
Irish Transport Research Network (ITRN) Annual Conference 2025

Theme: *Sustainable and Resilient Transport Futures*

Dates: May 28th & 29th, 2025

Venue: Museum Building, Trinity College Dublin



The Irish Transport Research Network 2025 is sponsored by the Irish Department of Transport.



The ITRN Committee wishes to express our appreciation to the Department for supporting the conference.

Draft Conference Programme (subject to change)

Day 1: Wednesday, May 28th

Time	Track A	Track B	Track C
9:15-10:30	Keynote Address: Prof F. Pilla (Location M17)		

Time	Track A	Track B	Track C
10:30-11:00	Coffee Break		
11:00-12:30	Session 1A: Public Transport & Accessibility	Session 1B: Transport Policy & Planning	Session 1C: Aviation & Maritime Transport
	<i>Accessibility-based community vulnerability assessment to bridge failure: a spatial analysis of socio-economic impacts – Amaya Vega, Myra Lydon & Emma Fitzpatrick</i>	<i>An Irish Transport Perspective on Reference Class Forecasting – Joseph O'Connor & Andrew Burrows</i>	<i>Irish & UK Aviation in 2025: An Assessment of the Pandemic Impacts – Aisling Reynolds-Feighan</i>
	<i>Weather Impacts on Punctuality and Reliability: Evidence from Irish Regional Bus Services – Peter Lennon & Julie Clarke</i>	<i>Understanding Public Transport Non-Users – William Brazil</i>	<i>A preliminary technical evaluation of electrified island ferry services in Ireland – Nathan Gray, Richard O'Shea, David Wall & Jerry Murphy</i>
	<i>On Track for Transformation: Assessing Demand and Simulating Feasibility for Rail Commuting in the Northwest as a Tool for Climate Action and Regional Growth – Holly Briere-Edney & Brian McCann</i>	<i>The Coach Tourism and Transport Council of Ireland (CTTC) submission advocates for strategic policy interventions to encourage a modal shift towards bus transport – William Martin</i>	<i>The Economic Cost of Congestion in Ireland's Regional Cities 2022-2040 – Yeonjung Song, Rory Duggan & David Maher</i>

Time	Track A	Track B	Track C
	<i>Understanding Rail Patronage in Ireland using the National Rail Census 2024</i> – Brendan Meskell	<i>Rural Mobility in Transition: Evaluating Public Transport Expansion and Car dependency in Roscommon, Ireland</i> – Peadar Ó Súilleabháin, Thomas Bibby, Roy Harford, Páraic Carroll, John Nott & Barry Colleary	<i>Mobility Outdoor Value Estimates (MOVE)</i> – Felim Kelly
	<i>Gender Analysis in the National Household Travel Survey</i> – Karen Whitaker, Brendan Meskell, Supritha Subramanian	<i>Understanding Car Ownership: A review and data analysis in support of the NTA's model update</i> – Warren Whitney, Ian Burden, Wen Zhang & Barry Colleary	
12:30-13:30	Lunch Break		
13:30-15:00	Session 2A: Urban Transport & Accessibility	Session 2B: Climate Resilience & Decarbonisation	Session 2C: Health & Well-being in Transport
	<i>Evaluating Multimodal Accessibility in Dublin Through a 15-Minute City Lens</i> – Belal Edries, Brian Caulfield & Vinny Cahill	<i>An IMO GHG Pricing Mechanism: Legal Challenges and Opportunities Ahead</i> – Goran Dominioni	<i>Using physiological stress to evaluate cycling infrastructure – an overview of the SHIFT project</i> – Anna Molter, Nakisa Soltani, Peter Kearney, Sonia Soubam & Brian Caulfield
	<i>A Visual-Built Environment Approach to Assessing Commuters'</i>	<i>An economic assessment of e-methanol fuel production for shipping</i>	<i>Physical activity levels and transportation factors of students in Trinity College Dublin</i> – Cuisle

Time	Track A	Track B	Track C
	<i>Perceived Safety at Bus Stops – Apoorv Agrawal, Francesco Pilla & Anna Mälter</i>	<i>using biogenic CO2 and direct air carbon capture – Asif Tanvir Bhuiya, Nathan Gray, Yunfei Li & David M. Wall</i>	Forde, Sanela Begic, Vera Lee, Ithnan Roberts, Michael Kelly & Claudia Gosalvez
	<i>Leveraging Large Language Models for Citizen-Centric Urban Accessibility Analysis: A Case Study Using Airbnb Reviews in Dublin – Mehdi Gholamnia, Nasim Eslamirad & Francesco Pilla</i>	<i>A perspective on three sustainable hydrogen production technologies with a focus on technology readiness level, cost of production, and life cycle environmental impacts – Yunfei Li, David Wall & Nathan Gray</i>	<i>Adopting a Well-being Approach to Assessing Climate Action in The Transport Sector – David Maher & Kyle Moore</i>
	<i>Enhancing Perceived Safety in Urban Public Transport: An Assessment of Key Measures and Passenger Concerns – Ajeni Ari, Lorraine D'Arcy, Maria Chiara Leva & Mary Kinahan</i>	<i>Economic Costing Study of Climate Change Impacts on Transport Networks in Ireland – Benjamin Obe, Clement Kwekukyei, Julie Clarke & Kelly Debruin</i>	<i>ISCycle: Examining an ebike loan intervention on transport behaviour in an urban area in Ireland – James Green, Louise Foley, Anna Barrero, Yvonne Ryan-Fogarty, Catherine Woods, Colin Fitzpatrick & Cathal Walsh</i>
	<i>Revolutionising Transport Noise Mapping: Citizen Participation and Big Data – Enda Murphy & Eoin King</i>	<i>Assessment of embodied carbon during the construction phase of road infrastructure projects in Ireland – Ronan Keane & Brian McCann</i>	<i>Integrating Generative AI into Street Experimentation: A Critical Framework for Urban Design Education – Caterina Villani</i>
15:00-15:30	Coffee Break		

