Dr. Omar Alharasees

Assistant Professor in Transportation Engineering

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Profile

Assistant Professor of Civil Engineering at Jerash University with a Ph.D. and MSc in Transportation Engineering and a BSc in Civil Engineering. Research and teaching focus on the integration of infrastructure, safety protocols, and emerging transportation technologies. Specialized in Human Factors, Air Transport Management, and Transport Safety, applying Decision-Making Techniques to both general transportation and aviation. Technical expertise includes Intelligent Transport Systems (ITS), Unmanned Air Systems (UAS), and Autonomous Transport Systems. Research also covers Infrastructure Engineering, Sustainable and Green Buildings, and Energy Sustainability.

Education

Ph.D. / Transportation Engineering 09/2021 – 07/2025
Budapest University of Technology and Economics Budapest, Hungary.
Faculty of Transportation Engineering and Vehicle Engineering, Excellent grade average (5 out of 5).
PhD Dissertation: Assessing Transport Operators' Total Loads and Multi-Criteria Decision-Making (MCDM) Applications in Aviation .

MSc / Transportation Engineering 09/2017 – 07/2019
Budapest University of Technology and Economics Budapest, Hungary.
Faculty of Transportation Engineering and Vehicle Engineering, Excellent grade average (4.6 out of 5).
Master Thesis: Evaluating public transport development projects by multi-criteria methods. http://dx.doi.org/10.13140/RG.2.2.19440.78085

BSc / Civil Engineering 09/2010 – 06/2014
Tafila Technical University Tafila, Jordan.
Civil Engineering Branch, Very Good Average (81.35%).
Thesis: Analysis of lateral force resisting system (LFRS) by the American Society of Civil Engineers code (ASCE) and the Uniform Building Code (UBC).

Languages

Arabic ●●●●●

English ●●●●○
IELTS

Hungarian ●○○○○

German ●○○○○

Professional Experience

Assistant Professor 03/2026 – Present
Jerash University Jerash, Jordan
Assistant Professor in the Department of Civil Engineering

Lecturer 09/2021 – 06/2025
Budapest University of Technology and Economics Budapest/ Hungary
Delivered Lectures in multiple Topics: "Traffic Engineering, Intelligent Transport Systems, Decision Making Techniques, Flight Safety, Air Transport Management, Transport Safety, Human Factor in Aviation."

Design engineer & Resident engineer 08/2019 – 09/2021
Eng.Ziad AL Hunitey engineering Office Amman/Jordan
Housing building project

Resident engineer 10/2016 – 07/2017
ABJD Architects Amman/Jordan
Residential buildings

Resident engineer 11/2015 – 10/2016
Eng.Ziad AL Hunitey engineering Office Amman/Jordan
Industrial hangar project and a housing building project

Site Engineer 08/2014 – 06/2015
Ardeal contracting company Amman/Jordan
Infrastructure projects (rainwater drainage systems and sewage discharge) and a structural commercial building belonging to the Directorate of Jordan Civil Defense.

Trainee 02/2014 – 06/2014
Khaled & Faisal Mrayat Contracting Company Tafila/ Jordan
Civil Defense Directorate construction project in Tafilah Governorate.

Skills

Programming ●●●○○
C++, SQL, Python

Microsoft Office ●●●●●

Softwares ●●●○○
Primavera, AutoCAD, Civil 3D, E-TAB, Prokon,
PTV Vissim, PTV Visum, QGIS.

Certificates

Quantity surveying by Excel Sheets
20 Hours By ETC-JEA

Manual Structural Design (Level One)
15 Hours By ETC-JEA

PROKON
20 Hours By ETC-JEA

Academic IELTs
6.5 overall

E-tabs
20 Hours By ETC-JEA

Awards

KTI-Hungarian Institute of Transport Science Project Prize 2022
The Hungarian Institute of Transport
Project Name: Assessing Transport Operators' Total Loads

Stipendium Hungaricum Scholarship 09/2021
Tempus Public Foundation
PhD in Transportation Engineering at Budapest University of Technology and Economics in 2021.

Stipendium Hungaricum Scholarship 09/2017
Tempus Public Foundation
Master's in Transportation Engineering at Budapest University of Technology and Economics in 2017

Jordanian Teacher's Children Scholarship 09/2010
The Jordanian Ministry of Education
BSc in Civil Engineering at Tafila Technical University in 2010.

