29/09/2021

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## **EDUCATIONAL BACKGROUND**

DD/MM/YY

Nagoya University

1/4/2007 -25/3/2010

Doctor of Engineering (Traffic Engineering)

- Advisor: Professor Hideki Nakamura

- Dissertation title: "Modeling Pedestrian Flows At Signalized Crosswalks and Its Applications"

Nagoya University

1/4/2006 — 31/3/2007

Graduate Research Student

University of Jordan

15/9/2003—15/6/2005

M.Sc. in Transportation Engineering

- Advisor: Professor Adli Al-Balbissi

- Thesis title: "Road Accident Prediction Models for Amman, Jordan"

#### An-Najah National University

15/9/1998-16/5/2003

Bachelor in Civil Engineering.

- Advisor: Professor Sameer Abu-Eisheh

Graduation Project title: "Evaluation and Redesign of Faisal Arterial Street in Nablus city, Palestine".

## **WORK EXPERIENCE**

DD/MM/YY

Research Associate Professor Research Assistant Professor 29/04/2020— present 27/10/2015— 28/04/2020

- Qatar Transportation and Traffic Safety Center, College of Engineering, Qatar University,
   State of Qatar
- Coordinator of the National Traffic Safety Training Program at Qatar University

#### International Visiting Faculty

25/06/2017 - 25/08/2017

- Department of Environmental Engineering and Architecture, Nagoya University, Japan

#### Assistant Professor

1/9/2013 — 30/12/2015

- Department of Civil Engineering, King Fahd University for Petroleum and Minerals (KFUPM)

#### Foreign Visiting Faculty

29/5/2015-7/8/2015

- International Center for Urban Safety Engineering (ICUS), Institute of Industrial Science/ University of Tokyo, Japan

Assistant Professor 1/1/2012 — 31/8/2013

- Department of Civil Engineering, An-Najah National University, Palestine

## Foreign Visiting Faculty

5/6/2012 — 25/7/2012

- Department of Civil Engineering , Nagoya University, Japan

#### Postdoctoral Research Fellow (Equivalent to Assistant Professor)

1/4/2010 — 28/12/2011

- Department of Civil Engineering, Nagoya University
- Teaching undergraduate courses, supervising graduate students and managing a national project between Nagoya University and Japan Society for the Promotion of Science JSPS, the title is "Analyzing the effects of Signal Timing and Intersection Geometry on the Stochastic Behavior of Turning Vehicular Traffic and Pedestrians at Signalized Intersections"

### Visiting Researcher

10/7/2010— 10/10/2010

- Technical University of Darmstadt, Darmstadt, Germany

## Part-time, Research Assistant

1/4/2009 — 31/3/2010

- Nagoya University

## Part-time, Site Engineer

1/2/2004 — 31/1/2005

- Al-Bitar Consultants

#### **EXPERTISE**

Traffic safety (Human factors, crash data and causality, driving simulation), Urban traffic control & operation, Road user behavior analysis (including naturalistic driving), Non-motorized traffic especially pedestrians and bicycles (facilities design, control and operation), Intelligent transportation systems (ITS), Travel behavior and forecasting (Macroscopic level), Public transportation, Road geometric design.

## TEACHING EXPERIENCE

# The following courses were taught at undergraduate level:

- **Transportation Engineering (I)** and its Lab: Human, vehicle and road environment interactions, geometric design of horizontal and vertical alignments, pavement design (flexible and rigid).
- Transportation Engineering (II) and its Lab: Traffic control and operation, traffic studies, intersection control and design, signalization, traffic flow theory, bottleneck and capacity concepts.
- **Special Topics in Traffic Engineering:** Advanced and emerging issues related to traffic control and operation, ITS, traffic safety, and sustainable transportation systems.
- Surveying for Construction & Surveying for Architects: Surveying measurements, Vertical Distance Measurements, leveling procedure and computations, profiles and cross sections. Horizontal Distance Measurements (EDM): Taping, Electronic Distance Measurements.

- Angular Measurements, Theodolites and total stations. Traverse Computations and adjustment determination of areas and volumes.
- **Statics:** Basic concepts and principles of mechanics: vector algebra; equilibrium of particles and rigid bodies, moments and couples, beams, trusses, frames, and machines; internal forces; shear and bending moment diagrams in beams; friction and its applications, centroid and center of gravity of lines areas, and volumes; moment of inertia and radius of gyration.
- Strength of Materials: Brief description of the content of the course (catalog description): External forces and concept of stress. Stresses and strains, axial loading and axial deformation, Hook's law, statically indeterminate members, Stresses due to temperature. Torsion. Internal forces in beams, pure bending. Transverse loading and shear stresses in beams and thin-walled pressure vessels. Multiaxial loading. Transformation of stresses and strains. Principal stresses and strains. Axially compressed members and buckling of columns. Lab session and experiments.

## The following courses were taught at graduate level:

- Advanced Traffic Engineering: Breakdown and bottleneck analysis, capacity and LOS, traffic design of road intersections, road signing and road markings, design of car parks.
- **Highway Capacity Analysis**: Covers capacity analysis of all highways and intersections; design and analysis of traffic signals including warrants, cycle length, timing, phasing and coordination; fundamentals and hand-on application of existing tools and software, and laboratory assignment are included.
- **Urban Transportation Planning/Modeling**: Covers transportation planning processes, transportation land-use interaction, travel evaluation and demand estimation, traffic generation theories and assignment models, and transit analysis.
- Traffic Safety Analysis: This course addresses the concepts for performing traffic safety analyses, crash data collection and database management, crash data analysis, road safety audits (RSA), identifying safety deficiencies and countermeasures, before-after studies, traffic conflicts, and crash reduction factors.
- **Geometric Design of Highways:** This course covers the theory and application of street, highway, and intersection design. It also provides an overview of geometric design concepts including functional classification of highways, horizontal and vertical alignment design, cross-section elements, intersection design, design of auxiliary lanes, and access management and control.

#### Supervision of Graduate Projects:

Dr. Alhajyaseen supervised/co-supervised graduation projects of many undergraduate students (senior design projects) and graduation thesis of several graduate students. Some of graduate works are listed below:

- PhD thesis committee member and examination Committee member: Nora Reinolsmann, "Design and implementation strategies of Intelligent Transportation Systems on expressways: tactical and strategic approaches to influence driver behavior", Hasselt University, Completed in Nov 2020.
- **PhD thesis committee member and examination Committee member:** Qinaat Hussain, "Evaluating the traffic safety and efficiency of different innovative countermeasures on urban roads using driving simulation", Hasselt University, completed in Nov 2020.
- Main Advisor Master thesis: Mustafa Almallah, "Development of Variable Message Sings Strategies for Traffic Management at Work Zones", April 2020.
- Main Advisor Master thesis: Naeem Albeitjali, "Analysis of the Capacity of Single Lane Roundabout Considering Local Driver Behaviour in the State of Qatar", April 2020.

- **Main Advisor** Master thesis: Abdelrahman Abuhejleh, "Examining the Preference for Autonomous Vehicle (AV) among Residents in the State of Qatar", November 2019.
- **Co-advisor** Master thesis: Moath Qasem, "Heavy Metal Concentrations in Roadside Soils in Qatar", May 2019.
- Main Advisor Master thesis: Muath Najjar, "The Effectiveness of Applying Dynamic Lane Assignment at All Approaches of Signalized Intersections". May, 2015.
- **Co-advisor** Master thesis: Mohammed Al-Turki, "Laboratory Evaluation of Local Dense Graded GRM Asphalt Mixture", May 2015.
- **Co-advisor** Master thesis: Md. Ahsan Habib, "Eco-friendly Modification of Gulf Asphalt by Using Recycled Plastic Waste", November 2015.

## **COMMITTEES AND PUBLIC SERVICE**

Center, Qatar University, member

CON	MMITTEES AND PUBLIC SERVICE	
-	<b>Expert Advisory Committee,</b> i-Dreams project, European Union's Horizon 2020 research and innovation programme.	May 2019-May 2022
-	National study Supervisory Committee, study title "The Future of Public Transportation Projects and its Role in Mitigating Congestion and Crashes during Fifa World Cup 2022", the study is conducted by Ministry of Interior, General Traffic Department, State of Qatar.	2019-Present
-	<b>National Traffic Safety Curriculum Committee,</b> formed by the Ministry of Interior of the State of Qatar, representing Qatar University.	2019 – Present
-	Advisor Board of the Police Training Institute, representing Qatar University.	2018 – Present
-	<b>Traffic Congestion Working Group (Standing),</b> formed by the National Traffic Safety committee of the State of Qatar, nominated member representing Qatar University.	2018 – Present
-	National Traffic Safety Strategy Stakeholders Coordinators Committee (Standing), formed by the National Traffic Safety committee of the State of Qatar, nominated member representing Qatar University.	2016 – Present
-	<b>Speed Management Working Group (Standing)</b> , formed by the National Traffic Safety committee of the State of Qatar, nominated member representing Qatar University.	2016 – Present
-	<b>Pedestrian Safety Working Group (Standing),</b> formed by the National Traffic Safety committee of the State of Qatar, nominated member representing Qatar University.	2016 – Present
-	<b>Departments &amp; Centers Integration Committee</b> , Qatar University, College of Engineering, member	FebApr., 2016
-	<b>Traffic Safety Educational Curriculum Evaluation Committee,</b> Qatar University, College of Engineering, member	MarJun., 2016
-	<b>Traffic Safety Training Program Committee (Standing),</b> Qatar Transportation and Traffic Safety Center, Qatar University, Chair	Feb. 2016 – Present
-	<b>Technical Committee of the National Traffic Safety Conference (Standing),</b> Qatar Transportation and Traffic Safety Center, Qatar University, member	Feb. 2016 – 2018
-	Hiring Committee (Standing), Qatar Transportation and Traffic Safety	Feb. 2016 -

Present

-	<b>Consultation Projects Committee (Standing),</b> Qatar Transportation and Traffic Safety Center, Qatar University, member	Feb. 2016 – Present
-	<b>Driving Simulator Laboratory Establishment Committee (Ad hoc),</b> Qatar Transportation and Traffic Safety Center, Qatar University, Chair	Feb. 2016 – Dec. 2017
-	<b>University Level Traffic Safety Committee (Standing Committee),</b> King Fahd University of Petroleum and Minerals, KSA, nominated member	2013 – 2016
-	ABET Program Assessment Committee(Standing Committee), member at King Fahd University of Petroleum and Minerals, KSA at An-najah National University, Palestine	2013 - 2016 2012 - 2013
-	Civil & Environmental Engineering Department Planning Committee (Standing Committee), King Fahd University of Petroleum and Minerals, KSA, Chair	2014 - 2015
-	<b>Graduate Program</b> Committee ( <b>Standing Committee</b> ), King Fahd University of Petroleum and Minerals, KSA, member	2013 – 2015
-	<b>Text Book Committee (Standing Committee),</b> King Fahd University of Petroleum and Minerals, KSA, member	2013 – 2014
-	<b>Laboratory Committee (Standing Committee),</b> King Fahd University of Petroleum and Minerals, KSA, member	2013 – 2014
-	<b>Research Activities Committee (Standing Committee),</b> An-najah National University, Palestine, member	2012 – 2013

# **EVENT ORGANIZATION**

- (1) 2nd International Traffic Safety Conference, from 21-22 Mar. 2022, Qatar University. Chair of the Scientific Committee.
- (2) International Online Training Program entitled "Introduction to Road Safety Audits".

