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EDUCATION	<b>Ph.D., Civil Engineering</b>	University of Illinois at Urbana Champaign	June, 2015
	• Thesis Title: <i>Effectiveness of Adaptive Flight Planning in Post-Bird Strike Total Loss of Thrust</i>		
	<b>M.S., Statistics</b>	University of Illinois at Urbana Champaign	May, 2011
	<b>M.S., Civil Engineering</b>	Boğaziçi University	June, 2006
	• Thesis Title: <i>Arterial Signal Coordination and Optimization – A Case Study in Istanbul</i>		
	<b>B.S., Civil Engineering</b>	Boğaziçi University (ABET-accredited program)	July, 2004
	• High Honors Degree		

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EXTRAMURALLY FUNDED RESEARCH	<b>Doctoral Thesis Research</b>		2011 - Present
	• Industrial Sponsors: <i>European Pilot Selection and Training (Utrecht, Netherlands)</i> <i>International Flight Training Center, Aero (Istanbul, Turkey)</i>		
	• Published in the topic of statistical modelling of the growing threat of bird strikes for commercial jets and their effects on contemporary twin-engine aircraft with reduced engine redundancy		
	• Designing an adaptive flight planner for powerless emergency landings due to the increasing bird strike hazard		
	<b>Statistical Analysis of Flagger Effects in Work Zone Safety</b>		2010 - 2012
	• Funded by: <i>Illinois Department of Transportation (IDOT)</i>		
	• Conducted field data collection and statistical analysis of the effects of flaggers on work zone safety and the likelihood of rear-end collisions		
	<b>WorkZoneQ</b>		2010 - 2012
	• Funded by: <i>Illinois Department of Transportation (IDOT)</i>		
	• Programmed a software application to empirically estimate vehicle queue length, vehicle delays and users' costs in Interstate work zones one real-time basis		
<b>Empirical Modelling of Queue and Users' Costs in Interstate Work Zones</b>		2009 - 2010	
• Funded by: <i>Illinois Department of Transportation (IDOT)</i>			
• Developed an empirical methodology for accurate estimation of vehicle queue length, vehicle delays and users' costs in Interstate work zones			
<b>Statistical Analysis of Traffic Flow Characteristics in Intelligent Work Zones</b>		2008 – 2009	
• Funded by: <i>U.S. Department of Transportation (USDOT), Nextrans Center</i>			
• Statistical analysis of the effects of Intelligent Transportation Systems on the traffic flow characteristics and safety of Interstate work zones			
<b>Empirical Estimation of Work Zone Capacity</b>		2008 - 2010	
• Funded by: <i>U.S. Department of Transportation (USDOT), Nextrans Center</i>			
• Proposed alternative empirical methods for estimating work zone capacity and computing queue length and delay in Interstate work zones			

RESEARCH AWARDS	<b>Dissertation Completion Grant</b>	2014
	<ul style="list-style-type: none"> <li>Granted by: <i>Department of Civil Engineering at the University of Illinois at Urbana Champaign</i></li> <li>\$6,000 grant awarded for dissertation research</li> </ul>	
	<b>Daniel B. Fambro Research Paper Award</b>	2014
	<ul style="list-style-type: none"> <li>Granted by: <i>Institute of Transportation Engineers, Midwestern Section</i></li> <li>\$600 awarded to the best graduate research paper in the 11-State Midwest Area</li> </ul>	
	<b>Dissertation Travel Grant</b>	2014
	<ul style="list-style-type: none"> <li>Granted by: <i>Graduate College at the University of Illinois at Urbana Champaign</i></li> <li>\$5,000 awarded to 12 Ph.D. students with outstanding thesis work in the Graduate College</li> </ul>	
	<b>Best Research Paper Award</b>	2014
<ul style="list-style-type: none"> <li>Granted by: <i>Institute of Transportation Engineers, Midwestern Section</i></li> <li>\$1,000 awarded to the best graduate research paper in the state of Illinois</li> </ul>		
<b>Medearis Fellowship</b>	2014	
<ul style="list-style-type: none"> <li>Granted by: <i>Department of Civil Engineering at the University of Illinois at Urbana Champaign</i></li> <li>\$7,000 awarded to one first-year grad student in Civil Engineering</li> </ul>		
<b>Best M.S. Thesis in Transportation</b>	2014	
<ul style="list-style-type: none"> <li>Granted by: <i>Turkish Ministry of Transportation</i></li> <li>\$1,500 awarded to the best M.S. Thesis in Transportation in the country</li> </ul>		
<b>TÜBİTAK Fellowship</b>	2014	
<ul style="list-style-type: none"> <li>Granted by: <i>The Scientific and Technologic Research Council of Turkey</i></li> <li>\$3,000 awarded to outstanding M.S. students in the country</li> </ul>		
TEACHING AWARDS	<b>CEE Alumni Award for Teaching Excellence</b>	2014
	<ul style="list-style-type: none"> <li>Granted by: <i>Department of Civil Engineering at the University of Illinois at Urbana Champaign</i></li> <li>\$10,000 monetary award granted owing to exceptional performance in teaching Applied Statistical Methods</li> </ul>	
	<b>“Outstanding” Rating in the List of Teachers Ranked as Excellent by Students</b>	2012 - 2014
<ul style="list-style-type: none"> <li>Granted by: <i>Center for Innovation in Learning and Teaching</i></li> <li>Rated as “outstanding” four times in a row based on official course evaluations</li> </ul>		
<b>Deanery Special Award for Teaching Excellence</b>	2006	
<ul style="list-style-type: none"> <li>Granted by: <i>Faculty of Engineering at Boğaziçi University</i></li> <li>Awarded to one outstanding teaching assistant in the Faculty of Engineering</li> </ul>		
EXTRA- CURRICULAR AWARDS	<b>First Place Award, “Illinois International” Photo Contest</b>	2014
	<ul style="list-style-type: none"> <li>Awarded by: <i>Study Abroad Office at the University of Illinois, Urbana Champaign</i></li> </ul>	
	<b>First Place Award, “European Citizens” Photo Contest</b>	2014
<ul style="list-style-type: none"> <li>Awarded by: <i>European Union Center at the University of Illinois, Urbana Champaign</i></li> </ul>		
<b>Second Place Award, Collegiate Traffic Bowl Competition</b>	2009 & 2010	
<ul style="list-style-type: none"> <li>Awarded by: <i>Institute of Transportation Engineers, Midwestern Section</i></li> </ul>		

