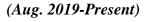


# Hany Hassan, Ph.D., P.E.

# **CURRENT POSITION**

Assistant Professor in Transportation Engineering 3255 Patrick F. Taylor Hall, Department of Civil and Environmental Engineering Louisiana State University, Baton Rouge, LA 70803 Phone: (225) 578-6588 Email: hassan1@lsu.edu https://www.lsu.edu/eng/cee/people/hanyhassan.php http://scholar.google.ae/citations?user=NTpYt3oAAAAJ&hl=en





# **PROFESSIONAL PROFILE**

- A registered professional engineer in the state of Louisiana (PE.00447750).
- Self-motivated and highly skilled professional in Transportation Engineering
- Over 14 years of experience in Academia (teaching and research) through working as graduate research assistant, post-doctoral/ senior researcher, and assistant professor in Transportation Engineering
- Over 10 years of industrial experience through working as a transportation engineer as well as projects' manager in several transportation firms.
- Experienced in managing numerous road design projects, traffic impact studies and ITS projects.
- Experienced in managing many funded research projects.
- Handling Editor of the journal of Transportation Research Record.
- Member and paper review coordinator for TRB's standing Committee on Intelligent Transportation Systems (ACP 15).
- Member and paper review coordinator for the TRB's Standing Committee on Human Factors of Infrastructure Design and Operations (ACH40).

# **EDUCATION**

University of Central FloridaOrlando, USADoctor of Philosophy in Civil Engineering (Transportation)August 2011Dissertation: Improving Traffic Safety and Driver Behavior in Reduced Visibility Conditions

#### **Ain Shams University**

Cairo, Egypt Master of Science in Civil Engineering (Transportation) Dissertation: *Environmentally Oriented Road Design* 

#### Ain Shams University

Cairo, Egypt Bachelor of Science in Civil Engineering (Grade: Distinction with honor) June 2000 Graduation Rank: *No. 4 out of 225 students* Graduation Project: *Highway and Airport Engineering Project* (Grade: Distinction)

September 2005

# **RESEARCH INTERESTS**

Traffic Safety, Smart/Intelligent Transportation Systems, Emerging Technologies in Transportation Engineering (connected and autonomous vehicles, smart cities), Highway Geometric Design, Human factors and drivers' behaviors, Traffic Operation and Simulation, and Statistical Applications in Transportation Engineering.

## **GOOGLE SCHOLAR**

According to my google scholar, my work has been cited more than 1100 times to date by other researchers (my h-index is 17 and my i10-index is 18). More details can be found at my google scholar profile, which is located at:

[http://scholar.google.ae/citations?user=NTpYt3oAAAAJ&hl=en].

	Hany Hassan, Ph.D., P.E. 🖉		FOLLOWING	Cited by		VIEW
10	Assistant Professor, <u>Louisiana State University</u> Verified email at Isu.edu - <u>Homepage</u> Transportation Safety ITS drivers' behaviors Emerging Technologies	in T		Citations h-index i10-index	All 1147 17 19	Since
TITLE 🔁	:	CITED BY	YEAR		_	
MA Abdel-Aty, H	diction of visibility related crashes M Hassan, M Ahmed, AS Al-Ghamdi search part C: emerging technologies 24, 288-298	159	2012	-1	dH	
Equation Mod HM Hassan, MA	ivers' behavior under reduced visibility conditions using a Structural leling approach Abdel-Aty search part F: traffic psychology and behaviour 14 (6), 614-625	120	2011	2017 2018 2019	2020 2021 2022 2023	2024
Exploring the	safety implications of young drivers' behavior, attitudes and perceptions	109	2013			

# **PROFESSIONAL MEMBERSHIPS**

(1) Professional Engineer (PE.0047750), Louisiana, USA	April 2023 – Present
(2) Handling Editor of the Journal of Transportation Research Record	Dec. 2020 – Present
(3) Member & papers review coordinator, TRB Committee on Inte Systems, ACP15	elligent Transportation Aug. 2019 – Present
(4) Member & papers review coordinator, TRB Standing committee Infrastructure Design and Operation, ACH40	on Human Factors of <b>Aug. 2020 – Present</b>
(5) Member in TRB Standing committee on Users Information Systems	, AND20
	Jan. 2010 – Jul. 2019
(6) Faculty advisor for the Institute of Transportation Engineers (ITE) s	tudent chapter at LSU.
	Aug. 2019-Present
(7) American Society of Highway Engineers (ASHE), Vice President A	Aug. 2008 – Aug. 2011
(8) The Institute of Transportation Engineers (ITE), UCF	Aug. 2009 - Aug. 2011
(9) Graduate Student Association (GSA), UCF	Aug. 2010 - Aug. 2011

# ACADEMIC HONORS AND AWARDS

- Chairman's Award from the TRB Intelligent Transportation Systems Committee (ACP15) for my exceptional service and leadership as the Chair of the Paper Review Team, January 2024.
- Certificate of Appreciation from the TRB Committee on Human Factors of Infrastructure Design and Operation (ACH40) in recognition of outstanding efforts to organize and conduct the technical paper review process for the committee, January 2023.
- Certificate of Excellence in Teaching to certify completion of the May 2023 Communication Intense (C-I) Teaching Lab for Experienced C-I teachers, Louisiana State University, May 2023.