Academic Activities

I served as a "Symposium Assistant" and committee member at 12 international symposiums:

- Int. Symposium on Aircraft Technology, MRO & Operations ISATECH 2021 Budapest University of Technology and Economics, Hungary, 28-30 June 2021 https://2021.isatech.org/
- Int. Symposium on Unmanned Systems and the Defense Industry ISUDEF 2021 Howard University, Washington D.C, USA, 26-28 October 2021 https://isudef.org/
- Int. Symposium on Sustainable Aviation ISSA 2021 Kasetsart University, Bangkok, Thailand, 25-27 November 2021 https://2021.issasci.org/
- Int. Symposium on Electric Aircraft and Autonomous Systems ISEAS 2021 Eskisehir Technical University - Eskisehir, Turkey, 16-18 December 2021 https://2021.iseasci.org/
- Int. Symposium on Unmanned Systems and the Defense Industry 2022 ISUDEF'22 University of Rey Juan Carlos in Madrid, Spain, May 30 and June 1, 2022, https://2022.isudef.org/
- Int. Symposium on Electric Aircraft &Autonomous Systems 2022 ISEAS'22, the University of Maribor in Slovenia, 19-21 July 2022 https://2022.iseasci.org
- Int. Symposium on Sustainable Aviation 2022 ISSA'22 RMIT University in Australia, 3-5 August 2022 https://2022.issasci.org/
- Int. Symposium on Aircraft Technology, MRO &Operations 2022 ISATECH'22, the University of Belgrade in Serbia, 14-16 September 2022 https://2022.isatech.org/

- Int. Symposium on Unmanned Systems and the Defense Industry 2023 ISUDEF'23, KTH University, Stockholm/Sweden, 07-09 June 2023, https://isudef.org/
- Int. Symposium on Electric Aircraft &Autonomous Systems 2023 ISEAS'23, Łukasiewicz – Institute of Aviation, Warsaw/Poland, 5-7 July 2023, https://2023.iseasci.org/
- Int. Symposium on Sustainable Aviation 2023 ISSA'23, National Cheng Kung University, Tainan/Taiwan, 26-28 July 2023, https://2023.issasci.org/
- Int. Symposium on Aircraft Technology, MRO &Operations 2023 ISATECH'23, Le Quy Don Technical University, Hanoi, Vietnam, 24-26 August 2023, https://2023.isatech.org/

I served as Executive Committee member at the following International Conferences:

- Int. Symposium on Energy Management and Sustainability ISEMAS 2022, Thomas More University Geel in Belgium/Piri Reis University in Istanbul/Turkey. 06-08 April 2022 https://isemas.org/
- Int. Symposium on Energy Management and Sustainability ISEMAS 2025, Piri Reis University in Istanbul/Turkey. 27-29 August 2025 https://isemas.org/

Editorial Assistant

I served as an Editorial Assistant at the International Journal of Aviation Science and Technology (IJAST) 2022-2023,
Link: https://ijast.org/editorial-board/

Project Participation

I participated and attended the ERASMUS Plus Project, 2020-3-TR01-KA205-097091-Youth Based Entrepreneurship Network of Unmanned Aerial Vehicle Industry and Technologies.

Editorial Role

Guest Editor on MDPI Drones Special Issue (SI) Titled: Skybound Surveillance: Enhancing Road Network Efficiency with Drone Inspections, 2025
https://www.mdpi.com/journal/drones/special_issues/3197Y5420C

Organisations

International Sustainable Aviation and Energy Research Society (SARES) 2021
Member

The Jordanian Engineers Association (JEA) 2014
Member

Institute of Electrical and Electronics Engineers (IEEE) 2025
Professional Membership

Journal Publications

1- Omar Alharasees, Abeer Jazzar, Utku Kale, Daniel Rohacs; Aviation communication: the effect of critical factors on the rate of misunderstandings. *Aircraft Engineering and Aerospace Technology: An International Journal* 24 January 2023; 95 (3): 379–388. https://doi.org/10.1108/AEAT-02-2022-0052

