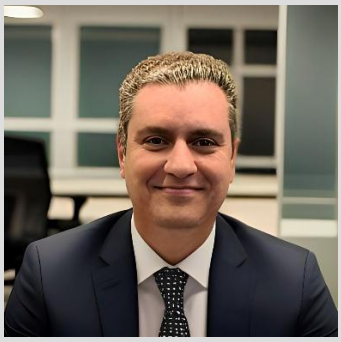

Ali Pirdavani

PROFESSOR
Hasselt University, Faculty of Engineering Technology & Transportation Research Institute (IMOB)
DOB: 11.11.1980
Nationality: Iranian/Belgian
Gender: M

BACKGROUND

Ali Pirdavani is a Professor at Hasselt University, specializing in road safety, transportation infrastructure, and automated vehicles. He earned his Ph.D. in Transportation Sciences in 2012 from Hasselt University, following a Master's degree in Road & Transportation Engineering (2007) and a Bachelor's degree in Civil Engineering (2004). After completing his doctoral research, he was awarded a prestigious postdoctoral fellowship from the Research Foundation – Flanders (FWO), where he focused on crash modeling and road safety impact assessments.

His academic career has been dedicated to investigating advanced methodologies for transportation safety, including AI-based road safety solutions and infrastructure adaptation for automated mobility. He has led and participated in numerous national and European research projects, such as AI for Vision Zero in Road Safety (IVORY) and Connected and Adaptive Maintenance for Safer Urban and Secondary Roads (CAMBER). With more than 60 journal articles and over 40 conference presentations, his research has a significant impact on both academic discourse and practical policy applications.

Ali Pirdavani's work has garnered significant recognition, with his Google Scholar profile reflecting over 2,000 citations and an h-index of 26, underscoring his impact in the field. He holds editorial roles for the journals Advances in Transportation Sciences, KSCE Journal of Civil Engineering, Promet - Traffic&Transportation, and Sustainability, reinforcing his standing as a key figure in the field.

CONTACT

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SKILLS

Driving simulation
Road safety analysis
Digitalization in road design
Crash prediction modeling
Road infrastructure and automated vehicles
Road engineering
Project management

EDUCATION

2008 – 2012
Transportation Sciences, Hasselt University, Hasselt, Belgium

2004 – 2007
Civil Engineering – Road and Transportation Engineering, IAU University, Tehran, Iran

WORK EXPERIENCE

Academic experience

Ali has been affiliated with Hasselt University since 2008, progressing from researcher to faculty member within the Faculty of Engineering Technology and the Transportation Research Institute (IMOB). Since January 2026, he has held the position of Professor, with a focus on road design, traffic safety, traffic engineering, and infrastructure sustainability.

His work balances academic research, teaching, and industry collaboration. As a principal investigator in multiple funded projects, he has contributed to studies on automated vehicle integration, data-driven crash analysis, and sustainable road infrastructure. His expertise has shaped policies on road safety and urban mobility, with a particular focus on data-driven decision-making and the integration of AI in transportation.

Teaching remains a crucial aspect of his role. He lectures on transportation infrastructure, pavement design and sustainability, and road safety evaluation.

Other professional experience

In addition to his academic responsibilities, Ali actively participates in professional organizations and international collaborations. He has supervised numerous Ph.D. students, guiding research on transportation safety, infrastructure design, and sustainable mobility. More information about his supervised Ph.D. students can be found here.

Ali has also served as a reviewer for top-tier journals, including Accident Analysis & Prevention, Traffic Injury Prevention, and Transportation Research Part F. As a frequent speaker at conferences, he shares insights into the design of infrastructure for connected vehicles and sustainable mobility. His contributions to international projects, including partnerships with the University of Zagreb, Croatia, and TU Delft, the Netherlands, further emphasize his commitment to advancing road safety research. His excellence in the field has been recognized through awards, competitive research grants, and invitations to high-profile policy discussions on transportation safety.

PROJECTS

A link to Ali Pirdavani's complete project portfolio is available here.