  Organized in collaboration with the International Road Federation, Work Conference on Transport Research Society, held between 9-11 Oct. 2021.
- (3) International Online Training Program entitled "Role of Road Safety Audits in Improving Traffic Safety". Organized in collaboration with the International Road Federation, Work Conference on Transport Research Society, Qatar National Traffic Safety Committee, more than 450 attendees from more than 50 different countries, held between 8-10 Nov. 2020.
- (4) Customized online Training Program entitled "Work Zone Safety Management" organized for Public Works Authority( Ashghal), held between 28 Nov. and 6 Dec. 2020.
- (5) International Online Workshop entitled "Global Trends on the Status of Traffic Safety Under the Covid-19 Pandemic". Organized in collaboration with National Traffic Safety committee of Qatar, International Road Federation, World conference on Transport Research Society. 230 attendees from more than 45 countries, held on 29<sup>th</sup> September 2020. https://irfnet.ch/event/training-on-advanced-road-safety-audits/
- (6) International Conference on Civil Infrastructure and Construction, 2-5 February 2020, Qatar University, Member of the Scientific Committee.

- (7) Professional Training Workshop entitled "Road Traffic Safety Management", 19<sup>th</sup> 21<sup>st</sup>
  November 2019, Qatar University, Qatar
- (8) International Workshop in collaboration with the Supreme Committee for Delivery and Legacy, entitled "Crowd Dynamics, Management, and Control", held at Qatar University on November 20<sup>th</sup> 2019.
- (9) Technical workshop "VEHICLE RESTRAINT SYSTEMS (VRS)" held at Qatar University on October 22th 2019.
- (10) Professional Training Workshop entitled "Traffic Safety in Work Zone", 24<sup>th</sup>-26<sup>th</sup> September 2019, Qatar University, Qatar
- (11) 15<sup>th</sup> World Conference on Transportation Research (WCTR), from 26<sup>th</sup>-30<sup>th</sup> May 2019, IIT Bombay India, Member of the scientific committee and co-chair of the Traffic Safety Analysis & Policy Track.
- (12) Professional Training Workshop in Traffic Safety entitled "Safe Urban Street Design for Vulnerable Road User" from 4<sup>th</sup> 6<sup>th</sup> December 2018, Qatar Universality, Qatar.
- (13) International Traffic Safety Conference ITSC 2018, 26-27 November 2018, Sheraton Hotel, Doha, Qatar, Member of the Scientific Committee
- (14) National Workshop entitled "Pedestrian Safety: Achievements and Challenges", 6<sup>th</sup> November 2018, Qatar University, Qatar
- (15) Professional Training Workshop in Traffic Safety entitled "Introduction to Road Safety Audits" from 23rd 26<sup>th</sup> September 2018, Qatar Universality, Qatar.
- (16) National Forum entitled "Traffic Safety Research Outcomes Exchange Forum", 11<sup>th</sup> of December 2017, Qatar University, Qatar
- (17) Road Safety & Simulation International Conference RSS2017, member of the scientific committee, 17<sup>th</sup>-19<sup>th</sup> October 2017, Delft University of Technology, The Netherlands.
- (18) Professional Training Workshop in Traffic Safety entitled "Vulnerable Road User Safety" from 24<sup>th</sup> 26<sup>th</sup> September 2017, Qatar Universality, Qatar.
- (19) International Workshop on "Road Freight Transport and Safety", 8<sup>th</sup>-9<sup>th</sup> May 2017, InterContinental Doha, Qatar.
- (20) Professional Training Workshop in Traffic Safety entitled "Road Safety Audit" from 3<sup>rd</sup> 6<sup>th</sup> April 2017, Qatar Universality, Qatar.
- (21) International Forum on "Traffic Safety and Sustainable Transport Systems", 13<sup>th</sup>-14<sup>th</sup> December 2016, the Ritz-Carlton Doha, Qatar.
- Professional Training Workshop in Traffic Safety entitled "Road Safety Management" from 12<sup>th</sup> 14<sup>th</sup> December 2016, Qatar Universality, Qatar
- (23) Professional Training Workshop in Traffic Safety entitled "Introduction to Post-Crash Investigation" from  $5^{th} 7^{th}$  December 2016, Qatar Universality, Qatar
- Professional Training Workshop in Traffic Safety entitled "Work Zone Safety" from 13<sup>th</sup>
   14<sup>th</sup> November 2016, Qatar Universality, Qatar.
- Professional Training Workshop in Traffic Safety entitled "Speed Enforcement and Automated Enforcement Technologies" from 7<sup>th</sup> 9<sup>th</sup> November 2016, Qatar Universality, Qatar.

- (26) Professional Training Workshop in Traffic Safety entitled "Global Road Safety: Public Health Trends, Road Safety Strategies and Policy Actions" from 3<sup>rd</sup> 5<sup>th</sup> October 2016, Qatar Universality, Qatar
- (27) Professional Training Workshop in Traffic Safety entitled "Roadside and Median Safety" from 25<sup>th</sup> 26<sup>th</sup> September 2016, Qatar Universality, Qatar.
- (28) International Workshop on "Practices on Technologies, Systems and Culture related to Traffic Safety", 22<sup>nd</sup> September 2016, Qatar University, Qatar
- (29) Professional Training Workshop in Traffic Safety entitled "Road Safety Audit" from 24<sup>th</sup>
   26<sup>th</sup> May 2016, Qatar Universality, Qatar.
- (30) National Workshop entitled "Training on Defensive Driving", 16<sup>th</sup> May 2016, Qatar University, Qatar.

## COMPUTER SKILLS

- (1) Design-software: AutoCAD, Civil 3D, HCS.
- (2) Microscopic Simulation softwares: VISIM, Paramics, Synchro/SimTraffic, and AIMSUM.
- (3) Statistical software: SPSS, and STATA.
- (4) Programming: Fortran & C++.

## MAJOR CONSULTANCEY EXPERIENCE

- (1) Qatar University Campus Traffic Impact Study, on-going since Apr. 2018.
- (2) Qatar University Campus Road Traffic Assessment Status Quo Report, Dec. 2018.
- (3) Traffic Impact Study and Safety Audit to Katara Cultural Village. Katara Project, Doha Qatar. Apr. 2016 to Nov. 2018.
- (4) Traffic Impact and Safety Study of Ring Residential Project in Dammam. Maban Real Estate Investment & Emaar Properties. Jul. 2015 to Jun. 2016. Budget is 230,000 SR.
- (5) Traffic Impact and Safety Study of Akwan Residential Project in Dammam. Maban Real Estate Investment & Emaar Properties. Mar. to Sep. 2015. Budget is 170,000 SR.
- (6) Consultancy services for several project inside the KFUPM campus was provided (as a member of the Traffic Safety Standing Committee of King Fahd University,). This includes improvements in geometric layout of several un-signalized intersections for safe pedestrian and vehicle movements, the installation of traffic control devices TCD for safe and efficient operation of indoor parking facilities, and the design of outdoor parking facilities for the boys/girls elementary, secondary and high schools considering the traffic management and circulation in the surrounding network.
- (7) Nablus-city Municipality, road design and traffic control and management consultant for the period 2012-2013
- (8) Worked as a transportation professional for the project "Consultancy assignment for Developing Physical and Strategic Plans in Jorat Alsham'a Cluster (South West Bank)". Belgian Development Agency BTC, Municipal Development and Lending Fund MDLF and PALMEC International for Consultancy and Development (2012-2013).

(9) Worked as a transportation professional for the project "Consultancy assignment for Developing Physical and Strategic Plans in Al-karmel Cluster (South West Bank)". Belgian Development Agency BTC, Municipal Development and Lending Fund MDLF and PALMEC International for Consultancy and Development (2012-2013).

# **RESEARCH PROJECTS**

## Funded Projects:

- (1) Alhajyaseen W. (*Lead Principle Investigator*), Asma Al-Attiyah, Soliman A., Dias C., Kharbeche M., and Tarlochan F. (2021) "Maladaptive driving styles among professional drivers in the State of Qatar Educate driving instructors to help professional drivers to cope with aggression and anger in provoking situations". Qatar University Internal Grants, Collaborative Grant, ID 292, total budget 300K QAR. (Awarded in Jan 2021)
- Tahmasseby S., Alhajyaseen W. (*Principle Investigator*), Kattan L., and Aalami S. "Development of a Mobility-as-a-Service (MaaS) Ecosystem with Qatar's Context". Funded by Qatar National Research Fund under the National Priority Research Program 13th Cycle, NPRP13S-0130-200211, budget of 580,000 US\$. (Awarded in Jan 2021).
- (3) Alhajyaseen W. (*Lead Principle Investigator*), Dias C., Halabi O., Iryo-Asano M., and Nakamura H. "Development of Innovative Measures for Improving Pedestrian Safety Considering the Presence of Autonomous Vehicles". Qatar-Japan Research Collaboration Fund, ID234, total budget 150,000 US\$. (Awarded on December 2019)
- (4) Alhajyaseen W. (*Lead Principle Investigator*). "Enhancing pedestrian safety through the development of advanced operational strategies for crosswalks in residential areas". Undergraduate Research Experience Program, UREP25-031-2-017, total budget of 15,000 US\$. (Active since Feb. 2020)
- (5) Nakamura H., Alhajyaseen W. (*Principle Investigator*), and others. "Global Research Alliance on Traffic and Safety (GRATS)". Funded by the International Association of Traffic and Safety Sciences IATSS. (Active April 2019 to March 2022).
- (6) Alhajyaseen W. (*Lead Principle Investigator*), Abdrabo S., Eldeeb A., Brijs T., and Veerle R. "Development of innovative driving instructor modules to enhance safe driving behavior and autonomy in people with high-functioning Autism Spectrum Disorder (ASD)". Funded by Qatar National Research Fund under the National Priority Research Program 11th Cycle, NPRP11S-1228-170143, budget of 600,000 US\$. (Active June 2019-June 2022).
- (7) Alhajyaseen W. (*Lead Principle Investigator*). "Developing innovative speed calming countermeasures via pavement marking for the speed management at rural-urban transition road segments using a driving simulator". Undergraduate Research Experience Program, UREP23-026-2-011, total budget of 14,988 US\$. (Completed Jan 2019 Jan 2020).
- (8) Kucukvar M., Alhajyaseen W. (*Principle Investigator*), and Onat N. (2018). "Life Cycle Sustainability Assessment Model for Qatar LNG Production". Undergraduate Research Experience Program, UREP22-045-2-016, total budget of 26,700 US\$. (Completed Sep 2018 to Aug 2019).
- (9) Al-Maadeed S., Alhajyaseen W. (*Principle Investigator*), and others. (2018). "Smart Assistive Tools for Visually Impaired People". High Impact Internal grant funded by

Qatar University, QUHI-CENG-2018\2019-1, January 2018 to January 2020, total budget of 160,000 US\$.

