Qinaat Hussain

Date of birth: 15 Jan 1991 | **Nationality:** Pakistani | **Gender** Male | (+974) 33531196 |

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https://scholar.google.com/citations?user=e3NKZr4AAAAJ&hl=en |

Doha, Qatar, Doha, Qatar

WORK EXPERIENCE

8 AUG 2021 - Current Doha, Qatar	**RESEARCH ASSOCIATE** Qatar Transportation and Traffic Safety Center, College of Engineering, Qatar University
1 MAY 2020 - 30 MAY 2021 Doha, Qatar	**SENIOR RESEARCHER** Qatar Transportation and Traffic Safety Center, College of Engineering, Qatar University
16 JAN 2018 - 30 APR 2020 Doha, Qatar	**RESEARCH ASSISTANT** Qatar Transportation and Traffic Safety Center, College of Engineering, Qatar University
6 MAR 2017 - 16 JUN 2017 Sydney, Australia	**RESEARCH ASSISTANT** – Transport and Road Safety (TARS) Research Centre, University of New South Wales

EDUCATION AND TRAINING

1 NOV 2017 - 27 OCT 2020 Diepenbeek, Belgium	**PHD IN TRANSPORTATION SCIENCES** Hasselt University, Belgium
14 SEP 2015 – 1 AUG 2017 Diepenbeek, Belgium	**MASTER OF TRANSPORTATION SCIENCES** Hasselt University, Belgium
1 JAN 2010 – 1 MAY 2014 Karachi, Pakistan	**BACHELOR IN CIVIL ENGINEERING** Sir Syed University of Engineering and Technology

PROJECTS

2020-2021 Qatar University, Doha	Enhancing pedestrian safety through the development of advanced operational strategies for crosswalks in residential areas. Undergraduate Research Experience Program. Budget: 15,000 US$ Sponsor: Qatar National Research Fund (QNRF) - UREP25-031-2-017 Role: Mentor
2020-2021 Qatar University, Doha	Development of innovative driving instructor modules to enhance safe driving behavior and autonomy in people with high-functioning autism spectrum disorder (ASD). Budget: 600,000 US$ Sponsor: Qatar National Research Fund (QNRF) - NPRP11S-1228-170143 Role: Senior Researcher
2019-2020 Qatar University, Doha	Developing innovative speed calming countermeasures via pavement marking for the speed management at rural- urban transition road segments using a driving simulator. Budget: 14,988 US$ Sponsor: Qatar National Research Fund (QNRF) - UREP23-026-2-011 Role: Mentor
2018-2020 Qatar University, Doha	Modeling the Impacts of Different Variable Message Sign Strategies on Driver Behavior using Driving Simulations. Budget: 650,000 US$ Sponsor: Qatar National Research Fund (QNRF) - NPRP9-360-2-150 Role: Research Assistant
2017-2018 UNSW, Sydney	Crash risk curves for pedestrian and car safety: Protocol development for Cochrane review Non-funded project - Transport and Road Safety (TARS) Research

JOURNAL CONTRIBUTION

[1]. **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.

[2]. **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.

[3]. 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.

[4]. 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.

[5]. **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, 150, 105916.

[6]. 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.

[7]. 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.

[8]. 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.

[9]. **Hussain, Q**., Alhajyaseen, W., Brijs, K., Pirdavani, A., & Brijs, T. (2020). Improved traffic flow efficiency during yellow interval at signalized intersections using a smart countdown system. IEEE Transactions on Intelligent Transportation Systems

[10]. **Hussain, Q**., Alhajyaseen, W. K., Brijs, K., Pirdavani, A., & Brijs, T. (2020). Innovative countermeasures for red light running prevention at signalized intersections: A driving simulator study. Accident Analysis & Prevention, 134, 105349.

[11]. **Hussain, Q**., Feng, H., Grzebieta, R., Brijs, T., & Olivier, J. (2019). The relationship between impact speed and the probability of pedestrian fatality during a vehicle-pedestrian crash: a systematic review and meta-analysis. Accident Analysis & Prevention, 129, 241-249.

[12]. **Hussain, Q**., Alhajyaseen, W. K., Pirdavani, A., Reinolsmann, N., Brijs, K., & 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 behaviour, 62, 637-650.

[13]. **Hussain, Q**., Alhajyaseen, W. K., Brijs, K., Pirdavani, A., Reinolsmann, N., & 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, 26(3), 216-224.

[14]. 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.

[15]. Reinolsmann, N., Alhajyaseen, W., Brijs, T., Ross, V., Timmermans, C., Pirdavani, A., ... & Brijs, K. (2019). Investigating the Impacts of Graphical Route Information Panel Layouts on Drivers' Comprehension and Response Time. Arabian Journal for Science and Engineering, 44(10), 8439-8450.

[16]. **Hussain, Q**., Pirdavani, A., Ariën, C., Brijs, T., & 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, 46, 83-96

[17]. **Hussain Q**., Feng H., Grzebieta, R., Brijs, T., & Olivier, J. (2018). A systematic review and meta-analysis of impact speed and probability of pedestrian fatality. Injury Prevention, 2018; 24:A69.

CONFERENCE   CONTRIBUTION

[18].   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.