- Certificate of Appreciation, for contributing towards the success of the 4<sup>th</sup> International Road Federation Asia-Pacific Regional Congress, from the organizing committee, Malaysia, October 2022.
- Certificate of Excellence in Teaching to certify completion of the May 2021 Communication Intense (C-I) Teaching Lab, Louisiana State University, May 2021.
- Nominee, the Civil department level award for outstanding Ph.D. dissertation, Faculty of Engineering, University of Central Florida, USA, October 28, 2011
- Recipient, Arab American Community Center Endowed Scholarship, Orlando, March 2011
- Recipient, the Intelligent Transportation Society of Florida scholarship (the Anne S. Brewer Scholarship), one of three recipients on the state level, December 2009
- Recipient, the American society of Highway Engineers (ASHE) scholarship, April 2009
- Nominee, the college level award for outstanding M.Sc. dissertation, Faculty of Engineering, Ain Shams University, Cairo, Egypt, 2005

#### SUMMARY OF ACADEMIC EXPERIENCE

Aug. 2019 – Present	Assistant Professor in Transportation Engineering, Department of Civil and Environmental Engineering, Louisiana State University, Baton Rouge, LA, USA
Apr. 2018 – July 2019	Senior Researcher in Transportation Engineering, McMaster Institute for Transportation and Logistics (MITL), McMaster University, Hamilton, ON, Canada.
Oct. 2011 – Sep. 2013	Assistant Professor in Transportation Engineering, Civil Engineering Department, King Saud University, Riyadh, Saudi Arabia.
Aug. 2008 – Aug. 2011	Graduate Research Assistant / Ph.D. Candidate, Department of Civil, Environmental and Construction Engineering, University of Central Florida, Orlando, FL, USA.
Mar. 2002 – Jul. 2008	Assistant lecturer in Highway Engineering, Department of Civil Engineering, Ain Shams University, Cairo, Egypt.

#### SUMMARY OF INDUSTRIAL EXPERIENCE

Oct. 2013- March 2018	Senior Transportation Engineer / Projects manager, Department of traffic engineering and road safety, Abu Dhabi Police / TATWEER for Traffic Assets & Systems Operation and Management L.L.C, Abu Dhabi, UAE		
Dec. 2006 – Jul. 2008	Highway Design Engineer, Transportation Engineering Department, Dar Al-Handasah (Shair and partners) Company, Cairo, Egypt		

# FUNDED RESEARCH PROJECTS

#### **Ongoing funded projects**

- **1. Trip Generation for Various Sites (Jan. 2024 Dec. 2025)**, source of funding: Louisiana Transportation Research Center (LTRC) / LADOTD, my role is: Co-Investigator.
- 2. Development of Statewide Design Guidelines for Improving Pedestrian Safety on High-Speed Arterials in Louisiana (Oct. 2022 – March 2024), source of funding: Louisiana Transportation Research Center (LTRC) / LADOTD, my role is: Principal Investigator.
- **3. Safety and Traffic Operations at Cloverleaf Interchanges (Aug. 2022 July 2024)**, source of funding: Louisiana Transportation Research Center (LTRC) / LADOTD, my role is: Principal Investigator.
- **4.** Maximizing the positive impacts of truck platooning on US highways, (June 2022 June 2025), Source of Support: LA Board of Regents (BOR), my role is: Principal Investigator.

#### **Completed funded projects**

- 1. Examining drivers' behaviors to connected and automated vehicles (August 2021 Feb. 2023), Source of Support: US Department of Transportation / The Transportation Consortium of South-Central States, my role was: Principal Investigator.
- Vehicle to Infrastructure (V2I) and Vehicle to Vehicle (V2V) passenger and freight vehicle applications to enhance safety and efficiency in coastal evacuations (Aug. 2022 Aug. 2023), Source of support: USDOT Tier 1 University Transportation Center, my role was: Co-PI, (Principal Investigator is Dr. Brian Wolshon).
- 3. Exploring older adults' mobility challenges and preferences before and after COVID-19 pandemic (April 2022 – Oct. 2023), Source of Support: US Department of Transportation / The Transportation Consortium of South-Central States, my role was: Principal Investigator.
- **4. Minimum Intersection Illumination** (**May 2021 October 2022**), Source of Support: Louisiana Department of Transportation and Development / Louisiana Transportation Research Center (LTRC), my role was: Principal Investigator.
- 5. Studying the impacts of Vehicle-to-Infrastructure (V2I) technologies on drivers' behaviors and traffic safety (July 2021 June 2022), TIRE Program. Source of Support: Louisiana Department of Transportation and Development / Louisiana Transportation Research Center (LTRC), my role was: Principal Investigator.
- 6. Exploring traffic safety problems and challenges of older roads' users in Louisiana: Causes and countermeasures (Aug. 2020 – Feb 2022), Source of Support: US Department of Transportation / The Transportation Consortium of South-Central States, my role was: Principal Investigator.
- Developing Notification and Enforcement Systems to Communicate and Administer Bridge Load Postings (Aug. 2020 – Feb 2022). Source of Support: US Department of Transportation / The Transportation Consortium of South-Central States, my role was: Principal Investigator.
- 8. Investigating the Impacts of Truck Platooning on Transportation Infrastructure in the South-Central (From Aug. 2019 to Feb. 2021). Source of Support: US Department of Transportation. My role was: Principal Investigator.
- **9.** Real-Time Work Zone Traffic Management via Unmanned Air Vehicles (From Aug. 2019 to Feb. 2021). University Transportation Centers Program, Department of Transportation, Washington, DC, United States. My role was: co-Investigator.