- (10) Alhajyaseen W. (Lead Principal Investigator), Brijs T., and Hermans E. "Modeling the Impacts of Different Variable Message Sign Strategies on Driver Behavior using Driving Simulations". Funded by the Qatar National Research Fund under the National Priority Research Program, NPRP9-360-2-150, January 2017 to April 2020, total budget of 650,000 US\$.
- (11) Al-Khalifa K., Alhajyaseen W. (*Principle Investigator*), Kharbeche M., Jafari M., and Sayed T. "Modeling and Simulation of Road Safety and Traffic System in the State of Qatar". Funded by the Qatar National Research Fund under the National Priority Research Program, NPRP8-910-2-387, total budget of 801,000 US\$. (Completed May 2016 to Apr 2019).
- (12) Nakamura H., Yoshida N., Suzuki K., Alhajyaseen (*Principle Investigator*), Shawky M., and Tang. K. "International Survey on Traffic Safety Status and Influencing Factors". Funded by the International Association of Traffic and Safety Sciences IATSS, 1601A/1701B/1801C, May 2016 to March 2019.
- (13) Aldosary, A. S., Gim T. H., Nahiduzzaman K. M., and Alhajyaseen, W. K. (*Principle Investigator*) "A sample test for the Saudi NHTS (National Household Travel Survey): demonstration in Riyadh". Funded by the National Science, Technology and Innovation Plan NSTIP, Strategic Technology Program, Kingdom of Saudi Arabia, December 2015 to November 2017, total budget is 522,191 US\$.
- Iryo-Asano, M., Alhajyaseen W. (*Principle Investigator*), and others. "Microscopic traffic theory for safe and efficient intersection design". Funded by Japan Society for the Promotion of Science, Grant-in-Aid for Young Scientist (A), Project ID 15H05534, April 2015 to March 2019, total budget is 72,000 US\$.
- Alhajyaseen, W.K. (*Lead Principal Investigator*), El-Alfy, W.M., and Iryo-Asano, M. "Analysis and Predictive Modeling of the Stochastic Pedestrian Behavior Patterns at Signalized Intersections for Safer Intersection Design and Control". Funded by the Deanship of Scientific Research (DSR) at King Fahd University of Petroleum & Minerals (KFUPM), Project Number IN141020, March 2015 to September 2017, total budget is 61,895 US\$.
- (16) Alhajyaseen, W. (*Lead Principal Investigator*). "The development of New Index for the Safety Assessment of Intersections Based on Kinetic Energy". Funded by the Deanship of Scientific Research (DSR) at King Fahd University of Petroleum & Minerals (KFUPM), Project Number IN131003, 2013-2014, total budget is 16,696 US\$.
- Alhajyaseen, W.K. (*Lead Principal Investigator*), Ratrout, N.T., and El-Alfy, E.M., "Development of Demand Responsive Dynamic Lane Assignment Strategy for Signalized Intersections", Funded by the Deanship of Scientific Research (DSR) at King Fahd University of Petroleum & Minerals (KFUPM), Project Number IN131009, 2013-2015, total budget: 388,190 US\$.
- (18) Nakamura H., Alhajyaseen W. (*Principle Investigator*) and others. Developing a Nanoscopic Simulation Model for the Safety Assessment of Signalized Intersections. The project is between Nagoya University and Takata Foundation (2009~2011). The final report is submitted on 30th of March 2011.

#### **Unfunded Project Proposals:**

- (1) Alhajyaseen W (*Lead Principal Investigator*), Renno J., Kharbache M., Li M., Ouyang Y., and Liu H. (2019). "High Density Crowd Management: Smart Detection and Optimal Facility Design". Submitted the Qatar National Research Fund under the National Priority Research Program 12th Cycle, 2019, NPRP12S-0303-190206, budget of 600,000 US\$.
- (2) Abdel Magid H., Alhajyaseen W. (*Principle Investigator*), Onat N., Kochan B., Adnan. M., and Bellemans T. "Development of an Innovative Platform for the Assessment of Mobility based Behavioral Interventions on Life styles and Quality of Life in the State of Qatar". Submitted the Qatar National Research Fund under the National Priority Research Program 12th Cycle, 2019, NPRP12S-0302-190196, budget of 600,000 US\$.
- (3) Al-Ghanim K., Abdrabo S., Hamad S., and Alhajyaseen W. (*Principle Investigator*). (2018) "Improving Road Safety through Behavioral Insights: The Problem of Reckless Young Drivers in Qatar". Submitted the Qatar National Research Fund under the National Priority Research Program 9th Cycle, NPRP10-0115-170167, budget of 655 K US\$.
- Elomari A., Alhajyaseen W. (*Principle Investigator*), Temimi A., Pokharel S., and Benjaafar S. (2016). "The Peer-to-Peer Sharing Economy: Models, Analysis, and Experiments with application to Shared Mobility in Qatar". Submitted the Qatar National Research Fund under the National Priority Research Program 9th Cycle, NPRP9-118-2-057, budget of 803 K US\$.

## **INDUTRIAL FUNDS**

DD/MM/YY

- (1) Research Agreement with Khatib&Alami Consultation Company, Dec. 2018-Dec.2023, 100,000 US\$. (Lead Principal Investigator)
- (2) Research Agreement with TechnoLab Company, Jan. 2019-Dec.2021, 66,640 US\$. (Lead Principal Investigator) –In preparation-

# **MEMBERSHIPS / PROFESSIONAL COMMITTEES**

DD/MM/YY

#### Editorial Board of Scientific Journals

(1) Member of the Editorial Board of International Journal of Injury Control and Safety Promotion, since Jan 2020.

 $\underline{https://www.tandfonline.com/action/journalInformation?show=editorialBoard\&journalCode=nics20}$ 

#### International Societies

- (1) Chair of the SIG C4 "Traffic Safety Analysis and Policy", World Conference on Transportation Research Society (WCTRS), since January 2017.
- (2) Chair of Membership Management Sub-Committee for Middle East, Russia and other countries: the World Conference on Transportation Research Society (WCTRS), since Jan. 2018
- (3) Associate Member of the Independent Council for Road Safety International (ICORSI). Since October 2019. https://www.icorsi.org/associate-members

- (4) Associate Member of the International Association of Traffic and Safety Sciences IATSS, since Mar. 2020.
- (5) Member of the Urban Traffic Operations Special Interest Group (SIG) C2 of the World Conference on Transportation Research Society (WCTRS), since 2011
- (6) Member of the Eastern Asia Society for Transportation Studies (EASTS), since 2009
- (7) Friend of the Pedestrian Committee, ANF10, Transportation Research Board (TRB)

#### **Domestic Societies**

- (5) Member of Japan Society of Civil Engineers (JSCE), since 2007
- (6) Member of Engineering Association Jerusalem Center, since 2003
- (7) Jordan Engineers Association, since 2003

PROFESSIONAL TRAINING BACKGROUND	DD/MM/YY
Qatar Transportation and Traffic Safety Center, Qatar University	24/5/2016—26/5/2016
Road Safety Audits Course (Certified by International Road Federation)	
King Fahd University for Petroleum and Minerals	23/2/2014—24/2/2014
Training workshop on VISSIM microscopic traffic simulation and planning software.	
King Fahd University for Petroleum and Minerals	11/9/2013
Getting Started with Blackboard 9.1	
Nagoya University	1/4/2006 — 5/9/2006
Special Intensive Course in Japanese Language	
Engineering Association – Jerusalem Center	10/4/2003 — 20/6/2003
AUTOCADE 2D training Course	
Engineering Association – Jerusalem Center	2/11/2001 — 6/3/2002
Structures Seismic Design Course	

## LANGUAGE PROFICIENCY

Arabic Native language.

English Speaking, Writing and Reading: Native level (TOEFL)

Japanese Speaking: Fluent, Writing & Reading: Intermediate level.

French Speaking: Basic level.

## **AWARDS**

- (1) **Best Poster Award** for the category of Faculty & Postdocs in Qatar University Annual Research Forum, 2th of October 2020.
- (2) **Best Poster Award** for the category of Graduate Students in Qatar University Annual Research Forum, 2th of October 2020.
- (3) Excellence in Research Award for the Academic Year 2018/2019, College of Engineering, Qatar University, 22<sup>nd</sup> of May 2019.

- (4) **Best Track Paper Award, Transportation and Traffic,** the International Conference on Industrial Engineering and Operations Management, Washington DC, USA, Sep. 27-29, 2018.
- (5) **Best Track Paper Award, Transportation and Traffic,** the 7th International Conference on Industrial Engineering and Operations Management, Rabat, Morocco, April 11-13, 2017.
- (6) **Distinguished Presentation Certificate,** International Seminar on Leading Research of Road Intersections, University of Tokyo, Japan, June 30, 2015.
- (7) Outstanding "A+" Teaching and Research Performance Certificate for the academic year 2014/2015, King Fahd University of Petroleum and Minerals, Kingdom of Saudi Arabia.
- (8) Outstanding "A+" Teaching and Research Performance Certificate for the academic year 2013/2014, King Fahd University of Petroleum and Minerals, Kingdom of Saudi Arabia.
- (9) **EXCELLENCE IN TEACHING AWARD** for the academic year 2012/2013, An-najah National University, Palestine.
- (10) **BEST PAPER AWARD** in the 32nd Annual Meeting of Japan Society of Traffic Engineers JSTE, Tokyo, JAPAN, September 2012.
- (11) OUTSTANDING POSTER PRESENTATION AWARD in the 9th Eastern Asia Society for Transportation Engineering Studies EASTS international conference, Jeju, Korea, June 2011.
- YASOSHIMA YOSHINOSUKE PRIZE to the academic and/or practical contribution for realizing better mobility in Eastern Asia Region and the World. The 8th Eastern Asia Society for Transportation Engineering Studies EASTS international conference, Surabaya, INDONESIA, November 2009.
- OUTSTANDING PRESENTATION AWARD in the 8th Eastern Asia Society for Transportation Engineering Studies EASTS international conference, Surabaya, INDONESIA, November 2009.
- (14) CERTIFICATE OF EXCELLENCE FOR DISTINGUISHED PRESENTATION, 11th International Summer Symposium of Japan Society of Civil Engineers, Tokyo, JAPAN, September 2009.
- (15) **JAPANESE GOVERNMENT SCOLARSHIP** to pursue the doctor degree at Nagoya University, Japan, 2006-2010

# **INVITED LECTURES / PRESENTATIONS**

- (1) Correlation between Driver Socioeconomic Characteristics and their Safety Perception. Invited presentation at the Annual Project Meeting of the International Association of Traffic and Safety Sciences (IATSS) Project "Global Research Alliance on Traffic and Safety (GRATS)", 12 November 2019, UCL, UK.
- (2) Smart Transport: Testing of Driving Behavior and Innovative Road Designs and Signage using Driving Simulation. Invited keynote presentation delivered during the

Centenary International Engineering Congress which was held at Qatar University on 26th of September 2019.

- (3) Traffic Safety Culture among Professional Drivers in the State of Qatar. Invited presentation at the Special Session organized by the International Association of Traffic and Safety Sciences (IATSS) during the 15<sup>th</sup> WCTR Conference, 26-30 May 2019, IIT Bombay, India.
- (4) Panelist in the Special Session entitled "Systematic Reviews and Evidence Gap Maps for Traffic Safety" that is organized by the Independent Council for Road Safety International, Campbell Collaboration & TRIPP IIT Delhi, during the 15<sup>th</sup> WCTR Conference, 26-30 May 2019, IIT Bombay, India.
- (5) Acceptance of Risky Driving among Sub-cultures within a Heterogeneous Driving Population. Invited presentation at the International Workshop organized by VIAS Institute and IATSS in Brussels, Belgium 28<sup>th</sup> of March 2019.
- (6) Traffic Safety and the Youth. Invited speaker and moderator of two panel discussion sessions in the "National Workshop on Effective Actions on Accident Prevention to Mitigate Number of Qatar Road Accidents" organized by Mowasalat and the International Road Transport Union and held on 10th 11th Oct. 2018 at the Traffic Department, Doha, Qatar.
- (7) Traffic Safety Culture in the State of Qatar. Invited keynote presentation by International Association of Traffic and Safety Sciences (IATSS) during the 4th Global Interactive Forum on Traffic and Safety (GIFTS) at the University of United Nations, Tokyo, Japan, 31st of Oct. 1st of Nov. 2018.
- (8) Variable Message Sign Strategies to Accommodate the Heterogeneous Driving Population. Presenter and moderator of the "Traffic Safety" Session in the International Traffic Safety Conference ITSC 2018 which was organized by Qatar Transportation and Traffic Safety Center and the National Traffic Safety Committee and held in the period between 26-27 of Nov. 2018 at Sheraton Hotel, Doha, Qatar.
- (9) Moderator of the "Pedestrian Safety Workshop" organized by Qatar Transportation and Traffic Safety Center on the 6th of Nov. 2018 at Qatar University.
- (10) Smart Transport: Testing of Driving Behavior and Innovative Road Designs and Signage using Driving Simulation. Invited presentation at the 5<sup>th</sup> QIC Innovation Breakfast, Organized by Qatar University and the , March 11<sup>th</sup> 2018.
- (11) Status of Vulnerable Road Users Safety in the State of Qatar. Keynote presentation at the Joint Seminar on Vulnerable Road users Safety organized by Nagoya Institute of Technology, Japan, March 7th 2018.
- (12) Development and Testing of Innovative Variable Message Signs using Driving Simulator. Invited Lecture by Nagoya Institute of Technology, Japan, March 6th 2018.
- (13) Traffic Safety Status in Fast Developing Arab Gulf Countries; the Case of the State of Qatar. Invited Guest Speaker at the International Research Seminar on Traffic Safety organized by Nagoya Institute of Technology, Japan, August 21st 2017.
- The Role of Traffic Safety on the Path to Sustainable Transport for Qatar. Invited Lecture by the Transportation Research Institute of Hasselt University in Belgium, October 13th, 2017.
- (15) Traffic Safety Status in Fast Developing Arab Gulf Countries; the Case of Qatar. Invited Keynote Speaker at the INCO 2017 "International Networking