[19].   Samson, C. J. R., Kahil, F., Mohamed, K. G. M., **Hussain, Q**., & Alhajyaseen, W. K. M. (2020). Effectiveness of Speed Limit Pavement Markings at Transition Zones Along Expressways. IEEE International Conference on Informatics, IoT, and Enabling Technol

[20].   **Hussain, Q**., Almallah, M., Alhajyaseen, W. K. M., & 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. doi:https://doi.org/10.1016/j.p

[21].   Almallah, M., Alfahel, R., **Hussain, Q**., Alhajyaseen, W. K. M., & Dias, C. (2020). Empirical evaluation of drivers' start-up behavior at signalized intersection using driving simulator. Procedia Computer Science, 170, 227-234. doi:https://doi.org/10.1

[22].   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

[23].   **Hussain, Q**., Feng H., Grzebieta, R., Brijs, T., & Olivier, J. (2018). Impact Speed and Probability of Pedestrian Fatality: A Systematic Review and Meta-Analysis. TRB annual meeting 2019, Washington, D.C. US.

[24].   Reinolsmann, N., Alhajyassen, W., Brijs, K., Pirdavani, A., **Hussain, Q**., & Brijs, K. (2019). Influence of design elements in Graphical Route Information Panels on drivers' comprehension and response time. 15th World Conference on Transport Research (

[25].   **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

REVIEWER

- Accident Analysis and Prevention
- Traffic Injury Prevention
- Journal of Traffic and Transportation Management
- Transport Problems
- Transportation Safety and Environment
- Journal of Advanced Transportation
- The Journal of Visualized Experiments
- Road Safety and Simulation (RSS)
- World Conference on Transport Research
- International Conference on Transportation Engineering and Automotive Engineering

DIGITAL SKILLS

Traffic
STISIM DRIVE, SCANeR studio, PTV VISSIM, T-Analyst, RUBA

Analysis
SPSS, MiniTab, Microsoft, Excel, SAS, R

Research
Microsoft Office, EndNote, ZOTERO

Engineering & Management
Primavera,   ETABS, AUTOCAD

Others
Adobe Photoshop, Adobe Premiere, Windows

LANGUAGE SKILLS

PASHTO
Native speaker

ENGLISH
Listening - Proficient, Speaking - Fluent, Writing - Fluent, Reading - Proficient

AREAS OF EXPERTISE

Driving simulation

The process for executing the following studies includes, proposing and designing of innovative solutions, designing of 3d objects (using 3d max, Sketchup and photoshop), coding the scenarios, execution of the experiment, data analysis and reporting:

1. Red light running prevention at signalized intersections
2. Efficiency at signalized intersections
3. Pedestrian detection-based strategies
4. Work zone management
5. Perceptual countermeasures
6. Validation of driving simulation
7. Cyclists' safety
8. Highway merging sections

Crash data

Handing crash data to analyze crash risk curves for pedestrian and car safety using appropriate statistical methods.

Survey research

Conducting survey research by designing surveys, collecting data, statistically analyzing to draw meaningful research conclusions.

OTHER SKILLS

Communication skills

1. Excellent writing skills
2. Excellent verbal communication
3. Excellent non-verbal communication
4. Excellent public speaking

Interpersonal skills

1. Strong teamwork skills
2. Well organized and efficient
3. Positive Attitude
4. Empathy

Technical skills

1. Extra-ordinary computer skills
2. Analytical skills
3. Critical thinking
4. Contextualize

TEACHING EXPERIENCE

JAN 2019 - CURRENT
Mentoring bachelor's students at QTTSC, College of Engineering, Qatar University

Project1: Undergraduate Research Experience Program, UREP23-026-2-011, Jan 2019 - Jan 2020Project2: Undergraduate Research Experience Program, UREP25-031-2-017, Jan 2020 – Present

- Providing complete guidance and support throughout the project
- Training the students regarding the scenarios design using STISIM
- Teaching the students appropriate methods for cleaning the data, analyzing and reporting the results

APR 2014 - DEC 2014
Lab teaching assistant for ETABS at SSUET, Karachi

- Enhanced students' learning by arranging work sessions of the previous tasks
- Assisted students with proper use of the software to develop structural analysis
- Teaching about processes that were demonstrated in lab sessions

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

1 APR 2014 - CURRENT
Pakistan Engineering Council

Lifetime subscription
PEC Reg No: CIVIL/35569

The World Conference on Transport Research Society - WCTRS

WCTRS: SIG-C4
Traffic Safety Analysis and Policy

HONOURS AND AWARDS

Best research awards – Qatar University
Information and Communication Technologies (ICT); Award for research entitled "Impact of Countdown Ground LED lights on Traffic Flow Efficiency at Signalized Intersections: A Driving Simulator Study" by Qinaat Hussain, Wael K. M. Alhajyaseen, Kris Brijs, Ali Pirdavani, Tom Brijs.
http://www.qu.edu.qa/conference/researchforum/award%E2%80%93categories

Fully funded scholarship – Higher Education Commission
A merit-based scholarship "HRDi-UESTP project" for master's studies, where I studied masters in Transportation Sciences at Hasselt University, Belgium.

Awards of internships outside the Europe – Hasselt University
Honored with an award of internship for University of New South Wales, UNSW, Sydney, Australia, where I worked on a project under the Practicum program.

Merit based award prizes at SSUET – Sir Syed University of Engineering and Technology
Achieved merit-based award prizes of around 200 USD throughout my bachelor program (Civil Engineering) based on the results after each semester (i.e., 8 semesters).