending and Receiving Data for Dynamic Transit Operations Applications in Connected Vehicle Environment," (Expected graduation date is December 2015).
- Islam, S. (MS), "Traffic Safety Impacts of Connected Vehicles in Mixed Traffic," (Expected graduation date is December 2015).
- Mitchell, J. (MS), "Operational Analysis of Intelligent Transportation System-Based Access Control on Urban Arterials: A Case Study," (Expected graduation date is December 2015).

Graduate Advisor for Students at the University of Dayton

- Das, A. (M.S.) "Fault-Tree Based Risk Analysis for a Laser Sensor System for Intelligent Transportation System Applications," University of Dayton, (2006). Continued advising Mr. Das from Clemson University.
- Khobrekar, V. (M.S.) "Analysis of Safety Effectiveness for Flattening Slopes/Remove Guardrails and Highway Lighting Using Empirical Bayes Methodology," University of Dayton, (2004).
- Basetty, S. (M.S.) "Development of Crash Reduction Factors for Installation of Median Barriers and Removal/Relocation of Fixed Objects," University of Dayton, (2004).
- Goodhue, P. (M.S.) "Evaluation of a Transmission-Based Laser Traffic Sensor System," University of Dayton, (2004).
- William, S. (M.S.) "A Multi-attribute Utility Theory for Transportation Investment Analysis," University of Dayton, (2003).
- Tan, P. (M.S.) "A Multi-objective Methodology for Transportation Investments," University of Dayton, (2003).
- Sack, L. (M.S.) "Speed Modeling for Horizontal Curves," University of Dayton, (2002).
- Habina, S. (M.S.) "A Comparative Analysis of Video Detectors and Loop Detectors for Traffic Control Systems," University of Dayton, (2002).
- Stickney, J. (M.S.) "Evaluating the Effects of Alternative Left-Turn Treatments," (Project), University of Dayton, (2002).
- Derov, N. (M.S.) "Evaluating the Effects of Direct Left Turns and the Resulting U-Turn Movements," University of Dayton, (2002).

UNIVERSITY SERVICES

Committees

• Thomas Green Clemson Award Committee (Clemson University), (2013 - present)

- Post-Tenure Review Committee, Department of Industrial Engineering (Clemson University, (2014 Present)
- Compensation Review Committee (Clemson University), (2012 Present)
- Department of Civil Engineering (Clemson University): Chair, Scholarship and Awards Committee, (2011 Present).
- Glenn Endowment Committee (Clemson University), (2012 present)
- College of Engineering and Science (Clemson University): Awards Committee, (2011 Present).
- College of Engineering and Science (Clemson University): 2010 Teaching Awards Committee.
- Department of Civil Engineering (Clemson University): Member, Tenure and Promotion Committee (August 2008 Present).
- Department of Civil Engineering (Clemson University): Member, ABET Committee, (2008 present).
- Department of Civil Engineering (Clemson University): Member, Graduate Committee, (2004 to Present).
- Department of Civil Engineering (University of Dayton): Member, ABET Committee, (2003-2004).
- Department of Civil Engineering (University of Dayton): Member, Curriculum Committee, (2002-2004).
- School of Engineering (University of Dayton): Member, Design and Manufacturing Clinic, (2002-2004).

TEACHING

Teaching Accomplishments

Constantly received one of the highest teaching effectiveness ratings in the undergraduate and graduate course evaluations in the Civil Engineering Department at Clemson University. Received the *Murray Stokely Award for Excellence in Teaching* in 2009 from the College of Engineering and Science at Clemson University "in recognition of outstanding contributions to engineering education." Also received one of the highest teaching effectiveness ratings in the Civil Engineering department for undergraduate and graduate courses taught at the University of Dayton.

Courses Taught

Undergraduate:

Clemson University

CE 3110: Transportation Engineering

CE 4100: Traffic Engineering

CE 4120: Transportation Planning

University of Dayton

CEE 101: Introductions to Engineering Design

CEE 402: Transportation Engineering

CEE 408: Sophomore Seminars

Graduate:

Clemson University

CE 6100: Traffic Engineering

CE 6120: Transportation Planning

CE 8140: Intelligent Transportation Systems

CE 8530: Practical Applications in Traffic Engineering

CE 8930: Connected Vehicle Technology

CE 8930: Safety and Security in Intelligent Transportation Systems

Nile University, Egypt

ITS 604: Intelligent Transportation Systems Applications, On-line Course

University of Dayton

CEE 552: Intelligent Transportation Systems

CEE 595: Transportation Systems Management

New Course Development

Undergraduate:

Clemson University

CE 2990/3990/4990: Creative Inquiry: Design of Plug-In Electric Vehicles Communication and Control Architecture for Vehicle-Infrastructure Integration (VII)

CE 3110: Transportation Engineering

CE 4120: Transportation Planning

University of Dayton

CEE 101: Introduction to Engineering Design

CEE 408: Sophomore Seminars

Graduate:

Clemson University

CE 6120: Transportation Planning

CE 8930: Safety and Security in Intelligent Transportation Systems

CE 8930: Connected Vehicle Technology

Nile University, Egypt

ITS 604: Applications in ITS; On-line Course

University of Dayton

CE 595: Transportation Systems Management

CE 814: Intelligent Transportation Systems

MENTORING

- Mentor: Ming Yao (Visiting Scholar), Associate Professor, School of Automotive and Traffic Engineering, Jiangsu University, Jiangsu, China (2014 2015).
- Department Designated Faculty Mentor: Yongxi Huang, Assistant Professor, Civil Engineering, (September 2011 Present)
- Department Designated Faculty Mentor: Amir Poursaee, Assistant Professor, Civil Engineering, (January 2011 Present)
- Department Designated Faculty Mentor: Leidy Klotz, Assistant Professor, Civil Engineering, (2008 2011)
- Summer Research Mentor, South Carolina Governor's School for Science and Mathematics students, (2006, 2007, 2009 and 2010)