- Conference on Transportation in the South" organized by Hasselt University, October 11th, 2017.
- (16) Research on Traffic Safety Culture in the State of Qatar. Invited presentation at the annual meeting of the International Association of Traffic and Safety Sciences, July 31 st, 2017.
- On the Path to Sustainable Transport in the State of Qatar. International forum on "Traffic Safety and Sustainable Transport Systems", Doha, Qatar, 12<sup>th</sup> of December 2016.
- (18) Status of Traffic Safety Education and Culture in the State of Qatar, Influencing Factors and Challenges. Invited key presentation by International Association of Traffic and Safety Sciences (IATSS) during the 2nd Global Interactive Forum on Traffic and Safety (GIFTS) at the University of United Nations, Tokyo, Japan, 18 of November 2016.
- (19) Introduction to Road Safety Engineering. Invited technical presentation by Qatar Transportation and Traffic Safety Center and Qatar Society of Engineers, Doha, Qatar, 19 January, 2016.
- (20) A Study on Crossing Speed Profiles of Pedestrians at Signalized Crosswalks. Guest Speaker at the 24th World International Traffic Medicine Association (ITMA) Conference, Doha, Qatar, to be held between 16-18 November 2015.
- The Optimization of Time-Space Resources at Signalized Intersections. International Seminar on Leading Research of Road Intersections, University of Tokyo, Japan, June 30, 2015.
- Pedestrian Safety at Signalized Intersections; analysis and modeling. The 4<sup>th</sup> Annual Meeting of the WCTR Special Interest Group C2 "Urban Transport Operations" and C3 "Intelligent Transport Systems" held at the Queensland University of Technology, Brisbane, Australia from 18<sup>th</sup> 20<sup>th</sup> November 2014.
- The role of transportation engineers in the modern societies. King Fahd University for Petroleum and Minerals, Civil Engineering & Environmental Department, CE312, Building 3 / Room 202, March 5, 2014.
- Assessing the Safety of Signalized Intersections by Simulating User Behavior Considering the Effects of Intersection Geometry. Summer Intensive program of Nagoya University in Automobile Engineering (NUSIP), July 19, 2011.
- Production, Logistics and Traffic: Scheduling of Commercial Traffic in Urban Road Networks Based on Travel Times. Technical University of Darmstadt, Darmstadt, Germany, February 15, 2011.

#### LIST OF ATTENDED SEMINARS / WORKSHOPS / FORUMS

- (1) Symposium entitled "Together We Learn, Together We Teach", organized by Center for Excellence in Teaching and Learning (CETL) at Qatar University, Online, 4<sup>th</sup> Jun 2020.
- (2) Workshop entitled "21st Century Learning for Engaging Millennials", organized by the college of Engineering and Strategic Initiatives Office of Qatar University, Online, 13<sup>th</sup>-16<sup>th</sup> Mar. 2020.

- (3) Seminar entitled "Understanding Learning Styles and Multiple Intelligences", organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 27<sup>th</sup> Feb. 2020.
- (4) Seminar entitled "Innovation and the Future of Work", organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 20<sup>th</sup> Feb. 2020.
- (5) Expert Advisory Board Workshop for i-Dreams Project funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 814761. 12<sup>th</sup> December 2019.
- (6) Workshop entitled "21st Century Learning for Engaging Millennials", organized by the college of Engineering of Qatar University, Bog, F106, 19<sup>th</sup>-20<sup>th</sup> Mar. 2019.
- (7) Seminar entitled "Avoiding PowerPointlessness: How to Use PowerPoint Effectively in Teaching", organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 12<sup>th</sup> Mar. 2019.
- (8) Seminar entitled "Effective Classroom Dynamics: Motivation, Behavior, Attendance and Success", organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 11<sup>th</sup> Mar. 2019.
- (9) Seminar entitled "Avoiding the Perils of "Profsplaining"", organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 13<sup>th</sup> of Feb. 2019.
- (10) Workshop entitled "Intellectual Property, Technology Transfer and Commercialization" organized by the college of Engineering of Qatar University, Bo9, F106, 2<sup>nd</sup> Feb. 2019.
- (11) Seminar entitled "Integrate Live Audience Surveys into PowerPoint or Keynote Presentations to Create Interactive-Learning Experiences" organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 26 Sep. 2018.
- (12) Seminar entitled "Finding and Using On-Line Resources to Facilitate Teaching and Learning" organized by the Office of Faculty and Instructional Development (OFID) at Qatar University, 14 Nov. 2018.
- (13) 6<sup>th</sup> Forum of the Stakeholders Coordinators of the National Traffic Safety Strategy organized by the National Traffic Safety Committee of the State of Qatar, InterContinental Doha the City, May 14<sup>th</sup>, 2018.
- Workshop entitled "Learner-Centered Teaching (PBL in particular)" by Prof. Xiangyun Du, 8th OFID Day Program, Qatar University, November 13, 2017.
- (15) Training Workshop entitled "Simulator Technical Training and Scenario Development" by Engineering Solutions, held at Qatar University, October 31<sup>st</sup> November 1st, 2017.
- (16) Training Workshop entitled "Survey-Based Experiments" by the Social and Economic Survey Research Institute (SESRI) of Qatar University and Institute for Social Research (University of Michigan), held at Qatar University, April 16<sup>th</sup>-20<sup>th</sup>, 2017.
- (17) Workshop entitled "Approaches to Developing and Implementing Learner-Centered Pedagogy" by Prof. Xiangyun Du, 8th OFID Day Program, Qatar University, January 17, 2017.
- التأكد من صدق الاختبارات وثباتها والاستفادة من البيانات في تحسين " Workshop entitled " الاداء by Dr. Mahmoud Hasan, 8th OFID Day Program, Qatar University, January 17, 2017.

- (19) Workshop entitled "Assessing students work and giving them feedback" organized by Deanship of Academic Development, KFUPM, held in Building 20 of KFUPM on Aug. 11th 2015.
- (20) Workshop entitled "Assessing students work and giving them feedback" organized by Deanship of Academic Development, KFUPM, held in Building 20 of KFUPM on Aug. 11th 2015.
- (21) Workshop entitled "Mobile Technology for Modern Classrooms" organized by Deanship of Academic Development, KFUPM, held in Building 20 of KFUPM on Aug. 10th 2015.
- The 4<sup>th</sup> Annual Meeting of the WCTR Special Interest Group C2 "Urban Transport Operations" and C3 "Intelligent Transport Systems" held at the Queensland University of Technology, Brisbane, Australia from 18<sup>th</sup> 20<sup>th</sup> November 2014.
- (23) Stage 4 Workshop of the Dammam Metropolitan Area Transportation Master Plan, Sheraton Hotel, Dammam, 23<sup>rd</sup> June, 2014.
- (24) 22nd Joint GCC-Japan Environment Symposium for Sustainable GCC Environment Challenge for Our Future. Organized by Japan Cooperation Center for Petroleum and KFUPM, March 3rd-5th, 2014.
- (25) The Second Meeting for Work Safety in Universities ( السلام). Organized by KFUPM, February 18th~19th, 2014.
- Qudratech Initiative: Research Skill Development in the Kingdom; from Idea to Outcome. Organized by KFUPM and KACST, February 12th, 2014.
- (27) The second Forum for Traffic Safety. Organized by Saudi Society for Traffic Safety, Dammam, November 4th~6th, 2013.
- (28) KFUPM Entrepreneurship Forum 2013. Organized by KFUPM, October 27th~28th, 2013..
- Opportunities for Research Activities at KFUPM. Organized by DSR, KFUPM, September 19th, 2013.
- (30) Joint Summer Seminar on Transport Planning and Traffic Engineering. Organized by Tongji University, and held at Shanghai, China, October 4th ~10th, 2010.
- (31) Joint Summer Seminar on Transport Planning and Traffic Engineering. Organized by Technical University of Darmstadt, and held at Hirschegg, Kleinwalsertal, Austria, October 5th ~9th, 2009.
- (32) Seminar on Civil Engineering and Policies for Developing Countries. Nagoya University, Nagoya City, Japan, October to February 2008.
- (33) Joint Summer Seminar on Traffic Engineering. Organized by Nagoya University, and held at Gotemba, Japan, September 15th ~19th, 2008.
- (34) Seminar on infrastructure planning 2. Nagoya University, Nagoya City, Japan. Attended five times in 2007, 2008 and 2009. Every semester different topics are tackled.

# ARTICLES IN MAGAZINES, NEWSPAPERS & MEDIA INTERVIEWS, AND WEBINARS

(1) Al-Rayah, (15<sup>th</sup> Sep 2021), entitled "Training Course to Discuss Traffic Safety Audits for Construction Projects".

- (2) Al-Arab, Al-Watan, Al-Sharq, Gulf Times, (19<sup>th</sup> Nov 2020), entitled "QU organizes webinar on role of road safety audits".
- (3) Lusai, Al-Rayah, Gulf Times, Al-Sharq, Penisula, Al-Watan (2<sup>nd</sup> March 2020), entitled "Innovative driving instructor programme being designed for persons with ASD".
- (4) Qatar University Research Magazine (Dec. 2019), Issue 12, report entitled "Development of Innovative Intelligent Transportation System Solutions to Improve the Safety and Efficiency of Traffic Operations", Issue 12, pp.24-25.
- (5) **Webinar by Transportation Research Board TRB online,** entitled "Understanding Pedestrian Behaviors and Traffic Controls at Signalized Crosswalks for Safety Improvement". <a href="http://www.trb.org/ElectronicSessions/Blurbs/174180.aspx">http://www.trb.org/ElectronicSessions/Blurbs/174180.aspx</a>
- (6) Peninsula (30<sup>th</sup> November 2019), Gulf Times (4<sup>th</sup> December 2019), Qatar Tribune (4<sup>th</sup> December 2019).Report on Professional Traffic Safety Training Program entitled "Road Safety Management".
- (7) Peninsula (1<sup>st</sup> Oct 2019), Al-Arab, Al-Watan (3<sup>rd</sup> Oct 2019), Al-Sharq (3<sup>rd</sup> Oct 2019), Report on Professional Traffic Safety Training Program entitled "Traffic Safety in Work Zones".
- (8) Qatar National TV, Interview on the International Traffic Safety Conference ITSC2018, as representative of the organization committee, 25<sup>th</sup> November 2018.
- (9) Peninsula, and Al-Arab (September 29<sup>th</sup>, 2018). Report on Professional Traffic Safety Training Program entitled "Training on Road Safety Audits".
- (10) Al-Rayah. (January 2nd, 2018). Report on Training Young Adults with High Functioning Autism Spectrum Disorder on Safe Driving.
- (11) Al-Watan, Al-Arab, Al-Rayah, The Peninsula, QU main website news. (November 3 & 4 & 7, 2017). QTTSC and Hasselt University sign memorandum of understanding.
- (12) Al-Arab, Al-Sharq, Al-Rayah. (October 3, 2017). A professional training course on "vulnerable road user safety; pedestrian and cyclists" was held at QTTSC.
- (13) Al-Watan, Al-Arab, Al-Sharq, Al-Rayah, Gulf Times, The Peninsula (April 10 & 11, 2017).