- **10. Maintaining the mobility of older Canadians: Examining older adults' preferences and needs for using different transportation modes.** Funded by McMaster Institute for Research on Aging (MIRA), Canada (Sep. 2018 Aug. 2019), my role was main researcher/project manager.
- **11. Examining traffic safety challenges of older Pedestrians in Canada.** Funded by Provost Research Excellence, Canada (Oct. 2018 Oct. 2019), my role is main researcher/project manager.
- **12.** Developing an artificial immune system to control roadway traffic signals and regulate traffic flow in case of emergencies. Funded by King Abdulaziz City for Science and Technology (KACST), Riyadh. From Dec. 2014 to Dec. 2017. My role was: co-I.
- 13. Young drivers' safety study. Funded by Florida Department of Transportation, District 5. From Aug. 2010 to Aug. 2011. My role was: main researcher.
- 14. Developing an early detection system for reduced visibility from fog/smoke and means to effectively and timely warn drivers. Funded by Florida Department of Transportation. From Aug. 2008 to Aug. 2010. My role was: main researcher.
- **15. Developing an intelligent GIS Traffic Safety Management System (ITSMS) for Abu Dhabi, UAE.** Funded by Department of traffic engineering and road safety, Abu Dhabi police, UAE. From March 2016 to March 2018. My role was: Project manager.
- **16.** Developing a national transportation tracking system for Hazardous materials' trucks in UAE. Funded by Ministry of Interior, UAE. From Oct. 2015 to Dec. 2017. My role was: Project manager.
- 17. Design and Project Management Services for Implementation and Operation of a Smart Traffic Management Centre in Abu Dhabi Emirate. Funded by Department of traffic engineering and road safety, Abu Dhabi police, UAE. From June 2013 to June 2017. My role was: Project manager.

## **GRADUATE STUDENTS' ADVISEES**

Major Advisor (1 PhD complete, 4 Masters complete, 3 PhDs in progress, 4 Masters in progress,)

Student Name	Degree Status	Degree dates				
Master students						
Adilur Rahim	Completed	Spring 2020 – Spring 2022 (Graduated spring 2022)				
Hisham Kunnah	Completed	Spring 2021 – Spring 2023 (Graduated spring 2023)				
Bernard Boakye	Completed	Spring 2022– Fall 2023 (Graduated fall 2023)				
Sirisha Gangireddy*	Completed	Fall 2021 – Fall 2023 (Graduated fall 2023)				
Nischal Khadka	in progress	Fall 2022– Present (Expected graduation: Summer 2024)				
Anish K C	in progress	Fall 2022– Present (Expected graduation: Summer 2024)				
Manika Rana Bhat*	in progress	Fall 2022– Present (Expected graduation: Fall 2024)				
Armaghan Monshizadegan*	in progress	Fall 2022– Present (Expected graduation: Fall 2024)				
	PhD students					
Saba Doulabi	Completed	(Fall 2019 – Fall 2022) (Graduated Fall 2022)				
Taniya Sultana	in progress	Fall 2021 – Present (Expected graduation: Summer 2024)				
Mohamed Mohamed	in progress	Summer 2022 – Present (Expected graduation: Summer 2025)				
Alaa Shams	in progress	Spring 2021 – Present (Expected graduation: Spring 2026)				

\* Students who are co-advised and received their salary from Dr. Rebecca Bian, LTRC

#### **Committee Member** (4 PhDs, 3 Masters)

Committee Member (41 mDs; 5 Masters)						
Student Name	Degree	Graduation Date				
Liana Baconguis*	PhD	Fall 2021 – Fall 2024				
Hossam Abohamer	PhD	Fall 2019 – Spring 2022				
Shaopan Guo	PhD	Fall 2021 - Present				
Sailesh Acharya,	PhD Utah State University	Fall 2021 - Present				
Mishuk Majumder	MSc	Spring 2019 – Fall 2020				
Md Nafis Imtiyaz	MSc	Spring 2020 - Fall 2021				
Ibrahim Elnaml	MSc	Fall 2020 – Spring 2022				

\* Serving as a dean representative for this PhD student from the school of Veterinary Medicine, LSU

## Undergraduate Research Advising (6 undergraduate students)

Student Name	Dates		
Jodie Robinson	Spring 2024		
Connor Crow	Summer 2022		
Brennan Smith	Summer 2022		
Kenneth Odinet	Summer 2021		
Josue Angel Palacios	Summer 2021		
Adam Joseph Dupuy	Spring 2020		
Caleb Michael Freyder	Spring 2020		

## Honor Thesis Advising (1 undergraduate student)

Student Name	Dates			
Nathalie Dante	Fall 2021 - Spring 2022			

#### **REFEREED JOURNAL PUBLICATIONS**

(\* corresponding author, <u>underlined</u>: advised students):