<b>TEACHING EXPERIENCE</b>	<b>Syracuse University</b>	
	<ul style="list-style-type: none"> <li>Data Analysis and Decision Making (MBA@ Syracuse, MBC 638) Fall 2015</li> <li>Managerial Statistics (MAS 261) Fall 2015</li> </ul>	
	<b>University of Illinois at Urbana Champaign</b>	
	<ul style="list-style-type: none"> <li>Applied Statistical Methods (ABE 440) Fall 2012 - Spring 2015 <i>Inferential statistics, analysis of variance, fixed &amp; random effects models, linear regression, experimental design, categorical data analysis</i></li> <li>VBA Programming (in CEE 405) Fall 2014</li> <li>Traffic Capacity Analysis (CEE 416) Fall 2011</li> <li>Geometric Design of Roads (CEE 415) Fall 2008</li> </ul>	
	<b>Boğaziçi University (ABET-accredited program)</b>	
	<ul style="list-style-type: none"> <li>Transportation Systems Engineering (CE 461) Fall 2004 - Summer 2006</li> </ul>	
<b>PROFESSIONAL DEVELOPMENT IN TEACHING</b>	<b>Center for Innovation in Learning and Teaching (University of Illinois at Urbana Champaign)</b>	
	Completed Teaching Certificates:	
	<ul style="list-style-type: none"> <li><i>Technology-Enhanced Teaching</i> 2014</li> <li><i>Teaching Scholar</i> 2014</li> <li><i>Graduate Teacher</i> 2013</li> <li><i>Foundations in Teaching</i> 2012</li> </ul>	
	Completed 34 hours of workshops on effective teaching strategies	2011 - 2014
<b>SERVICE</b>	<b>Champaign County Humane Society</b>	
	Voluntary dog-walker for shelter animals	2014 - Present
	<b>University of Illinois at Urbana Champaign</b>	
	Treasurer at the Cosmopolitan Club	2011 - 2013
	Officer at the Institute of Transportation Engineers (ITE) Student Chapter	2010 - 2011
	President of the Institute of Transportation Engineers (ITE) Student Chapter	2009 - 2010
	Vice President of the Turkish Student Association	2009 - 2010
	President of the Turkish Student Association	2008 - 2009
	<b>Boğaziçi University</b>	
	Officer at the Real Adventure Playing Club	2003 - 2006
	AutoCAD Lecturer at the Construction Club	2003 - 2004
	Athlete at the Tae Kwon Do Team	2000 - 2003

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REFEREED  
JOURNAL  
PAPERS

- [1] **Avrenli, K. A.**, and B. J. Dempsey. (2015). A Kinematic Approach to Segmented-Trajectory Generation for the Total Loss of Thrust Emergency. *Aviation*, vol. 19, 3, 139–148.
- [2] **Avrenli, K. A.**, and B. J. Dempsey. (2015). Assessment of the Engines-out Flight Performance of a Commercial Jet. *Journal of Aviation Systems, Operations and Training*, vol. 1, 2, 35–54.
- [3] **Avrenli, K. A.** and B. J. Dempsey. (2015). Is “Green Dot” Always the Optimum Engines-out Glide Speed on the Airbus A320? *Journal of Aviation/Aerospace Education and Research*, vol. 24, 3, 33–63.
- [4] **Avrenli, K. A.**, and B. J. Dempsey. (2014). Statistical Analysis of Aircraft-Bird Strikes Resulting in Engine Failure. *Journal of the Transportation Research Board*, No. 2449, 14–23.
- [5] **Avrenli, K. A.**, R. Benekohal, and H. Ramezani. (2013). Flagger Effects in Reducing the Likelihood of Rear-End Collisions for in-Platoon Vehicles in Work Zones. *Journal of the Transportation Research Board*, No. 2337, 9–16.
- [6] Medina, J, **K. A. Avrenli**, and R. Benekohal. (2013). Field and Software Evaluation of Illuminance from LED Luminaires for Roadway Applications. *Journal of the Transportation Research Board*, No. 2384, 55–64.
- [7] **Avrenli, K. A.**, R. Benekohal, and H. Ramezani. (2012). Four Regime Speed-Flow Relationships for Work Zones with Police Patrol and Automated Speed Enforcement. *Journal of the Transportation Research Board*, No. 2272, 34–43.
- [8] **Avrenli, K. A.**, R. Benekohal, and H. Ramezani. (2011). Traffic Flow Characteristics and Capacity in Police-Enforced and Intelligent Work Zones. *Procedia – Social and Behavioral Sciences*, No: 16, 430–439.