Four of the most recent projects are listed below:

IVORY - AI for Vision Zero in Road Safety

Period: 01.11.2023 – 31.10.2027

Partners: Hasselt University (BE), Delft University of Technology (NL), Ethnicon Metsovion Polytechnion (GR), Sveuciliste u Zagrebu Fakultet Prometnih Znanosti (CR), Oseven Single Member Private Company (GR), Agilysis Limited (UK), International Road Assessment Programme (UK), Psa Automobiles Sa (FR), Cegeka nv (BE), Abeonaconsult (BE), Cardioid Technologies Lda (PT), Haskoningdhv Nederland bv (NL), Netherlands Organisation for Applied Scientific Research TNO (NL), Fred Engineering Srl (IT), Evropski Institut za Ocenjevanje Cest - Eurorap (SL), Traffic Injury Research Foundation Of Canada (Canada), Groupement d'interet economique derecherches et d'études psa Renault (FR), Instituto Superior de Engenharia de Lisboa (PT), West Midlands Combined Authority (UK), SWECO Belgium (BE)

Role in the project: Supervisor of a PhD student in the network

Budget: €3,335k – for UHasselt: €499k

Type of client: public

Client: European Commission (Horizon-MSCA-2022)

CAMBER - Connected and Adaptive Maintenance for Safer Urban and Secondary Roads

Period: 01.01.2025 – 31.12.2027

Partners: Hasselt University (BE), European Institute of Road Assessment (SI), International Road Assessment Programme (UK), Stichting Wetenschappelijk Onderzoek Verkeersveiligheid (NL), Laboratório Nacional de Engenharia Civil (PT), AIT Austrian Institute of Technology GmbH (AT), University of Zagreb, Faculty of Transport and Traffic Sciences (HR), Erevnitiko Panepistimiako Institouto Systimaton Epikoinonion kai Ypologiston (EL), Agilysis (UK), Be-Mobile (NL), Fundacion Centro de Tecnologias de Interaccion Visual y Comunicaciones Vicomtech (ES), European Road Transport Telematics Implementation Coordination (BE), e-Trikala (EL), Ministerio de Transportes, Movilidad y Agenda Urbana (ES).

Role in the project: Coordination activities of IMOB in the project – work package leader and task leader for several research-oriented tasks

Budget: €3.952k – for UHasselt: €422k

Type of client: Public

Client: European Commission (Horizon Europe)

TWIN-SAFE: Advancing Road Safety Through Twinning

Period: 01.02.2024 – 31.01.2027

Partners: Hasselt University (BE), University of Zagreb, Faculty of Transport and Traffic Sciences (HR), Lund University (SE)

Role in the project: project co-worker

Budget: for UHasselt: €427k

Type of client: Public

Client: European Commission (Horizon Europe – Twinning Programme)

RMSF – Road markings and road signs for the future

Period: 01.12.2020 – 09.02.2023

Partners: Hasselt University (BE), University of Zagreb, Faculty of Transport and Traffic Sciences (HR), AKKA Technologies (BE), Graz University of Technology (AT)

Role in the project: Partner, responsible for human factors research and cost-benefit analysis

Budget: €150k – for UHasselt: €50k

Type of client: Public

Client: European Commission – DG MOVE

ACADEMIC BIBLIOGRAPHY

For a complete overview of publications, please visit this link.

Five most relevant academic publications:

Pirdavani, Ali; Sadeqi Bajestani, Mahdi; Mantels, Maarten; Spooren, Thibaut. A Driving Simulator-Based Assessment of Traffic Calming Measures at High-to-Low Speed Transition Zones. In: Smart Cities, 8, 5, 2025, Art. 147, DOI: https://doi.org/10.3390/smartcities8050147

Pirdavani, Ali; Sadeqi Bajestani, Mahdi; Bunjong, Siwagorn; Delbare, Lucas. The Impact of Perceptual Road Markings on Driving Behavior in Horizontal Curves: A Driving Simulator Study. In: Applied Sciences, 15, 8, 2025, Art. 4584, DOI: https://doi.org/10.3390/app15084584

Ahmed, Tufail; **Pirdavani, Ali;** Wets, Geert; Janssens, Davy. Bicycle Infrastructure Design Principles in Urban Bikeability Indices: A Systematic Review. In: Sustainability, 16, 6, 2024, Art. 2545, DOI: https://doi.org/10.3390/su16062545

Tafidis, Pavlos; Farah, Haneen; Brijs, Tom; **Pirdavani, Ali.** Safety Implications of Higher Levels of Automated Vehicles: A Scoping Review. In: Transport Reviews, 42, 2, 2022, p. 245-267, DOI: https://doi.org/10.1080/01441647.2021.1971794

Hussain, Qinaat; Alhajyaseen, Wael; Reinolsmann, Nora; Brijs, Kris; **Pirdavani, Ali;** Wets, Geert; Brijs, Tom. Optical pavement treatments and their impact on speed and lateral position at transition zones: A driving simulator study. In: Accident Analysis and Prevention, 150, 2021, Art. 105916, DOI: https://doi.org/10.1016/j.aap.2020.105916