- 1. <u>Doulabi, S.\*</u>, <u>Abdu Kunnah, H.,</u> **Hassan, H.** (2023). Improving Road Safety at Horizontal Curves using V2I Speed Warning Messages, Journal of Safety Research, In press Available online Dec 19, 2023,<u>https://doi.org/10.1016/j.jsr.2023.10.009</u>
- <u>Abdu Kunnah, H.\*, Hassan, H.</u> (2023). An Exploration of the Effects of Various Street Lighting Conditions on Driver Behaviors and Safety at Stop-controlled Intersections: A Driving Simulator Experiment. Journal of Transportation Safety & Security [ISSN: 1943-9962], <u>https://doi.org/10.1080/19439962.2023.2236035</u>
- 3. <u>Doulabi, S.</u>\*, **Hassan, H.** (2023). Near-term impact of COVID-19 pandemic on seniors' crash size and severity. Accidents Analysis and Prevention, Vol 185, 107037, <u>https://www.sciencedirect.com/science/article/pii/S0001457523000842</u>
- 4. <u>Doulabi, S.</u>\*, **Hassan, H.**, Li, B. (2023). Senior Americans' Perceptions, Attitudes, and Safety Concerns toward AVs. Journal of Safety Research., Vol 84, Pages 218-231, <u>https://www.sciencedirect.com/science/article/pii/S002243752200175X?via%3Dihub</u>
- 5. **Hassan, H.\*,** Lauzon, M., Ferguson, M., Newbold, B., Vrkljan, B., Razavi, R. (2022). Factors affecting driving cessation of older adults and their satisfaction with mobility options, Transportation Research Record, 1-10, <u>https://doi.org/10.1177/03611981211065739.</u>
- 6. <u>Rahim, A.</u>\*, **Hassan, H.** (2021). A Deep Learning Based Traffic Crash Severity Prediction Framework. Accident Analysis and Prevention, Volume 154, 106090, available at <u>https://www.sciencedirect.com/science/article/pii/S0001457521001214</u>
- Doulabi, S.\*, Hassan, H., Ferguson, M., Razavi, S. and Paez, A. (2021). Exploring the determinants of older adults' susceptibility to pedestrians' incidents. Accident Analysis and Prevention, volume 155, 106100, https://www.sciencedirect.com/science/article/pii/S0001457521001317
- 8. **Hassan, H.\***, Ferguson, M., Vrkljan, B., Newbold, B., Razavi, R. (2021). Older adults and their willingness to use semi and fully autonomous vehicles: A structural equation analysis. Journal of Transport Geography, 95, 103133, available at <u>https://www.sciencedirect.com/science/article/abs/pii/S0966692321001861</u>
- 9. Paez, A.\*, **Hassan, H.,** Ferguson, M. & Razavi, S. (2020). A systematic assessment of the use of opponent variables, data subsetting and hierarchical specification in two-party crash severity analysis. Accident Analysis and Prevention, Volume 144, 105666, <u>https://www.sciencedirect.com/science/article/abs/pii/S0001457520303298</u>
- Hassan, H.\*, Ferguson, M., Razavi, S. and Vrkljan, B. (2019). Factors that influence Older Canadians' Preferences for using Autonomous Vehicle Technology: A Structural Equation Analysis. Transportation Research Record, Vol. 2673(1), pp. 469–480. <u>https://journals.sagepub.com/doi/full/10.1177/0361198118822281</u>
- 11. **Hassan, H.,** Shawky, M., Kishta, M., Garib, A. & Al-Harthei, H. (2017). Investigation of drivers' behavior towards speeds using crash data and self-reported questionnaire. Accident Analysis and Prevention, 98, pp. 348–358.
- 12. Shaaban, K. & **Hassan, H.** (2017). Underage Driving and Seat Belts Use of High School Teenagers in Qatar. Journal of Transportation Safety and Security, Volume 8, pp. 115-129.
- 13. Shawky, M., **Hassan, H.,** Garib, A. & Al-Harthei, H. (2016). Examining the Factors Affecting the Severity of Run-off-Road Crashes in Abu Dhabi. Canadian Journal of Civil Engineering, 43, pp. 132–138.