2- Utku Kale, Omar Alharasees, Jozsef Rohacs, Daniel Rohacs; Aviation operators (pilots, ATCOs) decision-making process. *Aircraft Engineering and Aerospace Technology: An International Journal* 24 January 2023; 95 (3): 442–451. https://doi.org/10.1108/AEAT-02-2022-0053

3- Abeer Jazzar, Omar Alharasees, Utku Kale; Assessment of aviation operators' efficacy in highly automated systems. *Aircraft Engineering and Aerospace Technology: An International Journal* 6 January 2023; 95 (2): 302–311. https://doi.org/10.1108/AEAT-04-2022-0098

4- Omar Alharasees and Utku Kale, Aviation Operators' Total Loads Analysis by Multi-Criteria Decision-Making, Air Transport Management Journal. 2024.102596, https://doi.org/10.1016/j.jairtraman.2024.102596 .

5- Omar Alharasees, Utku Kale, Jozsef Rohacs, Daniel Rohacs, Muller Anetta Eva, Anita Boros, Green building energy: Patents analysis and analytical hierarchy process evaluation, *HELIYON* 10 (8). , https://doi.org/10.1016/j.heliyon.2024.e29442 .

6- Omar Alharasees and Utku Kale, Applying AHP for Supplier Selection in Aviation: A Multi-Criteria Decision-Making Approach, International Journal of Sustainable Aviation, 9 (4): 293–313. , https://doi.org/10.1504/IJSA.2023.134344

7- Omar Alharasees, Utku Kale, Jozsef Rohács and Dániel Rohács, Enhancing sustainability in aviation: AHP analysis and smart energy concept, International Journal of Global Warming, 33 (1): 69–91. , https://doi.org/10.1504/IJGW.2024.138104

8-Omar Alharasees and Utku Kale, Human Factors and AI in UAV Systems: Enhancing Operational Efficiency Through AHP and Real-Time Physiological Monitoring, Journal of Intelligent & Robotic Systems 111 (1). , https://doi.org/10.1007/s10846-024-02188-y .

9- Omar Alharasees and Utku Kale, Cognitive Load Assessment for Cadet Pilots in Simulated Aircraft Environment- Pilot Study, Aircraft Engineering and Aerospace Technology, 96(7), pp.858–872. , https://doi.org/10.1108/AEAT-12-2023-0344

10- Omar Alharasees and Utku Kale, Comparative Analysis of Drivers' Vital Parameters Across Varied Driving Scenarios and Experience Levels-Pilot Study, International Journal of Transport & Health, 44, https://doi.org/10.1016/j.jth.2025.102088

11- Omar Alharasees, Utku Kale, Daniel Rohacs, Muller Anetta Eva; Towards Greener Skies: Evaluating Sustainable Aviation Fuel Alternatives, Geojournal of Tourism and Geosites, 18 (59): 551–562. https://doi.org/10.30892/gtg.59204-1436

12- Omar Alharasees, Utku Kale, Air Transport Projects Quality Assessments by Analytical Hierarchy Process (AHP), Repüléstudományi Közlemények, *2022,* 34 (2): 73–82. https://doi.org/10.32560/rk.2022.2.6 .

13- Hong-Son Tran, Truong-Thanh Nguyen, Dinh-Dung Nguyen, Omar Alharasees, Utku Kale, Improving efficiency of angular velocity sensors on aircraft, International Journal of Aviation Science and Technology 2022, https://dergipark.org.tr/en/pub/ijast/issue/74524/1118270

14- Omar Alharasees, Samer al-Rabeei, and Utku Kale, Human Factors Analysis and Classification System - AHP Drone Model Assessment, Acta Avionica Journal Vol 24, No 2 (2022), https://doi.org/10.35116/aa.2022.0030

15- Al Hasanat, Haitham A., Dania Alothman, and Omar AlHarasees. 2025. "Capacity of Single-Lane Roundabouts in Hungary." *PERIODICA POLYTECHNICA TRANSPORTATION ENGINEERING* 53 (2): 124–134. https://doi.org/10.3311/PPtr.37534

16- Chlebnikovas, Aleksandras, Dainius Paliulis, Aušra Zigmontienė, Omar Alharasees, Utku Kale, and Artūras Kilikevičius. 2025. "Exploring the Intersection of Bioreactor Technology and Hydrogen Energy: Experimental Research and Numerical Modeling." *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY* 142: 1287–1297. https://doi.org/10.1016/j.ijhydene.2025.04.145

