

Sogand Karbalaieali

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EDUCATION

PhD, Civil Engineering - Transportation Engineering Louisiana State University, Baton Rouge, Louisiana <i>Thesis: "Automated merging algorithm: a cooperative-approach for connected automated vehicles in platoons"</i> <i>Courses: Traffic Operations and Control, Urban Transportation Policy & Planning, GIS, Experimental Statistics</i>	Jan.2014-Aug.2018 GPA 3.8
MS, Civil Engineering - Geotechnics Engineering Iran University of Science and Technology, Tehran, Iran <i>Thesis: "EKGS Application For Hydro-Mechanical Behavior Changing In Saturated Clay"</i>	Sep.2009-Dec.2011 GPA 3.5
BS, Civil Engineering University of Tabriz, Tabriz, Iran	Sep.2004-Dec.2008 GPA 3.2

EXPERIENCE

Graduate Research Assistant Department of Civil and Environmental Engineering, Louisiana State University Development of Guidelines for Ramp Metering Implementation and Performance Evaluation on I-12 Baton Rouge, LA <ul style="list-style-type: none">• Create I-12 and surrounding arterial network in Vissim simulation based on real traffic count and signal schedules• Assess active traffic management simulations on I-12 Baton Rouge in Vissim simulation models• Contribute to write a technical report will be submitted to LTRC (FHWA/LA.08/50717-5SS) Collaboration for Crash and Near-Crash Prediction using SHRP2 Naturalistic Driving Study <ul style="list-style-type: none">• Extract data sets using Matlab, R-program and high performance computing• Collaborate with researchers in computer science and traffic engineering to implement Machine Learning• Contribute to write two papers accepted for presentation in TRB 2018 Annual Meeting Development of Cooperative Automated Merging for my Thesis Research <ul style="list-style-type: none">• Develop automated merging models to optimize total travel time via vehicle to vehicle communication• Collaborate to prepare 2 papers which are accepted in TRB2018 annual meeting• Write a paper according to the findings accepted for presentation in TRB 2018 Annual Meeting	Aug.2015-Current
Teaching Assistant Department of Civil and Environmental Engineering, Louisiana State University <ul style="list-style-type: none">• Leading plane surveying and measurements laboratory for 50 students in 2 classes	Sep.2015-Dec.2015
Graduate Assistant College of Engineering, External Relationship Office, Louisiana State University <ul style="list-style-type: none">• Assist director of external relations in college of engineering stewardship for more than 200 recipients• Work with director of external relations on developing more than 20 alumni and corporate sponsorship programs	Sep.2015-Jul.2016

PUBLICATION & PRESENTATION

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- **Sogand Karbalaieali**, O. Osman, Ishak S. (2018) "Evaluation of a Novel Model for Cooperative Merging of Connected Automated Vehicles onto Automated Highways." Transportation Research Board, Washington, D.C.
 - O. Osman, Hajij M., **Karbalaieali S.**, Ishak S. (2018) "Crash and Near-Crash Prediction from Vehicle Kinematics Data: A SHRP2 Naturalistic Driving Study." Transportation Research Board, Washington, D.C.
 - O. Osman, Hajij M., **Karbalaieali S.**, Ishak S. (2017) "Secondary Task Identification from Observed Driving Behavior Data: A Hierarchical Machine Learning Classification Approach using SHRP2 NDS Data." Submitted to Accident Analysis & Prevention.
 - Osman O., Mousa O., **Karbalaieali S.**, Bakhit P., Ishak S. (2017) "Comparative performance evaluation of freeway corridor operation under local and system ramp metering strategies." Submitted to Transportation Letters: The International Journal of Transportation Research.

HONORS & AWARDS

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- Awarded National Operations Center of Excellence ePortfolio Contest, 2017
 - The Gulf Region Intelligent Transportation Society scholarship, 2017
 - Second place in Civil & Environmental Eng. Graduate Student Research Conference at LSU, 2017
 - Guest speaker at New Graduate Student Welcome at Collage of Engineering, Louisiana State University, 2017
 - Resolution Regarding Graduate Scholars, Fellows, Trainees, and Assistants, Council of Graduate Schools, LSU
 - Yoga and Meditation at Louisiana State University International Cultural Center, Yoga Instructor, 2015-current

SKILLS & INTERESTS

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- *Programming:* R-programming, python, Matlab, Vissim, TransCAD, ArcGIS
 - *Memberships:* Society of Women Engineer, Young Members Council at TRB, ASCE, ITE-Student Chapter
 - *Interests:* Autonomous transportation, ride sharing, Connected Automated Vehicle Technology, Traffic management
 - *Personal Growth:* Character Building, Yoga, Running, Audiobooks, Gardening