- 14. **Hassan, H.** (2016). Investigation of the self-reported aberrant driving behavior of young male Saudi drivers: A survey-based study. Journal of Transportation Safety and Security, VOL. 8, NO. 2, 113–128.
- 15. Sahnoon, I., Sarhan, M., **Hassan, H.,** Garib, A. & Al-Harthei, H. (2016). Impact of Red-Light Enforcement Cameras on Safety Performance at Signalized Intersections in Abu Dhabi. Transportation Research Record, 2584, pp. 16–23.
- 16. **Hassan, H.**, Albusaeedi, N., Garib, A. & Al-Harthei, H. (2015). Exploring the nature and severity of heavy trucks crashes in Abu Dhabi, Transportation Research Record, 2517, pp. 1-9.
- 17. Shaaban, K. & **Hassan, H.** (2014). Modeling Significant Factors affecting Commuters' Perspectives and Propensity to Use the New Proposed Metro Service in Doha. The Canadian Journal of Civil Engineering, 41, pp. 1054–1064.
- 18. **Hassan, H.** & Al-Faleh, H. (2013). Exploring the risk factors associated with the size and severity of roadway crashes in Riyadh. Journal of Safety Research, 47, pp. 67–74.
- 19. **Hassan, H.** & Abdel-Aty, M. (2013). Predicting Reduced Visibility Related Crashes on Freeways Using Real-Time Traffic Flow Data. Journal of Safety Research, 45, pp. 29-36.
- 20. **Hassan, H.** & Abdel-Aty, M. (2013). Exploring the Safety Implications of Young Drivers' Behavior, Attitudes and Perceptions. Accident Analysis & Prevention, 50, pp. 361-370.
- 21. **Hassan, H.**, Abdel-Aty, M., Choi, K. & AlGadhi, S. (2012). Driver Behavior and Preferences for Changeable Message Signs and Variable Speed Limits in Reduced Visibility Conditions. Journal of Intelligent Transportation Systems, 16(3), pp. 1–15.
- 22. Abdel-Aty, M., **Hassan, H.**, Ahmed, M. & Al-Ghamdi, A.S. (2012). Real-time prediction of visibility related crashes. Transportation Research Part C, 24, pp. 288–298.
- 23. **Hassan, H.** & Abdel-Aty, M. (2011). Analysis of drivers' behavior under reduced visibility conditions using a structural equation modeling approach. Transportation Research Part F, 14(6), pp. 614–625.
- 24. Pande, A., Das, A., Abdel-Aty, M. & **Hassan, H.** (2011). Real-time crash risk estimation: are all Freeways created equal? Transportation Research Record, 2237 (2), pp. 60–66.

# **REFEREED CONFERENCE PUBLICATIONS**

- <u>Gangireddy, S.,</u> R. Bian, T. Tolford, and H. Hasan. (2023) Incorporating the Concept of Complete Streets into Pavement Preservation. ASCE Conference Proceedings of the International Conference on Transportation & Development (ICTD) (https://ascelibrary.org/doi/10.1061/9780784484883.020)
- 2. <u>Doulabi, S.</u>, **Hassan, H.**, Li, B. (2022). Exploring Seniors' Perceptions and Attitudes toward Autonomous Vehicles after Experiencing the COVID-19 Pandemic. Accepted for Presentation at Annual meeting of Transportation research board, Washington DC, Jan. 2023.
- Doulabi, S.\*, Hassan, H. (2021). Analyzing Older Drivers' Crash Severity in Louisiana. Tran-SET 2021, June 3–4, 2021 | Virtual Conference, © 2021 American Society of Civil Engineers. Available online at https://filestogeaux.lsu.edu/public/download.php?FILE=louaym/94700asBSFK
- **4. Hassan, H.,** Lauzon, M., Ferguson, M., Newbold, B., Vrkljan, B., Razavi, S. (2021). Factors affecting driving cessation of older adults and their satisfaction with mobility options. Annual meeting of Transportation research board.

- 5. **Hassan, H.,** Byrne, K., Ferguson, M., Newbold, B., Vrkljan, B., Razavi, S. (2020). Older Canadians' preferences, challenges, and concern to use current and emerging transportation alternatives. Annual meeting of Transportation research board.
- 6. **Hassan, H.,** Ferguson, M., Vrkljan, B. and Razavi, S. (2019). Factors that influence Older Canadians' Preferences for using Autonomous Vehicle Technology: Annual meeting of Transportation research board.
- 7. Farooqui, N., Ferguson, M. and Razavi, S. (2019). Examining Contributing Factors to Motorcycle Crashes using Matched Case-Control Logistic Regression. Transportation Research Record, Annual meeting of Transportation research board.
- 8. **Hassan, H.,** Sarhan, M., Garib, A., Al Harthei, H. (2017). Drivers' Time Headway Characteristics and Factors Affecting Tailgating Crashes. Transportation Research Board, 96<sup>th</sup> Annual Meeting Compendium of Papers, TRB 17-03478.
- 9. Sahnoon, I., **Hassan, H.,** Sarhan, M., Garib, A., Al Harthei, H. (2016) Impact of Red-Light Enforcement Cameras on Safety Performance at Signalized Intersections in Abu Dhabi, Annual Meeting of the Transportation Research Board, Washington DC.
- Shaaban, K., Hassan, H. (2016). Problems of Underage Driving and Seat Belt Use among High School Teenagers in Qatar. Transportation Research Board, 95<sup>th</sup> Annual Meeting Compendium of Papers, TRB 16-3613.
- Hassan, H., Shawky, M., Garib, A., Al-Harthei, H. (2015). Examining the differences between contributing factors affecting the severity of Single and Multi-Vehicle Crashes. Transportation Research Board, 94<sup>th</sup> Annual Meeting Compendium of Papers, TRB 15-3625.
- 12. Shawky, M., **Hassan, H.**, Garib, A., Al-Harthei, H. (2014). Examining Factors Affecting the Severity of Run-off-Road Crashes: Abu Dhabi Case Study. Presented at the 1<sup>st</sup> IRF Asia Regional Congress in Bali, Indonesia.
- 13. **Hassan, H.** (2014). Examining the factors associated with the involvement of the Saudi' young drivers in at-fault crashes: A Survey-Based Study. Transportation Research Board, 93<sup>th</sup> Annual Meeting Compendium of Papers, TRB 14-0789.
- 14. Shaaban, K., **Hassan, H.** (2014). Exploring the Factors Affecting Commuters' Perspectives and Tendency to use a Proposed Public Transit Service. Transportation Research Board, 93<sup>th</sup> Annual Meeting Compendium of Papers, TRB 14-0595.
- Hassan, H., Al-Faleh, H., & Al-Rashidi, A. (2013). Comprehensive Analysis of the Severity and Nature of Traffic Crashes Occurring on Rural Roads in KSA. 17<sup>th</sup> IRF World Meeting & Exhibition, Riyadh, Nov. 2013.
- 16. **Hassan H.**, Dimitriou, L. (2013). Examining Severe Traffic Crashes in Riyadh using Different Data Mining Techniques. WCTR Rio, Brazil.
- 17. Dimitriou, L., **Hassan H.** (2013). Spatial Prediction of Car Crashes Severity Based on Dynamically Updated MIMO Autoregressive Neural Models. WCTR Rio, Brazil.
- Hassan H., Dimitriou, L., Abdel-Aty M. and Al-Ghamdi, A. (2013). Analysis of Risk Factors Affecting the Size and Severity of Traffic Crashes in Riyadh, Transportation Research Board, 92<sup>th</sup> Annual Meeting Compendium of Papers, paper no.13-2333
- Dimitriou, L. and Hassan H. (2013). Dynamic Autoregressive Neural Networks for Spatially Distributed Time Series Prediction of Car Crashes in Urban Networks, Transportation Research Board, 92<sup>th</sup> Annual Meeting Compendium of Papers, paper no.13-4272