17- Al Hasanat, Haitham A., and Omar Alharasees. The influence of geometry and connected automated vehicles on single-lane roundabout capacity. *Innovative Infrastructure Solutions.* 10, 412 (2025). https://doi.org/10.1007/s41062-025-02226-0

18- Haitham A. Al Hasanat, Ahmad B. Hassanat, Omar Alharasees, Ahmad S. Tarawneh, Ghada A. Altarawneh, Lujain A. Alhasanat & Muhamed Begović. Interpretable machine learning for imbalanced pedestrian injury severity prediction in urban Jordan. Journal of King Saud University – Engineering Sciences. 37, 39 (2025). https://doi.org/10.1007/s44444-025-00053-3

19- Haitham A. Al Hasanat, Omar Alharasees, Lafee Alshamaileh, Evaluation of vehicle lateral positioning for lane-keeping performance across multiple sites. Scientific Journal of Silesian University of Technology. Series Transport. 2025, 129, 5-25. ISSN: 0209-3324. DOI: https://doi.org/10.20858/sjsutst.2025.129.1

20- Omar Alharasees, Haitham A. Al Hasanat, and Dania Alothman. Adoption of autonomous and shared autonomous vehicles: a multi-criteria decision-making approach, International Journal of Transportation Science and Technology (2026), doi: https://doi.org/10.1016/j.ijtst.2025.09.002 .

21- Mohammad A. AlMubaidin, Omar Alharasees & Haitham A. Al Hasanat. Multi-Method Assessment of Soak Pits in Jordan: Environmental, Economic, and Public Health Implications. *Water Air Soil Pollut* 237, 598 (2026). https://doi.org/10.1007/s11270-026-09297-4

Conference Publications

1- Omar Alharasees, Evaluating Public Transport Development Projects by Multi-Criteria Methods, International Symposium on Aircraft Technology, MRO & Operations 2021 June 28-30 June 2021, ISATECH 2021, 6P, Budapest, Hungary), https://doi.org/10.1007/978-3-031-38446-2_11 .

2- Utku Kale, Omar Alharasees, Fanni Kling, Daniel Rohacs, Objective Measurement of Human Factors for Supporting the Operator's Load Simulation and Management, ICAS-2021 The International Council of The Aeronautical Sciences, ISBN: 978-3-932182-91-4, September (6-10) 2021 in Shanghai, China, ISBN 978-393218291-4

3- Omar Alharasees, Abeer Jazzar, and Utku Kale, Misunderstandings in Aviation Communication, ISEAS 2021 International Symposium on Electric Aviation & Autonomous Systems, December 16 – 18, 2021, Eskisehir Technical University, Turkey, https://doi.org/10.1007/978-3-031-32639-4_18 .

4- Abeer Jazzar, Omar Alharasees, Utku Kale, Automation Level Impact on the Operators' (Pilot, Air Traffic Controller) Role and Total Loads, ISEAS 2021 International Symposium on Electric Aviation & Autonomous Systems, December 16 – 18, 2021, Eskisehir Technical University, Turkey, https://doi.org/10.1007/978-3-031-32639-4_20 .

5- Utku Kale, Omar Alharasees, Jozsef Rohács and Dániel Rohács, Subjective Decision-Making of Aviation Operators (Pilots, Atcos), ISEAS 2021 International Symposium on Electric Aviation & Autonomous Systems, December 16 – 18, 2021, Eskisehir Technical University, Turkey, https://doi.org/10.1007/978-3-031-32639-4_9 .

6- Omar Alharasees, Utku Kale, Evaluating Total Load of Aviation Operators by Analytical Hierarchy Process (AHP), International Symposium on Sustainable Aviation (ISSA) 2021, 25 – 27 November 2021, Kasetsart University, Thailand, https://doi.org/10.1007/978-3-031-37943-7_46 .

7- Dung D. Nguyen, Omar Alharasees, and Utku Kale, Drones Models in Urban Transport (New Concepts Integration), International Symposium on Energy Management and Sustainability (ISEMAS) 2022, https://doi.org/10.1007/978-3-031-30171-1_73 .