  A professional training course on "Road Safety Audits" was held at QTTSC.
- (14) Al-Watan, Al-Sharq, Gulf Times. (December 8, 2016). A professional training course in road safety "Post Crash Investigation" was held at QTTSC.
- (15) Al-Sharq, Al-Rayah, and Gulf Times. (November 13, 2016). A professional Training Course "Speed Enforcement and Automated Enforcement Technologies" was held at QTTSC
- (16) Peninsula, Al-Sharq, Al-Rayah, and Al-Arab. (October 5, 2016). A professional Training Course on "Global Road Safety: Public Health Trends, Road Safety Strategies and Policy Actions" was organized at QTTSC
- (17) Gulf Times, Al-Sharq, Al-Rayah, and Al-Arab. (September 26, 2016). An international forum in Road Safety Technologies between Japan and Qatar was held at QTTSC, Qatar University. A team of well-known professors from International Association of Traffic and Safety Sciences IATSS (JAPAN) was invited.
- (18) Al-Sharq, Al-Rayah, and Al-Arab. (June 7, 2016). Professional Training Course in "Road Safety Audits" was organized at QTTSC.

- (19) Al-Watan, Gulf Times, (May 18, 2016). One week Defensive Driving Event was organized and held at QTTSC with a workshop in the beginning to address the importance of Defensive Driving.
- (20) Al-Rayah Newspaper. (January 23, 2016). Report about the workshop conducted at Qatar Transportation and Traffic Safety Center, Qatar University. The title of the workshop is "Towards Safer Roads"
- (21) **TV interview at Qatar National Television**. (January 19, 2016). Introduction to Road Safety Engineering. Interview in Qatar National Television. 19 January, 2016
- (22) Introduction to Road Safety Engineering. Interview in Qatar National Television. 19
  January, 2016.

#### **PUBLICATION LIST**

## BOOKS/BOOK CHAPTERS/EDITORIALS/INTERNATIONAL & NATIONAL MAGAZINES

<u>Alhajyaseen, W.</u> & Hussain, Q. (2020) Impacts and Future Implications on Commuting Behavior in the State of Qatar. Qatar University Research Magazine, Issue 14, Dec. 2020, pp.53-55.

<u>Alhajyaseen, W.</u> & Hussain, Q. (2019) Development of Innovative Intelligent Transportation System Solutions to Improve the Safety and Efficiency of Traffic Operations. Qatar University Research Magazine, Issue 12, Dec. 2019, pp.24-25.

Alhajyaseen, W., & Abu-Lebdeh, G. (2019). The State of Qatar and the United Arab Emirates. In Global Practices on Road Traffic Signal Control (pp. 263-283). Elsevier. https://doi.org/10.1016/B978-0-12-815302-4.00014-5 [Book Chapter] https://doi.org/10.1016/B978-0-12-815302-4.00014-5

Alhajyaseen, W., & Tiwari, G. (2019). Traffic safety research in the 15th world conference on transport research. International Journal of Injury Control and Safety Promotion, Taylor & Francis, Vol. 26, Issue 3, pp. 203-204. https://doi.org/10.1080/17457300.2019.1634344 [Editorial]

<u>Alhajyaseen, W.</u> (2015). "For years, the middle east has been known to be the region with the strongest demand for intelligent transport solutions. Is this still the case, despite the dramatic drop in oil prices?". The Magazine of Intelligent Traffic Systems, Siemens, Germany, Issue 03, 2015. ISSN 2190-0302. [International Magazine, in English, Arabic and German].

## TECHNICAL REPORTS

Nakamura, H., Alhajyaseen, W., Kako, Y., Timmermans C., and Kakinuma T. (2020). Seat belt and Child restraint systems. ESRA2 Thematic report No. 8, ESRA project (E-Survey of Road users' Attitudes). International Association of Traffic and Safety Sciences (IATSS), published on 3<sup>rd</sup> Jan 2020. https://www.esranet.eu/en/deliverables-publications/

Al-Khalifa K., <u>Alhajyaseen W.</u>, Ghanim M., and Semira M. (2016). Traffic Impact Study for Katara (Cultural Village) Doha, Qatar. TIS Methodology Report, Submitted to Ministry of Transport on May 1st, 2016.

Nakamura H., Asano, M., <u>Alhajyaseen W.</u> and Wolfermann A. (2011). Development of a Simulation Model for the Safety Assessment of Signalized Intersections. Final Report of the Research Project Granted by Takata Foundation, ISSN 2185-8950.

http://www.takatafound.or.jp/support/articles/pdf/111220\_04.pdf

## REVIEWED JOURNAL PAPERS

- (1) Zhu, H., Almukdad, A., Iryo-Asano, M., Alhajyaseen, W. K., Nakamura, H., & Zhang, X. (2021). A novel agent-based framework for evaluating pedestrian safety at unsignalized midblock crosswalks. Accident Analysis & Prevention, 159, 106288. <a href="https://doi.org/10.1016/j.aap.2021.106288">https://doi.org/10.1016/j.aap.2021.106288</a>
- (2) Almallah, M., Hussain, Q., Alhajyaseen, W. K., Pirdavani, A., Brijs, K., Dias, C., & Brijs, T. (2021). Improved traffic safety at work zones through animation-based variable message signs. Accident Analysis & Prevention, 159, 106284. https://doi.org/10.1016/j.aap.2021.106284

- (3) Hussain, Q., Alhajyaseen, W. K., Adnan, M., Almallah, M., Almukdad, A., & Alqaradawi, M. (2021). Autonomous vehicles between anticipation and apprehension: investigations through safety and security perceptions. Transport policy, 110, 440-451. <a href="https://doi.org/10.1016/j.tranpol.2021.07.001">https://doi.org/10.1016/j.tranpol.2021.07.001</a>
- (4) Yasanthi, R. G., Mehran, B., & Alhajyaseen, W. K. (2021). Modelling speed behaviour in rural highways: Safety analysis of driving under adverse road-weather conditions. Plos one, 16(8), e0256322. <a href="https://doi.org/10.1371/journal.pone.0256322">https://doi.org/10.1371/journal.pone.0256322</a>.
- (5) Alhajyaseen, W. K., Almukdad, A., Hussain, Q., Almallah, M., Al Malki, M. A., Singaravelu, J., & Zammataro, S. (2021). Road safety status during COVID-19 pandemic: exploring public and road safety expert's opinions. International Journal of Injury Control and Safety Promotion, 1-17. https://doi.org/10.1080/17457300.2021.1962915
- (6) Hussain, Q., Alhajyaseen, W. K., Pirdavani, A., Brijs, K., Shaaban, K., & Brijs, T. (2021). Do detection-based warning strategies improve vehicle yielding behavior at uncontrolled midblock crosswalks?. Accident Analysis & Prevention, 157, 106166. https://doi.org/10.1016/j.aap.2021.106166
- (7) Hawari, A. H., Qasem, M., & Alhajyaseen, W. (2021). Concentration of Pb, Cu, Zn and Cd in the Roadside Soil of Doha: Effect of Traffic Volume and Season. Polish Journal of Environmental Studies, 30(4), 3579-3586. https://doi.org/10.15244/pjoes/127387
- (8) Reinolsmann, N., Alhajyaseen, W., Brijs, T., Pirdavani, A., Hussain, Q., & Brijs, K. (2021). Investigating the impact of a novel active gap metering signalization strategy on driver behavior at highway merging sections. Transportation Research Part F: Traffic Psychology and Behaviour, 78, 42-57. (Senior, IF 2.581) https://doi.org/10.1016/j.trf.2021.01.017
- (9) Almallah, M., Hussain, Q., Reinolsmann, N., & Alhajyaseen, W. K. (2021). Driving simulation sickness and the sense of presence: Correlation and contributing factors. Transportation Research Part F: Traffic Psychology and Behaviour, 78, 180-193. (Senior, IF 2.581) <a href="https://doi.org/10.1016/j.trf.2021.02.005">https://doi.org/10.1016/j.trf.2021.02.005</a>
- (10) Reinolsmann, N., Alhajyaseen, W., Brijs, T., Pirdavani, A., Hussain, Q., & Brijs, K. (2021). Sandstorm animations on rural expressways: The impact of variable message sign strategies on driver behavior in low visibility conditions. Transportation Research Part F: Traffic Psychology and Behaviour, 78, 308-325. (Senior, IF 2.581) https://doi.org/10.1016/j.trf.2021.02.015
- (11) Dirix, H., Ross, V., Brijs, K., Vermeiren, E., Timmermans, C., Alhajyaseen, W., Brijs, T., Wets, G. and Spooren, A. (2021). The appraisal of roadway environment and infrastructure by drivers with autism: A qualitative study. Transportation Research Part F: Traffic Psychology and Behaviour, 78, 280-298. (Co-author, IF 2.581) https://doi.org/10.1016/j.trf.2021.01.016
- (12) Ross, V., Reinolsmann, N., Lobbestael, J., Timmermans, C., Brijs, T., <u>Alhajyaseen, W.,</u> & Brijs, K. (2021). Relating Reactive and Proactive Aggression to Trait Driving Anger in Young and