- 20. Abdel-Aty M. **Hassan H.** and Ahmed M. (2012). Real-time analysis of visibility related crashes: can loop detector and AVI data predict them equally? Transportation Research Board, 91<sup>th</sup> Annual Meeting Compendium of Papers, paper no.12-0113
- 21. **Hassan H.**, Abdel-Aty M. and Oloufa, A. (2011). The effect of warning messages and variable speeds in different visibility conditions. Transportation Research Board, 90<sup>th</sup> Annual Meeting Compendium of Papers, paper no. 11-0354
- 22. **Hassan H.** and Abdel-Aty M. (2011). Exploring visibility related crashes on freeways based on real-time traffic flow data. Transportation Research Board, 90<sup>th</sup> Annual Meeting Compendium of Papers, paper no. 11-0920
- 23. **Hassan H.** and Abdel-Aty M. (2011). How CMS and VSL affect Drivers' Speeds under Low Visibility Conditions? The Australasian College of Road Safety National Conference, Melbourne
- 24. **Hassan H.** and Abdel-Aty M. (2011). Design and Administration of a survey to Investigate Drivers' responses to Reduced Visibility Conditions, 9<sup>th</sup> International Conference on Transport Survey Methods, Chile
- 25. **Hassan H.**, Abdel-Aty M. and Oloufa, A. (2011). Use and content of CMS and VSL under low visibility conditions, 18<sup>th</sup> ITS world congress, Orlando, USA
- 26. Abdel-Aty M., Oloufa A., **Hassan H.**, Ahmed M. and Siddiqui M. (2010). Portable Visibility Warning System for the Safety of Highways, 17<sup>th</sup> ITS world congress, Busan, Korea

#### PRESENTATIONS

- 1. Sultana, T., **Hassan, H**., and Wolshon, B. Examining Drivers' Perceptions and Preferences Regarding Vehicle to Infrastructure Interactions within Connected Vehicle Technology. Annual Meeting of the Transportation Research Board, Jan. 2024. (presenter: Hany Hassan).
- 2. **Hassan, H**., Rahim, A., Mohamed, M. and Melson, C. Analyzing the Optimal Truck Platooning Configuration on Highways for Economic and Environmental Sustainability. Annual Meeting of the Transportation Research Board, Jan. 2024. (presenter: Hany Hassan).
- 3. Monshizadegan, A., Bian, R., Stopher, P., **Hassan, H.** The Impact of Large-Scale Transportation Infrastructure Investments on Communities. Annual Meeting of the Transportation Research Board, Jan. 2024. (presenter: Armaghan Monshizadegan).
- 4. Bhat, M., Bian, R., Tolford, T., and **Hassan, H.** Understanding the Social Impact of Major Disruptions from the Perspective of Destination Access. Annual Meeting of the Transportation Research Board, Jan. 2024. (presenter: Manika Rana Bhat).
- 5. Khadka, N., and **Hassan, H.** Analyzing the Impact of Connected and Autonomous Vehicles on Traffic Operation and Safety at Cloverleaf Interchanges. Annual Meeting of the Transportation Research Board, Jan. 2024. (Presenter: Nischal Khadka
- 6. **Hassan, H.** How to implement connected and automated logistic solutions into the overall traffic management, 4th International Symposium on Freeway and Tollway Operations, 26-30 June 2023, Vienna/Austria (presenter: Hany Hassan).
- 7. Mohamed, M. **Hassan, H.** Smart Mobility and Autonomous Truck Platooning, the 2023 Spring Gulf Region Intelligent Transportation Systems (GRITS) Workshop, New Orleans, April 4, 2023 (presenter: Hany Hassan).
- 8. Mohamed, M, "Understanding the Impacts of Truck Platooning: From Simulation to Real-World Scenarios" presented in a poster format at the 2023 Graduate Research Conference (GRC), LSU, April 2023, (presenter: PhD student: Mohamed Mohamed)