8- Dung D. Nguyen, Omar Alharasees, Utku Kale, Munevver Ugur, and Tahir Hikmet Karakoc, Drones GIS System in Urban Transport, International Symposium on Energy Management and Sustainability (ISEMAS) 2022, https://doi.org/10.1007/978-3-031-30171-1_78 .

9- Omar Alharasees and Utku Kale, Assessment of UAV Operators by Human Factors Analysis and Classification System (HFACS) based on AHP, International Symposium on Unmanned Systems and the Defense Industry (ISUDEF 2022), May 30 – June 1, 2022, https://doi.org/10.1007/978-3-031-37160-8_38 .

10- Omar Alharasees and Utku Kale, Transport Operators Total Load Comparison by Analytical Hierarchy Process (AHP), The International Symposium on Electric Aviation and Autonomous Systems (ISEAS) 2022, University of Maribor, Slovenia, 2022 July 19-21, https://doi.org/10.1007/978-3-031-37299-5_7 .

11- Omar Alharasees and Utku Kale, Evaluation of Air Transport Projects Development by (AHP), The International Symposium on Sustainable Aviation (ISSA) 2022, RMIT University, Melbourne, Australia, 2022 August 3-5, https://doi.org/10.1007/978-3-031-33118-3_8 .

12- Omar Alharasees, Dániel Rohács, and Utku Kale, Aviation MRO Operators Assessment by SHELL Model, The International Symposium on Aircraft Technology, MRO & Operations (ISATECH) 2022, University of Belgrade, Serbia, 2022 September 14-16, https://doi.org/10.1007/978-3-031-42041-2_20 .

13- Omar Alharasees, Muftah S.M. ABDALLA, Utku Kale, Analysis of Human Factors Analysis and Classification System (HFACS) of UAV Operators, New Trends in Aviation Development 2022 (NTAD 2022), November 24 – 25, 2022 / The High Tatras – Nový Smokovec, Slovakia, https://doi.org/10.1109/NTAD57912.2022.10013492

14- Omar Alharasees, Osama H. Adali, and Utku Kale, Comprehensive Review on Aviation Operator's Total Loads, New Trends in Aviation Development 2022 (NTAD 2022), November 24 – 25, 2022 / The High Tatras – Nový Smokovec, Slovakia, https://doi.org/10.1109/NTAD57912.2022.10013609

15- Omar Alharasees, Osama H. ADALI, and Utku KALE Human Factors in the Age of Autonomous UAVs: Impact of Artificial Intelligence on Operator Performance and Safety, The International Conference on Unmanned Aircraft Systems, June 6-9, 2023, Lazarski University, Warsaw, Poland (ICUAS '23), https://doi.org/10.1109/ICUAS57906.2023.10156037

16- Omar Alharasees, Muftah S.M. ABDALLA, Utku Kale, Evaluating AI-UAV Systems: A Combined Approach with Operator Group Comparison, International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA '23), June 8-10, 2023 - Istanbul, Turkey, https://doi.org/10.1109/HORA58378.2023.10156755

17- Omar Alharasees and Utku Kale, Comparative Analysis of AI-Supported Drone Operations: Evaluating Critical Aspects among Pilot Groups, International Symposium on Unmanned Systems: AI, Design and Efficiency (ISUDEF 23), KTH Royal Institute of Technology, Stockholm, Sweden, 7 – 9 June 2023, https://doi.org/10.1007/978-3-031-62094-2_2

18- Omar Alharasees and Utku Kale, Selection of Sustainable Aviation Fuels: An Expert-Based Comparative Approach, International Symposium on Sustainable Aviation (ISSA 23), National Cheng Kung University, Taiwan, 26 – 28 July 2023. https://doi.org/10.1007/978-3-031-70694-3_9

19- Omar Alharasees, Utku Kale, Rohács, József, Dániel Rohács, Adaptation of Smart Energy Map to Transportation Domain: A Case Study to Small Airfield Buildings and Other Infrastructures, International Symposium on Electric Aviation and Autonomous Systems (ISEAS 23), Lukasiewicz institute of aviation, Warsaw, Poland, July 5 – 7, 2023. Cham. https://doi.org/10.1007/978-3-031-62094-2_22