- Adult Males: A Pilot Study Using Explicit and Implicit Measures. Sustainability, 13(4), 1850. (Co-author, IF 2.576) <a href="https://doi.org/10.3390/su13041850">https://doi.org/10.3390/su13041850</a>
- (13) Hussain, Q., Alhajyaseen, W. K., Reinolsmann, N., Brijs, K., Pirdavani, A., Wets, G., & Brijs, T (2021). Optical pavement treatments and their impact on speed and lateral position at transition zones: a driving simulator study. Accident Analysis & Prevention, Elsevier, Vol. 150, 105916. (Senior, IF 3.655) https://doi.org/10.1016/j.aap.2020.105916
- (14) **Qinaat H., <u>Alhajyaseen W.,</u> Brijs K., Pirdavani A., and Brijs T.** (2020). Improved Traffic Flow Efficiency During Yellow Interval at Signalized Intersections Using a Smart Countdown System. IEEE Transactions on Intelligent Transportation Systems, Early Access. (Senior, IF 6.00) <a href="https://doi.org/10.1109/TITS.2020.3030130">https://doi.org/10.1109/TITS.2020.3030130</a>
- (15) Alhajyaseen, W., Adnan, M., Abuhejleh, A., Onat, N., & Tarlochan, F. (2020). Travelers' preferences regarding autonomous mobility in the State of Qatar. Personal and Ubiquitous Computing, Springer, 1-9. (Senior, IF 2.00) https://doi.org/10.1007/500779-020-01407-1
- (16) Qinaat H., Alhajyaseen W., Brijs K., Pirdavani A., and Brijs T. (2020). Innovative countermeasures for red light running prevention at signalized intersections: a driving simulator study. Accident Analysis & Prevention, Elsevier, Vol. 134, 105349. (Senior, IF 3.655) https://doi.org/10.1016/j.aap.2019.105349
- (17) Timmermans, C., <u>Alhajyaseen, W.</u>, Ross, V., & Nakamura, H. (2020). Introducing a multivariate classification method: Risky driving acceptance among different heterogeneous driver sub-cultures. Journal of Safety Research, 73, 81-91. (Senior, IF 2.861) https://doi.org/10.1016/j.jsr.2020.02.009
- (18) Timmermans, C., <u>Alhajyaseen, W.</u>, Soliman, A., Brijs, T., Bedair, K., & Ross, V. (2020). Effect of ADHD traits in young drivers on self-reported deviant driving behaviours: An exploratory study in the Arab gulf region. Journal of Transport & Health, 17, 100857. (Senior, IF 2.418) <a href="https://doi.org/10.1016/j.jth.2020.100857">https://doi.org/10.1016/j.jth.2020.100857</a>
- (19) Abuhijleh, A., Dias, C. <u>Alhajyaseen, W.,</u> & Muley, D. (2020). Effect of U-Turns and Heavy Vehicles on the Saturation Flow Rates of Left-Turn Lanes at Signalized Intersections. Sustainability, MDPI, Vol. 12, Issue 11, 4485. (Co-author, IF 2.576) <a href="https://doi.org/10.3390/su12114485">https://doi.org/10.3390/su12114485</a>
- (20) Pan, A., Zhang, X., Nakamura, H., & <u>Alhajyaseen, W.</u> (2020). Investigating the Efficiency and Safety of Signalized Intersections Under Mixed Flow Conditions of Autonomous and Human-Driven Vehicles. Arabian Journal for Science and Engineering, 1-12. (Co-author, IF 1.71) <a href="https://doi.org/10.1007/s13369-020-04810-1">https://doi.org/10.1007/s13369-020-04810-1</a>
- (21) **Zhu, H., Nakamura, H., <u>Alhajyaseen, W.,</u> & Iryo-Asano, M.** (2020). Modeling Traffic Flows on Urban Arterials Considering the Downstream Influence. Transportation Research Record, 0361198120916477. (Co-author, IF 1.029) <a href="https://doi.org/10.1177/0361198120916477">https://doi.org/10.1177/0361198120916477</a>

- (22) Abdeljaber, O., Younis, A., & <u>Alhajyaseen, W.</u> (2020). Extraction of Vehicle Turning Trajectories at Signalized Intersections Using Convolutional Neural Networks. Arabian Journal for Science and Engineering, 1-15. (Senior, IF 1.71) <a href="https://doi.org/10.1007/513369-020-04546-y">https://doi.org/10.1007/513369-020-04546-y</a>
- (23) Dias, C., Iryo-Asano, M., Abdullah, M., Oguchi, T., & <u>Alhajyaseen, W.</u> (2020). Modeling Trajectories and Trajectory Variation of Turning Vehicles at Signalized Intersections. IEEE Access, 8, 109821-109834. (Co-author, IF 3.745) <a href="https://doi.org/10.1109/ACCESS.2020.3002020">https://doi.org/10.1109/ACCESS.2020.3002020</a>
- (24) Zhu, H., Nakamura, H., & <u>Alhajyaseen, W.</u> (2020). Modeling the Impact of Downstream Conditions on Discharging Behavior of Vehicles at Signalized Intersections Using Micro-Simulation. Arabian Journal for Science and Engineering, 1-16. (Co-author, IF 1.71) <a href="https://doi.org/10.1007/s13369-020-04411-y">https://doi.org/10.1007/s13369-020-04411-y</a>
- (25) Dias, C., Abdullah, M., Sarvi, M., Lovreglio, R., & <u>Alhajyaseen, W.</u> (2019). Modeling and Simulation of Pedestrian Movement Planning Around Corners. Sustainability, 11(19), 5501. <a href="https://doi.org/10.3390/su11195501">https://doi.org/10.3390/su11195501</a>
- (26) Reinolsmann, N., Alhajyaseen, W., Brijs, T., Pirdavani, A., Hussain, Q., & Brijs, K. (2019). Investigating the impact of dynamic merge control strategies on driving behavior on rural and urban expressways—A driving simulator study. Transportation research part F: traffic psychology and behaviour, 65, 469-484. https://doi.org/10.1016/j.trf.2019.08.010
- (27) Muley D., Kharbeche M., Alhajyaseen W., and Al-Salem M. (2019). Empirical Study on Pedestrian Signal Design and Compliance in the State of Qatar. International Journal of Civil Engineering, Springer, Vol 17, pp. 1653-1666. https://doi.org/10.1007/540999-019-00451-0
- (28) Reinolsmann N., Alhajyaseen W., Brijs T., Ross V., Timmermans C., and Brijs K. (2019). Investigating the Impacts of Graphical Route Information Panel Layouts on Drivers' Comprehension and Response Time. Arabian Journal for Science and Engineering, Springer, Vol. 44, 10, pp. 8439-8450. https://doi.org/10.1007/513369-019-04014-2
- (29) Qinaat H., Alhajyaseen W., Brijs K., Pirdavani A., Reinolsmann N., and Brijs T. (2019). Drivers' estimation of their travelling speed: a study on an expressway and a local road. International Journal of Injury Control and Safety Promotion, Taylor & Francis, Vol. 26, Issue 3, pp. 216-224. https://doi.org/10.1080/17457300.2019.1618342
- (30) Timmermans C., Alhajyaseen W., Al Mamun A., Wakjira T., Qasem M., Almallah M., and Younis H. (2019). Analysis of road traffic crashes in the State of Qatar. International Journal of Injury Control and Safety Promotion, Taylor & Francis, Vol. 26, Issue 3, pp. 242-250. <a href="https://doi.org/10.1080/17457300.2019.1620289">https://doi.org/10.1080/17457300.2019.1620289</a>
- (31) Suzuki K., Alhajyaseen W., Imada K., and Dias C. (2019). Motorcyclists' Safety on Expressways: Subjective and Objective Evaluations. Arabian Journal for Science and Engineering, Springer, Vol. 44, 8859. https://doi.org/10.1007/s13369-019-03895-7

- (32) Timmermans C., Alhajyaseen W., Reinolsmann N., Nakamura H., and Suzuki K. (2019). Traffic Safety Culture of Professional Drivers in the State of Qatar. IATSS Research, Elsevier, Vol. 43, Issue 5, 286-296. https://doi.org/10.1016/j.iatssr.2019.03.004
- (33) Ross V., Jongen E., Brijs K., Vanroelen G., Beelen C., Maltagliati I., Beers M., Ruiter R., Brijs T., Alhajyaseen W., Soliman A., Wets G., Vanvuchelen M. (2019). The relation between driving errors and executive functioning in intellectually able young novice drivers with an autism spectrum disorder. Transportation Research Part F: Psychology and Behavior, Elsevier, Vol. 63, pp. 38-54. https://doi.org/10.1016/j.trf.2019.03.003
- (34) Qinaat H., Alhajyaseen W., Pirdavani A., Reinolsmann N., Brijs K. and Brijs T. (2019). Speed Perception and Actual Speed in a Driving Simulator and Real-world: A Validation Study. Transportation Research Part F: Traffic Psychology and Behavior, Elsevier, Vol. 62, pp. 637-650. <a href="https://doi.org/10.1016/j.trf.2019.02.019">https://doi.org/10.1016/j.trf.2019.02.019</a>
- (35) Arshi A. N., Alhajyaseen W., Nakamura H., and Zhang X. (2018). A Comparative Study on the Operational Performance of Different Control Types of Four-leg Intersection. Transportation Research Part A: Policy and Practice, Elsevier, Vol. 118, pp. 52-67. https://doi.org/10.1016/j.tra.2018.08.039sc
- (36) Qinaat H., Ariën C., Pirdavani A., Brijs T., and Alhajyaseen W. (2018). The Impact of Perceptual Countermeasures on Driving Behavior in Rural-Urban Transition Road Segments: A Driving Simulator Study. Advances in Transportation Studies An International Journal, Vol. XLVI, pp. 83-96.
- (37) **Rizana, R., <u>Alhajyaseen, W.</u>** (2018). A mini review on percent time-spent-following (PTSF) as the service measure for two-lane highways. Communication in Science and Technology, 3(2), 48-51. http://dx.doi.org/10.21924/cst.3.2.2018.86
- (38) **Reinolsman N., Brijs k., Brijs T., and Alhajyaseen W.** (2018). Variable Message Sign Strategies for Congestion Warning on Motorways A driving Simulator Study. Advances in Transportation Studies An International Journal, Vol. XLVI, pp. 77-92.
- (39) Awan H., Sajid S., Declercq K., Adnan M., Pirdavani A., Alhajyaseen W., Brijs T. (2018). Drivers Crossing Behavior Between Express and Local Lanes with Soft Separation: A Driving Simulator Study. Advances in Transportation Studies An International Journal, Special issue Vol. 1, pp.41-54.
- (40) Al-Sahili K., Dwaikat M., Abu-Eisheh S., and Alhajyaseen W. (2018). Effectiveness of Consistency Measures in Crash Prediction Models for Two-Lane Highways in Palestine. Arabian Journal of Science and Engineering, Springer, Vol. 43, Issue 10, pp. 5645-5656. <a href="https://doi.org/10.1007/s13369-018-3285-0">https://doi.org/10.1007/s13369-018-3285-0</a>

- (41) Villegas J. J., <u>Alhajyaseen W.</u>, Nakamura H., and Goto A. (2018). Performance Evaluation of the Inside Intersection Median-turn Lane Markings on the Mobility and Safety Performance of Signalized Intersections in the Philippines and Japan. IATSS Research, Elsevier, Vol 42, pp. 230–239. <a href="https://doi.org/10.1016/j.iatssr.2017.12.001">https://doi.org/10.1016/j.iatssr.2017.12.001</a>
- (42) Iryo-Asano, M. and Alhajyaseen, W. (2017). Modeling pedestrian crossing speed profiles considering speed change behavior for the safety assessment of signalized intersections. Accident Analysis & Prevention, Elsevier, Vol. 108, pp. 332-342.
- (43) Alhajyaseen, W., Najjar, M., Ratrout, N., and Assi, K. (2017). The Effectiveness of Applying Dynamic Lane Grouping Strategy at All Approaches of Isolated Signalized Intersections. Case Studies in Transport Policy, Elsevier, Vol. 5, Issue 2, pp 224-232.
- (44) Alhajyaseen, W, Iryo-Asano, M. (2017). Studying Critical Pedestrian Behavioral Changes for the Safety Assessment at Signalized Crosswalks. Safety Science, Elsevier, Vol. 91, pp. 351-360.
- (45) Alhajyaseen, W., Ratrout, N., Assi, K. and Abu Hassan, A. (2017). The Integration of Dynamic Lane Grouping Technique and Signal Timing Optimization for Improving the Mobility of Isolated Intersections. Arabian Journal for Science and Engineering, Springer, Volume 42, pp 1013-1024, DOI: 10.1007/s13369-016-2274-4.
- (46) Alhajyaseen, W. (2015). The Integration of Conflict Probability and Severity for the Safety Assessment of Intersections. Arabian Journal for Science and Engineering, Springer, Volume 40, Issue 2, Page 421-430.
- (47) Alhajyaseen, W. (2014). Pedestrian Speed at Signalized Crosswalks; Analysis and Influencing Factors. International Journal of Engineering Management and Economics, Vol. 5, Nos. ¾, pp.258-272.
- (48) Iryo-Asano, M., <u>Alhajyaseen, W.,</u> and Nakamura, H. (September, 2014). Analysis and Modeling of Pedestrian Crossing Behavior during Pedestrian Flashing Green Interval. IEEE Transactions on Intelligent Transportation Systems, Vol. 16, Issue 2, pp. 958-969. DOI: 10.1109/TITS.2014.2346154
- (49) Alhajyaseen, W. and Li, M. (January, 2014). Consideration of Vehicular and Pedestrian Flows in A Multi-Modal Traffic Signal Optimization Strategy for Isolated Intersections. An-Najah University Journal for Research Part A (Natural Sciences), Volume 28, Issue 1, pp. 33-60.
- (50) Alhajyaseen, W. and Nakamura, H. (July, 2012). Design Criteria for Crosswalk Width and Position at Signalized Intersections. Journal of Civil Engineering and Architecture, David Publishing Company, USA, Vol. 6, No. 56, pp. 844-857.
- (51) Alhajyaseen, W., LI, M., Nakamura, H. and Daamen, W. (March, 2013). Effectiveness of Signal Coordination for Pedestrian Flows Considering Bi-directional Flow Impacts. Asian Transport Studies