- 9. Mohamed, M and **Hassan, H.**, "Impacts of Truck Platooning on US Highways: Preliminary Findings from a Driving Simulator Study" presented at the 2023 Louisiana Transportation Conference, Baton Rouge, March 2023 (presenter: Hany Hassan / PhD student: Mohamed Mohamed).
- 10. **Hassan, H.** Truck Platooning Operations and Benefits, 102nd Annual Meeting of the Transportation Research Board, Intelligent Transportation Systems (ACP15) Committee Evening Session, Washington DC, 10 January 2023 (presenter: Hany Hassan).
- 11. Sultana, T. and **Hassan, H.** Investigating how drivers behave differently while dealing with connected and automated vehicle (CAV) platoons and ordinary cars: A driving simulation study, 102<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2023 (presenter: Taniya Sultana).
- 12. Doulabi, S. and **Hassan, H.** Exploring Seniors' Perceptions and Attitudes toward Autonomous Vehicles after Experiencing the COVID-19 Pandemic, 102<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2023 (presenter: Hany Hassan).
- 13. Hassan, H., Minimum Intersection Illumination, Recent and Ongoing Projects at Louisiana Transportation Research Center, Louisiana APA 2022 State Conference: Planning and Public Health, November 9 - 11 | Gallier Hall, 545 St Charles Ave, New Orleans (presenter: Hany Hassan).
- 14. Sultana, T. and Hassan, H. Examine driver's behaviors to V2V and V2I warning massages, 4<sup>th</sup> International Road Federation Asia-Pacific Regional Congress, Kuala Lumpur, Malaysia, October 2022 (presenter: Hany Hassan).
- 15. Mohamed, M. and **Hassan, H.** Smart Mobility and Autonomous Truck Platooning, 4<sup>th</sup> International Road Federation Asia-Pacific Regional Congress, Kuala Lumpur, Malaysia, October 2022 (presenter: Hany Hassan).
- 16. Hassan, H., Lauzon, M., Ferguson, M., Newbold, B., Vrkljan, B., Razavi, S. Factors affecting driving cessation of older adults and their satisfaction with mobility options. 101<sup>st</sup> Annual meeting of Transportation research board, Washington DC, January 2022 (presenter: Hany Hassan).
- 17. **Hassan, H.,** Byrne, K., Ferguson, M., Newbold, B., Vrkljan, B., Razavi, S. Older Canadians' preferences, challenges, and concern to use current and emerging transportation alternatives. 100<sup>th</sup> Annual meeting of Transportation research board, Washington DC, January 2021 (presenter: Hany Hassan).
- Hassan, H., Ferguson, M., Vrkljan, B. and Razavi, S. Factors that influence Older Canadians' Preferences for using Autonomous Vehicle Technology, 99<sup>th</sup> Annual meeting of Transportation research board, Washington DC, January 2020 (presenter: Hany Hassan).
- Hassan, H., Farooqui, N., Ferguson, M. and Razavi, S. Examining Contributing Factors to Motorcycle Crashes using Matched Case-Control Logistic Regression. 99<sup>th</sup> Annual meeting of Transportation research board, Washington DC, January 2020 (presenter: Hany Hassan).
- 20. **Hassan, H.,** Sarhan, M., Garib, A., Al Harthei, H. Drivers' Time Headway Characteristics and Factors Affecting Tailgating Crashes. 97<sup>th</sup> Annual meeting of Transportation research board, Washington DC, January 2018 (presenter: Hany Hassan).
- 21. Sahnoon, I., Sarhan, M., Hassan, H., Garib, A. & Al-Harthei, H. Impact of Red-Light Enforcement Cameras on Safety Performance at Signalized Intersections in Abu Dhabi, 96<sup>th</sup> Annual meeting of Transportation research board, Washington DC, January 2017 (presenter: Hany Hassan).
- 22. Shaaban, K. and **Hassan, H.** Problems of Underage Driving and Seat Belt Use among High School Teenagers in Qatar, 95<sup>th</sup> Annual Meeting of the Transportation Research Board,

Washington DC, January 2016 (presenter: Hany Hassan).