20- Omar Alharasees, Utku Kale, Rohács, József, Dániel Rohács, Renewable Energy Systems for Airports and Aerodromes: A Patent Review and Technological Analysis, International Symposium on Electric Aviation and Autonomous Systems (ISEAS 23), Lukasiewicz institute of aviation, Warsaw, Poland, July 5 – 7, 2023. https://doi.org/10.1007/978-3-031-62094-2_21

21- Omar Alharasees, Muftah S.M. ABDALLA, Utku Kale, Digitalization in Aviation MRO Training, New Trends in Aviation Development 2023, November 23 – 24, 2023, Pp 10-14, https://doi.org/10.1109/NTAD61230.2023.10380173

22- Omar Alharasees, Osama H. Adali, and Utku Kale, UAV Operators' Cognition and Automation: Comprehensive Measurements, New Trends in Aviation Development 2023, November 23 – 24, 2023, Pp 15-20, https://doi.org/10.1109/NTAD61230.2023.10379886

23- Omar Alharasees, Serdar Sanli, Utku Kale, Evaluating Sustainable Aviation Fuels: A Comparative Analysis of Expert Groups, The 14th International Exergy, Energy and Environment Symposium (IEEES-14), Piri Reis University, Tuzla, Istanbul, Türkiye. http://dx.doi.org/10.5281/zenodo.10694076

24- Omar Alharasees, Serdar Sanli, Utku Kale, Hydrogen-Powered Aviation: Shaping Sustainable Future Skies, The 14th International Exergy, Energy and Environment Symposium (IEEES-14), Piri Reis University, Tuzla, Istanbul, Türkiye. http://dx.doi.org/10.5281/zenodo.10693955

25- Omar Alharasees and Utku Kale, Adaption of Fuel-Cell Energy in Aviation Infrastructure, The 14th International Exergy, Energy and Environment Symposium (IEEES-14), Piri Reis University, Tuzla, Istanbul, Türkiye. http://dx.doi.org/10.5281/zenodo.10694120

26- Omar Alharasees, Farzad Zolfaghari, and Utku Kale, Comprehensive Analysis of Advanced Display and Control Systems for eVTOL Aircraft, The 6th Global Power, Energy and Communication Conference, GPECOM2024, Budapest, Hungary, https://doi.org/10.1109/GPECOM61896.2024.10582627

27- Farzad Zolfaghari, Omar Alharasees, and Utku Kale, AI-powered Prediction Drives Hungarian Renewable Energy Integration, The 6th Global Power, Energy and Communication Conference, GPECOM2024, Budapest, Hungary, https://doi.org/10.1109/GPECOM61896.2024.10582633

28- Farzad Zolfaghari, Györgyi Kale-Halasz, Omar Alharasees, and Arturas Kilikevicius. Application of Deep Learning Models for Predicting Health Alerts in Pilots, CogMob 2024 (3rd International Conference on Cognitive Mobility), https://doi.org/10.1007/978-3-031-81799-1_41

29- Eleimat, Mahmoud, Omar Alharasees, and Arnold Oszi. 2024. “Advancements in Airport Security Technologies: A Patent Analysis.” In *Proceedings of the 2024 1st Edition of the Mediterranean Smart Cities Conference, MSCC 2024*. https://doi.org/10.1109/MSCC62288.2024.10696990

30- Al Hasanat, Haitham A., Omar Alharasees, and Dania Alothman. 2024. “Connected Automated Vehicles Entry Capacity on Roundabouts- Case Study Hungary.” In *2024 2nd International Conference on Technology Innovation and Its Applications (ICTIIA)*. https://doi.org/10.1109/ICTIIA61827.2024.10761405

31- Omar Alharasees, Haitham A. Al Hasanat, and Dania Alothman. 2024. “Public Perception of Autonomous and Shared Autonomous Vehicles: Case Study of Amman.” In *2024 2nd International Conference on Technology Innovation and Its Applications (ICTIIA)*. https://doi.org/10.1109/ICTIIA61827.2024.10761581

32- Omar Alharasees, Haitham A. Al Hasanat, and Rana Al-Matarneh. 2025. “A Comprehensive Human Factors Approach to Pedestrian Accidents Analysis in Urban Environments.” In *2025 2nd International Conference on Advanced Innovations in Smart Cities (ICAISC)*. https://doi.org/10.1109/ICAISC64594.2025.10959468