- ATS, Eastern Asia Society for Transportation Studies (EASTS), Vol. 2, No. 3, pp. 223-238. http://dx.doi.org/10.11175/eastsats.2.223
- (52) Tan, D., Alhajyaseen W., Asano, M. and Nakamura, H. (2013). Development of Microscopic Traffic Simulation Model for Safety Assessment at Signalized Intersections. Transportation Research Record, Journal of Transportation Research Board, Volume 2316, pp. 122-131.
- (53) Alhajyaseen W., Asano, M. and Nakamura, H. (July, 2013). Stochastic Approach for Modeling the Effects of Intersection Geometry on Turning Vehicle Paths. Transportation Research Part C: Emerging Technologies, Elsevier, Vol 32, pp. 179-192.
- (54) Alhajyaseen W., Asano, M. and Nakamura, H. (January, 2013). Left-turn gap acceptance models considering pedestrian movement characteristics. Accident Analysis and Prevention, Elsevier, Vol. 50, pp. 175-185.
- (55) Alhajyaseen W., Asano, M. and Nakamura, H. (2012). Estimation of Left-turning Vehicle Maneuvers for the Assessment of Pedestrian Safety at Intersections. Journal of International Association of Traffic and Safety Sciences, IATSS Research, Elsevier, Vol.36, Issue 1, pp. 66-74.
- (56) Alhajyaseen W., Asano, M., Suzuki, K. and Nakamura, H. (2011). Analysis on the Variation of Left-Turning Vehicle Trajectories inside Intersections. Journal of the Eastern Asia Society for Transportation Studies (EASTS), Vol.9, pp.1543-1557, 2011.
- (57) Alhajyaseen, W., Nakamura, H. and Asano, M. (2011). Effects of Bi-directional Pedestrian Flow Characteristics upon the Capacity of Signalized Crosswalks. Procedia Social and Behavioral Sciences, Elsevier, Volume 16, pp. 526-535.
- (58) Alhajyaseen, W. and Nakamura, H. (2010). Quality of Pedestrian Flow and Crosswalk Width at Signalized Intersections. Journal of International Association of Traffic and Safety Sciences, IATSS Research, Elsevier, Vol.34, Issue 1, pp. 35-41.
- (59) Alhajyaseen, W. and Nakamura, H. (2010). Estimating the Minimum Required Width of Signalized Crosswalks Considering Bi-directional Pedestrian Flow and Different Age Groups. Asian Transport Studies ATS, Eastern Asia Society for Transportation Studies (EASTS), Vol. 1, Issue 2, pp. 181-198.
- (60) Alhajyaseen, W. and Nakamura, H. (2009). Modeling and Analysis of Pedestrian Flow at Signalized Crosswalks. Journal of Infrastructure Planning Review, Japan Society of Civil Engineers, Vol. 26, pp.611 620.

# REVIEWED PAPERS IN INTERNATIONAL CONFERENCES

- (1) Almukdad, A., Almallah, M., Hussain, Q., Alhajyaseen, W. K., Albeitjali, N., & Alqaradawy, M. (2021). Analysis of gap parameters for the estimation of single lane roundabouts' capacity in the State of Qatar. Procedia Computer Science, 184, 250-257. https://doi.org/10.1016/j.procs.2021.03.034
- (2) Abdelaal, A., Dias, C., Sarvi, M., <u>Alhajyaseen, W.</u>, & Tarlochan, F. (2020). Crowd Dynamics, Management and Control at Tourist Attractions during Special Events: A Case Study at Souq Waqif Using Pedestride® Crowd Simulation Tool. Proceedings of the International Conference on Civil Infrastructure and Construction (CIC 2020). <a href="http://dx.doi.org/10.29117/cic.2020.0045">http://dx.doi.org/10.29117/cic.2020.0045</a>
- (3) C. J. R. Samson, F. Kahil, K. G. M. Mohamed, Q. Hussain and <u>W. K. M. Alhajyaseen.</u> (2020). Effectiveness of Speed Limit Pavement Markings at Transition Zones Along Expressways. 2020 IEEE International Conference on Informatics, IoT, and Enabling Technologies (ICIoT), Doha, Qatar, pp. 410-414, <a href="http://dx.doi.org/10.1109/ICIoT48696.2020.9089550">http://dx.doi.org/10.1109/ICIoT48696.2020.9089550</a>
- (4) Y. Akbari, H. Hassen, N. Subramanian, J. Kunhoth, S. Al-Maadeed and <u>W. Alhajyaseen.</u> (2020). A vision-based zebra crossing detection method for people with visual impairments. 2020 IEEE International Conference on Informatics, IoT, and Enabling Technologies (ICIoT), Doha, Qatar, pp. 118-123, doi: 10.1109/ICIoT48696.2020.9089622.
- (5) Hussain, Q., Almallah, M., Alhajyaseen, W., & Dias, C. (2020). Impact of the geometric field of view on drivers' speed perception and lateral position in driving simulators. Procedia Computer Science, 170, 18-25. https://doi.org/10.1016/j.procs.2020.03.005
- (6) Reinolsmann, N., Alhajyaseen, W., Brijs, T., Pirdavani, A., Ross, V., Hussain, Q., & Brijs, K. (2020). Dynamic travel information strategies in advance traveler information systems and their effect on route choices along highways. Procedia Computer Science, 170, 289-296. https://doi.org/10.1016/j.procs.2020.03.042
- (7) Almallah, M., Alfahel, R., Hussain, Q., Alhajyaseen, W., & Dias, C. (2020). Empirical evaluation of drivers' start-up behavior at signalized intersection using driving simulator. Procedia Computer Science, 170, 227-234. https://doi.org/10.1016/j.procs.2020.03.034
- (8) Abdur Rouf K., Abdella G., Al-Khalifa K., and <u>Alhajyaseen W.</u> (2018). Ridge Penalization-based Generalized Linear Model (GzLM) for Predicting Risky-Driving Index. The International Conference on Industrial Engineering and Operations Management, Washington DC, USA, Sep. 27-29, 2018.
- (9) Alhajyaseen W., Ratrout N., Muley D. (2018). Relationship between Chauffeurs' Demographics, and Knowledge of Traffic Signs in the Kingdom of Saudi Arabia. Procedia Computer Science, Elsevier, 130, 34-41.

- (10) Soliman A., Alhajyaseen W., Alfar R., I Alkaab I.i. (2018). Changes in Driving Behavior Across Age Cohorts in an Arab Culture: the Case of State of Qatar. Procedia Computer Science, Elsevier, 130, 652-659.
- (11) Muley D., <u>Alhajyaseen W.</u>, Kharbeche M., Al-Salem M. (2018). Pedestrians' Speed Analysis at Signalized Crosswalks. Procedia Computer Science, Elsevier, 130, 567-574.
- (12) Jabbar R., Al-Khalifa K., Kharbeche M., <u>Alhajyaseen W.</u>, Jafari M., JiangS. (2018). Real-time Driver Drowsiness Detection for Android Application Using Deep Neural Networks Techniques. Procedia Computer Science. Elsevier, 130, 400-407.
- (13) Mohammed S., <u>Alhajyaseen W., Zriak R., Khorasani M.</u> (2018). Effectiveness of Driver Simulator as a Driving Education Tool. Qatar Foundation Annual Research Conference Proceedings 2018 (3), ICTPD990.
- (14) Jabbar R., Al-Khalifa K., Kharbeche M., <u>Alhajyaseen W.</u>, Jafari M., JiangS. (2018). Applied Internet of Things IoT: Car monitoring system for Modeling of Road Safety and Traffic System in the State of Qatar. Qatar Foundation Annual Research Conference Proceedings 2018 (3), ICTPP1072.
- (15) Hussain Q., Pirdavani A., Ariën C., Brijs T., and Alhajyaseen W. (2018). The impact of perceptual countermeasures on driving behaviour in rural-urban transition: a driving simulator study. 18th International Conference Road Safety on Five Continents (RS5C 2018), Jeju Island, South Korea, May 16-18.
- (16) Ghadban N., Abdellah G., <u>Alhajyaseen W.</u>, and Al-Khalifa K. (2018) "Analyzing the Impact of Human Characteristics on the Comprehensibility of Road Traffic Signs". 8th International Conference on Industrial Engineering and Operations Management IEOM, Indonesia, March 6-8.
- (17) Mohammed S., Al-Khalifa K., <u>Alhajyaseen W.</u>, Abounada S., and Ahmed M. (2018) "Attitudes towards Road Safety among Pre-drivers: The Case of Qatar". 8th International Conference on Industrial Engineering and Operations Management IEOM, Indonesia, March 6-8.
- (18) **Zhao Y., Zhang X., <u>Alhajyaseen W.</u>, and Nakamura H. (2018).** Modeling the Impact of Heavy Vehicle and Geometry on Roundabout Entry Capacity. Proceedings of the 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington DC.
- (19) Awan H. H., Brijs T., Pirdavani A., Declercq K., <u>Alhajyaseen W</u>. (2017). Evaluation of Different Separations Between Express and Local Lanes Using A Driver Simulator. International Road Safety and Simulation Conference, Delft, the Netherlands (October 16-19).