- 23. **Hassan, H.**, Shawky, M., Garib, A., Al-Harthei, H. Exploring the nature and severity of heavy trucks crashes in Abu Dhabi, 94<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2015 (presenter: Hany Hassan).
- 24. Shaaban, K. and **Hassan, H.** Exploring the Factors Affecting Commuters' Perspectives and Tendency to Use a Proposed Public Transit Service, 94<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2015 (presenter: Hany Hassan).
- 25. **Hassan, H.** Examining the factors associated with the involvement of the Saudi' young drivers in at-fault crashes, 93<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2014 (presenter: Hany Hassan).
- 26. **Hassan, H.** & Al-Faleh, H. Analysis of Risk Factors Affecting the Size and Severity of Traffic Crashes in Riyadh, 92<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2013 (presenter: Hany Hassan).
- 27. **Hassan H**. and Dimitriou, L. Examining Severe traffic crashes in Riyadh using different data mining techniques, World Conference on Transport Research (WCTR), Rio de Janeiro, Brazil, July 2013 (presenter: Hany Hassan)
- 28. **Hassan, H.** and Abdel-Aty, M. Real-time analysis of visibility related crashes: can loop detector and AVI data predict them equally? 91<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2012 (presenter: Hany Hassan)
- 29. **Hassan, H.** and Al-rashidi, Al. Improving traffic safety system of school transportation of Saudi Arabia, 1st international conference of school transportation, Riyadh, October 2012 (presenter: Hany Hassan).
- 30. **Hassan, H.** and Abdel-Aty, M. Developing Saudi Highway safety manual, traffic safety workshop, King Saud University, Saudi Arabia, May 2012 (presenter: Hany Hassan).
- 31. Hassan, H. and Abdel-Aty, M. The Effect of Warning Messages and Variable Speeds in Different Visibility Conditions, 90<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington DC, January 2011 (presenter: Hany Hassan).
- 32. **Hassan, H.** and Abdel-Aty, M. Exploring Visibility Related Crashes on Freeways based On Real-time Traffic Flow Data, 90th Annual Meeting of the Transportation Research Board, Washington DC, January 2011 (presenter: Hany Hassan).
- 33. **Hassan, H.** and Abdel-Aty, M. Design and Administration of a survey to Investigate Drivers' responses to Reduced Visibility Conditions, 9th International Conference on Transport Survey Methods, November 2011 (presenter: Hany Hassan).
- 34. **Hassan, H.** and Abdel-Aty, M. Portable Visibility Warning System for the Safety of Highways, 17th ITS world congress, Busan, Korea, October, 2010 (presenter: Abdel-Aty, M.).
- 35. **Hassan, H.** and Abdel-Aty, M. Portable Visibility Warning System for the Safety and Efficiency of Highways, 18<sup>th</sup> International Conference on Management of Technology, Orlando, April 2009 (presenter: Hany Hassan).

#### **CONFERENCE SESSION CHAIR**

- 1. Lectern session Chair. Lane Change Interactions (session: 2001), Annual meeting of transportation research board, Washington D.C., January 2024.
- 2. Lectern session Chair. Research on Smart Mobility and the Future of Intelligent Transportation Systems (session: 3227), Annual meeting of transportation research board, Washington D.C., January 2024.

- 3. Lectern session Chair. Human Factors of Infrastructure Design and Operations, 102<sup>nd</sup> Annual meeting of transportation research board, Washington D.C., January 2023.
- 4. Lectern session Chair. Environmental and Sustainability in bridge and roadworks. 4<sup>th</sup> International Road Federation Asia-Pacific Regional Congress, Kuala Lumpur, Malaysia, October 2022.
- Poster session chair. Infrastructure Design and Operations: Current Human Factors Perspectives, 100<sup>th</sup> Annual meeting of Transportation research board, Washington D.C., January 2021.
- 6. Lectern session Chair. Connected vehicles applications for development, 99<sup>th</sup> Annual meeting of Transportation research board, Washington D.C., January 2020.

# **TEACHING EXPERIENCE at LSU**

		Instructor Feedback (Hany Hassan)			Course Feedback			
Term	Course Name		Instructor	Dep.	College	Instructor	Dep.	College
Fall 2019	CE 7645	Transportation Systems Analysis	4.56	4.34	4.13	4.33	4.20	3.96
Spring 2020	CE 3600	Principles of Highways and traffic Engineering	4.46	4.30	4.19	4.33	4.16	4.02
Fall 2020	CE 7610	Traffic Engineering Operations and Control	4.30	4.34	4.14	4.06	4.20	4.00
Spring	CE 3600	Principles of Highways and traffic Engineering	4.26	4.20	4.12	4.18	4.09	3.99
2021	CE 7700	Intelligent Transportation Systems	4.55	4.20	4.12	4.06	4.09	3.99
Fall 2021	CE 7645	Transportation Systems Analysis	4.53	4.24	4.12	4.20	4.13	3.96
	CE 3600	Principles of Highways and traffic Engineering	4.02	4.28	4.13	3.96	4.13	3.98
Spring 2022	CE 7600	Transportation Engineering Data Collection Methods	4.73	4.28	4.13	4.38	4.13	3.96
	HNRS 4000	Honor Thesis	5.0	4.7	4.7	5.0	4.4	4.4
Fall	CE 3600	Principles of Highways and traffic Engineering	4.62	4.28	4.16	4.38	4.17	4.01
2022	CE 7700	Intelligent Transportation Systems	4.39	4.28	4.16	4.13	4.17	4.01
Spring 2023	CE 7610	Traffic Engineering Operations and Control	5.0	4.16	4.15	4.78	4.01	3.97
Fall 2023	CE 7645	Transportation Systems Analysis	4.63	4.22	4.17	4.29	4.04	3.99

Teaching evaluations in chronological order (rankings on 5.0 scale).

# New Courses Developed

Designed and developed the teaching materials of an online course titled CE 4600: Geometric Design of Highway and Airport for the online master's degree in transportation engineering at LSU. So far, I have taught the course twice (in summer 2020 "enrollment=2" and summer 2021 "enrollment=1".