33- Omar Alharasees, Utku Kale, (2026). Examining Heart Rate Variability in Unmanned Aerial Vehicle Operator Automation. In: Karakoc, T.H., Abdullayev, K., Dalkiran, A., Mirzayev, F., Aghayev, E., Cinoğlu, B. (eds) Research and Updates on the Use of Artificial Intelligence in Drone Technology. ISUDEF 2024. Sustainable Aviation. Springer, Cham. https://doi.org/10.1007/978-3-032-07678-6_21

34- O. Alharasees, F. Zolfaghari, A. Kilikevičius and U. Kale, "Integrating PEAR-Based Human Factors Assessment with SEM-AHP for AI-Assisted UAV Operations," *2025 New Trends in Aviation Development (NTAD)*, Stary Smokovec, Slovakia, 2025, pp. 11-16. https://doi.org/10.1109/NTAD67887.2025.11302666 .

35- F. Zolfaghari, O. Alharasees, A. Kilikevičius and U. Kale, "Adaptive Pilot Monitoring: Unsupervised Artifact Detection and Atypical State Identification in Multimodal Physiological Signals," *2025 New Trends in Aviation Development (NTAD)*, Stary Smokovec, Slovakia, 2025, pp. 346-351. https://doi.org/10.1109/NTAD67887.2025.11302625 .

36- Alharasees, O., Kilikevičius, A., Kale, U. (2026). Strategic Evaluation of Urban Electric Vehicles Charging Infrastructure in Budapest Using Integrated Multi-Criteria Methods. In: Zöldy, M., Szászi, I., Balasubramanian, D., Török, Á. (eds) Proceedings of the 4th Cognitive Mobility Conference. COGMOB 2025. Lecture Notes in Networks and Systems, vol 1768. Springer, Cham. https://doi.org/10.1007/978-3-032-13898-9_34

37- Alharasees, O., Kilikevičius, A., Kale, U. (2026). Real-Flight Monitoring of Vital Physiological Parameters in Pilots: Implications for Performance, Training, and Safety in Aviation. In: Zöldy, M., Szászi, I., Balasubramanian, D., Török, Á. (eds) Proceedings of the 4th Cognitive Mobility Conference. COGMOB 2025. Lecture Notes in Networks and Systems, vol 1768. Springer, Cham. https://doi.org/10.1007/978-3-032-13898-9_33 .

38- Omar Alharasees & Utku Kale. Exploring the Efficacy of VR/Haptic Technologies in Elevating Aviation Training and Simulation. In: Karakoc, T.H., *et al.* Operations and Training in MRO. ISATECH 2023. Sustainable Aviation. Springer, Cham. https://doi.org/10.1007/978-3-031-71085-8_52

39- Omar Alharasees & Utku Kale. Revolutionizing Aviation MRO Training: Exploring the Impact of Digitalization. In: Karakoc, T.H., *et al.* Operations and Training in MRO. ISATECH 2023. Sustainable Aviation. Springer, Cham. https://doi.org/10.1007/978-3-031-71085-8_59

Book Chapters

1- Utku Kale; Omar Alharasees; Jozsef Rohács, Vehicle Drivers’ Load Monitoring and Management (Book Chapter), In: Rohács, József (Eds.) Total Transport Management In Smart Cities, Bp, Hungary: Budapesti Műszaki Egyetem (2020) Paper, 264 P.

2- Omar Alharasees, Utku Kale, Daniel Rohacs, Advancing Sustainable Aviation: Integration of Emerging Energy Technologies in Aviation Infrastructure, Springer Book Chapter-Green Energy and Technology, https://doi.org/10.1007/978-3-031-68497-5_29

3- Omar Alharasees & Utku Kale. Evaluating Criteria for Sustainable Aviation Fuel Adoption. In: Sogut, M.Z. (eds) The Role of Exergy and Energy in Sustainability. Green Energy and Technology. Springer, Cham. https://doi.org/10.1007/978-3-031-89869-3_17

4- Nguyen, D.D., Alharasees, O., Kale, U., Trinh, N.H. (2026). Integrating UAS into Smart City Transportation Systems: A Primary Study. In: Sogut, M.Z., Karakoc, T.H., Secgin, Ö. (eds) Energy Management, Volume One. Green Energy and Technology. Springer, Cham. https://doi.org/10.1007/978-3-031-94536-6_21