- (20) Mulev D., Alhajyaseen W., and Kharbeche M. (2017) "An overview of pedestrian signal setting and implementation in the State of Qatar". 8th International Conference on Ambient Systems, Networks and Technologies (ANT), Procedia Computer Science, Elsevier, Vol. 109, pp. 545-552.
- (21) Mulev D., Kharbeche M., <u>Alhajyaseen W.</u>, and Al-Salem M. (2017) "Pedestrians' Crossing Behavior at Marked Crosswalks on Channelized Right-Turn Lanes at Intersections". Submitted to 8th International Conference on Ambient Systems, Networks and Technologies (ANT), Procedia Computer Science, Elsevier, Vol. 109, pp. 233-240.
- (22) Abdellah G., Alhajyaseen W., Al-Khalifa K. and Hamouda A. (2017) "Usage of Non-Linear Regression for Modeling the Behavior of Motor Vehicle Crash Fatality (MVF) Rate". 7th International Conference on Industrial Engineering and Operations Management, Rabat, Morocco, April 11-13.
- (23) Liono J., Dau H., Salim F., Song A., <u>Alhajyaseen W.</u>, Bradbrook D. and Bouguettaya A. (2016) "Detecting passenger discomfort from abnormal driving manoeuvres". 23<sup>rd</sup> ITS World Congress, Melbourne, Australia, 10-14 October.
- (24) Alhajyaseen, W., Najjar, M., Ratrout, N., and Assi, K. (2016). The Effectiveness of Applying Dynamic Lane Grouping Strategy at All Approaches of Isolated Signalized Intersections. Published in the Proceedings of the 14th World Conference on Transport Research WCTR, Shanghai, China, 10-15 July 2016.
- (25) Al-Sahili, K., Dwikat, M., Abu-Eisheh, S., and Alhajyaseen, W. (2016). Effectiveness of Consistency Measures in Crash Prediction Models for Two-Lane Highways in Palestine. Published in the Proceedings of the 14th World Conference on Transport Research WCTR, Shanghai, China, 10-15 July 2016.
- (26) Iryo-Asano, M., <u>Alhajyaseen, W.</u> (2016). Consideration of Pedestrian Speed Change Model in the Pedestrian-Vehicle Safety Assessment at Signalized Crosswalks. Published in the Proceedings of the International Symposium of Transport Simulation, Procedia, Transportation Research Procedia, Elsevier, Vol. 21, pp. 87-97.
- (27) Park, J., Alhajyaseen, W. and Iryo-Asano, M. (2016). Comparative Maneuvers of Left-Turning Movements at Signalized Intersections in New York City. Accepted for presentation at the 7<sup>th</sup> International Symposium on Highway Capacity and Quality of Service ISEHP, Berlin, Germany, to be held between 14-16 June 2016.
- (28) Park, J., Li, S., Yu. W., Yang, W., <u>Alhajyaseen</u>, W. and Iryo-Asano, M. Pedestrian Crossing Behavior and Compliance at Signalized Intersections. Proceedings of the 17<sup>th</sup> Road Safety on Five Continents International Conference, Rio de Janeiro, Brazil, to be held between 17-19 May 2016.
- (29) Alhajyaseen, W. and Iryo, M. (2016) The Assessment of Pedestrian-Vehicle Conflicts at Crosswalks Considering Sudden Pedestrian Speed Change Events. Qatar Foundation Annual

Research Conference Proceedings 2016: ICTPP2369 http://dx.doi.org/10.5339/qfarc.2016.ICTPP2369

- (30) Alhajyaseen, W., Iryo-Asano, M. (2015). A Study on Crossing Speed Profiles of Pedestrians at Signalized Crosswalks. Proceedings of the 24th World International Traffic Medicine Association (ITMA) Conference, Doha, Journal of Local and Global Health Science 2015:7 http://dx.doi.org/10.5339/jlghs.2015.itma.7.
- (31) Iryo-Asano, M., <u>Alhajyaseen, W.</u>, Zhang, X. and Nakamura, H. (2015). Analysis of Pedestrian Speed Change Behavior at Signalized Crosswalks. Proceedings of the Road Safety & Simulation International Conference, Orlando Florida, pp. 1606-1618.
- (32) Park, J., <u>Alhajyaseen, W.</u> and Iryo-Asano, M. (2015). Comparative Analysis on the Maneuver of Turning Vehicles at Crosswalks in United States and Japan. Proceedings of the Road Safety & Simulation International Conference, Orlando Florida, pp. 952-964.
- (33) <u>Alhajyaseen, W.</u> (2014). The Development of Conflict Index for the Safety Assessment of Intersections Considering Crash Probability and Severity. Procedia Computer Science, Elsevier, Vol. 32, pp. 364-371.
- (34) Iryo-Asano, M., and <u>Alhajyaseen, W</u>. (2014) Analysis of Pedestrian Clearance Time at Signalized Crosswalks in Japan. Procedia Computer Science, Elsevier, Vol. 32, pp. 301-308.
- (35) Asano, M., Alhajyaseen, W., Nakamura, H and Zhang, X. (2013). Stochastic Approach for Modeling Pedestrian Crossing Behavior After the Onset of Pedestrian Flashing Green Signal Indication. Accepted for the presentation at the 13th World Conference in Transportation Research, Rio de Janerio, Brazil, July 15-18.
- (36) Alhajyaseen, W., Asano, M., and Nakamura, H. (2012). An Integrated Model for reproducing the Maneuver of Left Turners Considering Dynamic Reaction to Crossing Pedestrians. Transportation Research Board (TRB) 91st Annual Meeting, CD-ROM, Washington DC, USA, 16 pages.
- (37) Tan, D. M., Alhajyaseen W., Asano, M. and Nakamura, H. (2012). A microscopic Traffic Simulation Model for Safety Assessment at Signalized Intersections. Transportation Research Board (TRB) 91st Annual Meeting, CD-ROM, Washington DC, USA, 17 pages.
- (38) Alhajyaseen, W., Asano, M, Nakamura, H and Kang, N. (2011). Gap Acceptance Models for Left-Turning Vehicles Facing Pedestrians at Signalized Crosswalks. Accepted for the presentation at the 3rd International Conference on Road Safety and Simulation, Transportation Research Board TRB, Indianapolis, Indiana, USA, 17 pages.
- (39) <u>Alhajyaseen, W.</u>, Asano, M, Dang, M. T. and Nakamura, H. (2011). A Methodology for Modeling the Distribution of Turning Vehicle Paths at Signalized Intersections. Accepted for the presentation

- at the 3rd International Conference on Road Safety and Simulation, Transportation Research Board TRB, Indianapolis, Indiana, USA, 20 pages.
- (40) Wolfermann, A., <u>Alhajyaseen W.</u> and Nakamura, H. (2011). Modeling Speed Profiles of Turning Vehicles at Signalized Intersections. Accepted for the presentation at the 3rd International Conference on Road Safety and Simulation, Transportation Research Board TRB, Indianapolis, Indiana, USA, 17 pages.
- (41) Alhajyaseen W., Nakamura, H. and Asano, M. (2011). Effects of Bi-directional Pedestrian Flow Characteristics upon the Capacity of Signalized Crosswalks. Proceedings of the 6th International Symposium on Highway Capacity and Quality of Service ISHC, Transportation Research Board TRB, Stockholm, Sweden, 10 pages.
- (42) <u>Alhajyaseen W.</u>, Asano, M., Suzuki, K. and Nakamura, H. (2011). *Analysis on the Variation of Left-Turning Vehicle Trajectories inside Intersections*. Proceedings of the 9th Eastern Asia Society for Transportation Studies EASTS International Conference, Jeju, Korea, 15 pages.
- (43) Alhajyaseen, W., LI, M., Nakamura, H. and Daamen, W. (2011). Effectiveness of Signal Coordination for Pedestrian Flows Considering Bi-directional Flow Impacts. Proceedings of the 9th Eastern Asia Society for Transportation Studies EASTS International Conference, Jeju, Korea, 15 pages.
- (44) <u>Alhajyaseen, W., Zhang, X., Nakamura, H. and Asano, M.</u> (2011). *Analysis on Pedestrian Speeds at Intersections Considering Signal Timing and Crosswalk Length*. Proceedings of the 9th Eastern Asia Society for Transportation Studies EASTS International Conference, Jeju, Korea, 13 pages.
- (45) Alhajyaseen W., Asano, M., Suzuki, K. and Nakamura, H. (2011). Modeling the Variation in the Trajectory of Left Turning Vehicles Considering Intersection Geometry. Transportation Research Board (TRB) 90th Annual Meeting, CD-ROM, Washington DC, USA, 17 pages.
- (46) Alhajyaseen, W., LI, M., Daamen, W. and Nakamura, H. (2010). Evaluation of Signal Coordination for Pedestrian and Vehicular Flows. Proceedings of the 12th World Conference in Transport Research WCTR, Lisbon, Portugal, 18 pages.
- (47) Alhajyaseen, W. and Nakamura, H. (2010). Design Criteria for Crosswalk Width and Position at Signalized Intersections. Proceedings of the 4th International Symposium on Highway Geometric Design, Transportation Research Board (TRB), Valencia, Spain, 18 pages.
- (48) Li, M., Alhajyaseen, W. and Nakamura, H. (2010). A Traffic Signal Optimization Strategy Considering Both Vehicular and Pedestrian Flows. Transportation Research Board (TRB) 89th Annual Meeting, CD-ROM, Washington DC, USA, 18 pages.

- (49) Alhajyaseen, W. and Nakamura, H. (2009). Estimating the Minimum Required Width of Signalized Crosswalks Considering Bi-directional Pedestrian Flow and Different Age Groups. Proceedings of the 8th Eastern Asia Society for Transportation Studies EASTS International Conference, CD-ROM, Surabaya, Indonesia, 16 pages.
- (50) Alhajyaseen, W. and Nakamura, H. (2009). Estimation of Crosswalk Width to Minimize Cycle Length at Signalized Intersections. Proceedings of the 11th International Summer Symposium, Japan Society of Civil Engineers, pp. 213 216, Tokyo, Japan, 4 pages.
- (51) Alhajyaseen, W. and Nakamura, H. (2009). A Methodology for Modeling Pedestrian Platoon Discharge and Crossing Times at Signalized Intersections. Transportation Research Board (TRB) 88th Annual Meeting, CD-ROM, Washington DC, USA, 19 pages.

#### REVIWED PAPERS IN DOMESTIC CONFERENCES

- (52) Asano, M., Zhang, X., <u>Alhajyaseen, W.</u> and Nakamura, H. (2012). A Study on Pedestrian Clearing Behavior at Signalized Intersections. Proceedings of the 32nd Annual Meeting of Japan Society of Traffic Engineers, Tokyo, JAPAN, 6 pages. (In Japanese)
- (53) Kang, N., Alhajyaseen, W., Wolfermann, A., Asano, M. and Nakamura, H. (2011). Modeling the Maneuver of Left-turning Vehicles Considering the Interaction with Pedestrians at Signalized Intersections. Proceedings of Infrastructure Planning, Vol. 43, CD-ROM, Japan Society of Civil Engineers, Tsukuba, JAPAN, 9 pages.
- (54) Tan, D., Alhajyaseen, W., Asano, M. and Nakamura, H. (2011). Developing a Simulation Tool for Traffic Safety Assessment at Signalized Intersections. Proceedings of Infrastructure Planning, Vol. 43, CD-ROM, Japan Society of Civil Engineers, Tsukuba, JAPAN, 6 pages.
- (55) Zhang, X., Alhajyaseen, W., Asano, M. and Nakamura, H. (2011). The impacts of signal timing and crosswalk length upon pedestrian speeds at signalized crosswalks. Proceedings of Infrastructure Planning, Vol. 43, CD-ROM, Japan Society of Civil Engineers, Tsukuba, JAPAN, 5 pages.
- (56) Kang, N., Alhajyaseen, W., Nakamura, H., Asano, M. and Tang, K. (2010). Evaluation of Group-Based Signal Control Through Field Operational Tests. Proceedings of Infrastructure Planning, Vol. 41, CD-ROM, Japan Society of Civil Engineers, Nagoya, JAPAN, 4 pages.
- (57) Tan, D., Asano, M., Alhajyaseen, W. and Nakamura, H. (2010). Pavement Marking Treatments. Proceedings of Infrastructure Planning, Vol. 41, CD-ROM, Japan Society of Civil Engineers, Nagoya, JAPAN, 4 pages.
- (58) Alhajyaseen, W. and Nakamura, H. (2009). Effects of Bi-directional Flow and Different Pedestrian Age-Groups on Capacity of Signalized Crosswalks. Proceedings of Infrastructure Planning, Vol. 39, CD-ROM, Japan Society of Civil Engineers, Tokushima, 4 pages.

(59) Alhajyaseen, W., Nakamura, H. and Catbagan J. (2008). A Proposed Methodology for Modeling Pedestrian Crossing Time at Signalized Crosswalks Considering Bi-directional Flow. Proceedings of Infrastructure Planning, Vol. 38, Japan Society of Civil Engineers, Wakayama, 4 pages.

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