

EDUCATION	Ph.D., Civil Engineering	University of Illinois at Urbana Champaign	June, 2015
	<ul style="list-style-type: none"> Thesis Title: <i>Effectiveness of Adaptive Flight Planning in Post-Bird Strike Total Loss of Thrust</i> 		
	M.S., Statistics	University of Illinois at Urbana Champaign	May, 2011
	M.S., Civil Engineering	Boğaziçi University	June, 2006
	<ul style="list-style-type: none"> Thesis Title: <i>Arterial Signal Coordination and Optimization – A Case Study in Istanbul</i> 		
	B.S., Civil Engineering	Boğaziçi University (ABET-accredited program)	July, 2004
	<ul style="list-style-type: none"> High Honors Degree 		
EXTRAMURALLY FUNDED RESEARCH	Doctoral Thesis Research		2011 - Present
	<ul style="list-style-type: none"> 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 		
	Statistical Analysis of Flagger Effects in Work Zone Safety		2010 - 2012
	<ul style="list-style-type: none"> 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 		
	WorkZoneQ		2010 - 2012
	<ul style="list-style-type: none"> 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 		
	Empirical Modelling of Queue and Users' Costs in Interstate Work Zones		2009 - 2010
	<ul style="list-style-type: none"> 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 		
	Statistical Analysis of Traffic Flow Characteristics in Intelligent Work Zones		2008 – 2009
	<ul style="list-style-type: none"> 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 		
	Empirical Estimation of Work Zone Capacity		2008 - 2010
	<ul style="list-style-type: none"> 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	Dissertation Completion Grant	2014
	<ul style="list-style-type: none"> Granted by: <i>Department of Civil Engineering at the University of Illinois at Urbana Champaign</i> \$6,000 grant awarded for dissertation research 	
	Daniel B. Fambro Research Paper Award	2014
	<ul style="list-style-type: none"> Granted by: <i>Institute of Transportation Engineers, Midwestern Section</i> \$600 awarded to the best graduate research paper in the 11-State Midwest Area 	
	Dissertation Travel Grant	2014
	<ul style="list-style-type: none"> Granted by: <i>Graduate College at the University of Illinois at Urbana Champaign</i> \$5,000 awarded to 12 Ph.D. students with outstanding thesis work in the Graduate College 	
	Best Research Paper Award	2014
TEACHING AWARDS	<ul style="list-style-type: none"> Granted by: <i>Institute of Transportation Engineers, Midwestern Section</i> \$1,000 awarded to the best graduate research paper in the state of Illinois 	
	Medearis Fellowship	2014
	<ul style="list-style-type: none"> Granted by: <i>Department of Civil Engineering at the University of Illinois at Urbana Champaign</i> \$7,000 awarded to one first-year grad student in Civil Engineering 	
	Best M.S. Thesis in Transportation	2014
	<ul style="list-style-type: none"> Granted by: <i>Turkish Ministry of Transportation</i> \$1,500 awarded to the best M.S. Thesis in Transportation in the country 	
EXTRA- CURRICULAR AWARDS	TÜBİTAK Fellowship	2014
	<ul style="list-style-type: none"> Granted by: <i>The Scientific and Technologic Research Council of Turkey</i> \$3,000 awarded to outstanding M.S. students in the country 	
	CEE Alumni Award for Teaching Excellence	2014
	<ul style="list-style-type: none"> Granted by: <i>Department of Civil Engineering at the University of Illinois at Urbana Champaign</i> \$10,000 monetary award granted owing to exceptional performance in teaching Applied Statistical Methods 	
	“Outstanding” Rating in the List of Teachers Ranked as Excellent by Students	2012 - 2014
	<ul style="list-style-type: none"> Granted by: <i>Center for Innovation in Learning and Teaching</i> Rated as “outstanding” four times in a row based on official course evaluations 	
	Deanery Special Award for Teaching Excellence	2006
	<ul style="list-style-type: none"> Granted by: <i>Faculty of Engineering at Boğaziçi University</i> Awarded to one outstanding teaching assistant in the Faculty of Engineering 	
	First Place Award, “Illinois International” Photo Contest	2014
	<ul style="list-style-type: none"> Awarded by: <i>Study Abroad Office at the University of Illinois, Urbana Champaign</i> 	
	First Place Award, “European Citizens” Photo Contest	2014
	<ul style="list-style-type: none"> Awarded by: <i>European Union Center at the University of Illinois, Urbana Champaign</i> 	
	Second Place Award, Collegiate Traffic Bowl Competition	2009 & 2010
	<ul style="list-style-type: none"> Awarded by: <i>Institute of Transportation Engineers, Midwestern Section</i> 	

TEACHING EXPERIENCE	Syracuse University	
	<ul style="list-style-type: none"> Data Analysis and Decision Making (MBA@ Syracuse, MBC 638) Fall 2015 Managerial Statistics (MAS 261) Fall 2015 	
	University of Illinois at Urbana Champaign	
	<ul style="list-style-type: none"> Applied Statistical Methods (ABE 440) Fall 2012 - Spring 2015 <i>Inferential statistics, analysis of variance, fixed & random effects models, linear regression, experimental design, categorical data analysis</i> VBA Programming (in CEE 405) Fall 2014 Traffic Capacity Analysis (CEE 416) Fall 2011 Geometric Design of Roads (CEE 415) Fall 2008 	
	Boğaziçi University (ABET-accredited program)	
	<ul style="list-style-type: none"> Transportation Systems Engineering (CE 461) Fall 2004 - Summer 2006 	
PROFESSIONAL DEVELOPMENT IN TEACHING	Center for Innovation in Learning and Teaching (University of Illinois at Urbana Champaign)	
	<p>Completed Teaching Certificates:</p> <ul style="list-style-type: none"> <i>Technology-Enhanced Teaching</i> 2014 <i>Teaching Scholar</i> 2014 <i>Graduate Teacher</i> 2013 <i>Foundations in Teaching</i> 2012 <p>Completed 34 hours of workshops on effective teaching strategies 2011 - 2014</p>	
SERVICE	Champaign County Humane Society	
	Voluntary dog-walker for shelter animals 2014 - Present	
	University of Illinois at Urbana Champaign	
	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	
	Boğaziçi University	
	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	

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.

REFEREED
CONFERENCE
PRESENTATIONS

- [9] **Avrenli, K. A.**, and B. J. Dempsey. (2015). *From Yesterday’s Three- and Four-Engine Airlines to Twin-Engine Airlines: Are Bird Strikes More Hazardous for Today’s Twin-Engine Aircraft?* TRB 94th 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 91st 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 90th 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 90th 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 90th 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 90th 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.

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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