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REFEREED  
CONFERENCE  
PRESENTATIONS

- [9] **Avrenli, K. A.**, and B. J. Dempsey. (2015). *From Yesterday’s Three- and Four-Engine Airliners to Twin-Engine Airlines: Are Bird Strikes More Hazardous for Today’s Twin-Engine Aircraft?* TRB 94<sup>th</sup> Annual Meeting, Washington, DC.
- [10] **Avrenli, K. A.**, R. Benekohal, and H. Ramezani. (2012, January). *Time Gaps in Work Zones Based on Follower-Leader and Under Various Temporary Traffic Control Methods*. TRB 91<sup>st</sup> Annual Meeting, Washington, DC.
- [11] H. Ramezani, R. Benekohal, and **K. A. Avrenli**. (2011, June). *Analysis of Queue Formation and Dissipation in Work Zones*. International Meeting in Symposium on Highway Safety and Capacity, Stockholm, Sweden.
- [12] **Avrenli, K. A.**, R. Benekohal, and H. Ramezani. (2011, January). *Determining Speed-Flow Relationship and Capacity for Freeway Work Zone with no Lane Closure*. TRB 90<sup>th</sup> Annual Meeting, Washington, DC.
- [13] **Avrenli, K. A.**, R. Benekohal, and H. Ramezani. (2011, January). *Investigating Risky Driving Behavior of Vehicles with Short Time Gaps in Single-Lane Work Zones*. TRB 90<sup>th</sup> Annual Meeting, Washington, DC.
- [14] H. Ramezani, R. Benekohal, and **K. A. Avrenli**. (2011, January). *Methodology to Measure Work Zone Capacity Using Field Data*. TRB 90<sup>th</sup> Annual Meeting, Washington, DC.
- [15] H. Ramezani, R. Benekohal, **K. A. Avrenli**. (January, 2011). *Methodology to Analyze Queue Length and Delay in Work Zones*. TRB 90<sup>th</sup> Annual Meeting, Washington, DC.
- [16] H. Ramezani, R. Benekohal, **K. A. Avrenli**. (2010, July). *Statistical Distribution for Inter-Platoon Gaps, Intra-Platoon Headways and Platoon Size Using Field Data from Highway Bottlenecks*. TRB Traffic Flow Theory and Characteristics Conference Annecy, Lyon, France.

- [17] H. Ramezani, R. Benekohal, **K. A. Avrenli**. (2010, July). *Methodology to Estimate Moving Queue Length and Delay in Highway Bottlenecks*. TRB Traffic Flow Theory and Characteristics Conference Annecy, Lyon, France.

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RESEARCH  
REPORTS

- [18] Benekohal, R., H. Ramezani, and **K. A. Avrenli**. (2013, June). "WorkZoneQ User Guide for Two-Lane Freeway Work Zones", Illinois Center for Transportation, Research Report FHWA-ICT-13-019.
- [19] **Avrenli, K. A.**, R. Benekohal, and J. Medina. (2012, October). "LED Roadway Lighting, Volume 2: Field Evaluations and Software Comparisons", Illinois Center for Transportation, Research Report FHWA-ICT-12-013.
- [20] **Avrenli, K. A.**, R. Benekohal, and J. Medina. (2012, October). "LED Roadway Lighting, Volume 1: Background Information", Illinois Center for Transportation, Research Report FHWA-ICT-12-012.
- [21] H. Ramezani, R. Benekohal, **K. A. Avrenli**. (2011, March). "Determining Queue and Congestion in Highway Work Zone Bottlenecks", USDOT Region V Regional University Transportation Center Final Report, Nexttrans Project No 046IY02.
- [22] H. Ramezani, R. Benekohal, **K. A. Avrenli**. (2010, September). "Queue and User's Costs in Highway Work Zones", Illinois Center for Transportation, Research Report FHWA-ICT-10-075.
- [23] R. Benekohal, **K. A. Avrenli**, and H. Ramezani. (2009, October). "Traffic Flow Characteristics and Capacity in Intelligent Work Zones", USDOT Region V Regional University Transportation Center Final Report, Nexttrans Project No 009IY01.

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