Time	Track A	Track B	Track C
15:30-17:00	Session 3A: Technology & Innovation in Transport	Session B: Safety & Risk Assessment	Session 3C: Emerging Research & Case Studies
	<i>Automated Pavement Condition Assessment: A Deep Learning Framework for Segment-Based PSCI Ratings – Waqar Shahid Qureshi, David Power, Ibrahim Syed & Kieran Feighan</i>	<i>Impacts of Traffic Accident and Crash Costs in Severity Level Analysis – Debela Jima & Tipor Sipos</i>	<i>A Cloud based Analytics Platform for Sustainable and Resilient Supply Chains – Cemalettin Ozturk, Reza Babazadeh, Conor Mulvey, Alex Vakaloudis & Barry O'Sullivan</i>
	<i>Automated Speed Limit Sign Detection and Recognition: Large-Scale Testing on the Irish Regional Road Network – Ibrahim Hassan Syed, David Power, Waqar Shahid Qureshi & Kieran Feighan</i>	<i>Examining Algorithmic Bias in Pedestrian Detection Networks – Clara Killeen & Shane Gilroy</i>	<i>A study to identify the key factors shared by successful cities with effective active travel networks – Gerna Van Jaarsveld</i>
	<i>Assessing Pavement Surface Type Through AI: A Study on Pavement Surface Classification – Ibrahim Hassan Syed, David Power & Kieran Feighan</i>	<i>Improving Pedestrian Safety with Spatial Data & Scoring-Based Optimisation Models – Patrick Ballantyne, Carmen Cabrera-Arnau, Giada Garofani & Alex Singleton</i>	<i>Analyzing the Effects of Combining the International Roughness Index with Visual Inspection for cycleway pavement assessment – Muhammad Hassam Baig, Syed Muhammad Haider Shah, Saahil Khanna, Gerard O'Dea, David Power, Lorraine D'Arcy, Katleen Bell-Bonjean, Waqar Shahid Qureshi & Ihsan Ullah</i>

Time	Track A	Track B	Track C
	<i>The effects of connected autonomous vehicles on the resilience of transportation networks under disruptive events: a scoping review</i> – Josue Ortega, Beatriz Martinez-Pastor & Rui Teixeira	<i>A typology of cyclist collisions from Police Collision reports and ambulance data</i> – Niamh O'Reilly	<i>Migrating to Move: Sludge Audits for Irish Employment Permit Policy and Public Transportation</i> – Philip Jeremiah Ryan
	<i>Recent Advances in Vertical Axis Wind Turbines for Sustainable Highway Energy Generation</i> – Meisam Gordan & Abdollah Malekjafarian	<i>Assessing the Impact of Cycle Lanes on Emergency Response Times: A Case Study of Limerick City</i> – Muhammad Huzaifa Butt & Ross Higgins	The Impacts of Driver Assist Technologies and Older Adults' Driving Patterns and Behaviours - Tom Hall, Sanela Begic, David Mockler, Melaine Bourouche, Cuisle Forde and Tadhg Stapleton
19:00	Conference Dinner (Location: Fallon & Byrne)		

Day 2: Thursday, May 29th

Time	Track A	Track B	Track C
9:00-10:30	Session 4A: Freight & Logistics	Session 4B: Data & Modelling in Transport	Session 4C: Electric & Alternative Fuels
	<i>Archetypal Insights to Decarbonise Heavy Goods Vehicles: A Case Study of Ireland's Haulage and Freight Sectors – Ayodeji Adekanbi & James Carton</i>	<i>A Data-Driven Framework for Analysing and Mitigating Motorcycle Crash Hotspots in Florida, USA – Debabrata Paul, Mohaimin Azmain & Hm Nayem</i>	<i>Insights from a discrete choice experiment on electric light commercial vehicle adoption by Irish small and medium enterprises – Nadiya Saba, Lisa Ryan & Aisling J. Reynolds-Feighan</i>
	<i>A Systematic Literature Review: Heavy Goods Fleet Replacement under Sustainability Considerations – Qichen Li & Paula Carroll</i>	<i>Synthetic Population Generation for Dublin Using Iterative Proportional Techniques – Belal Edries, Brian Caulfield & Vinny Cahill</i>	<i>Evaluating the Impact of the TRACT EV App on Electric Vehicle Adoption in Ireland: Insights from Behavioural Change Trials – Ubaid Illahi, Tushar Pramod Choudhari, Brian Caulfield & Margaret O'Mahony</i>
	<i>ECONOMIC IMPACT OF EU INITIATIVES FOR ALTERNATIVE FUEL TRANSITION IN THE IRISH MARITIME INDUSTRY – Alina Kovalenko, Kamalakkannan Sivappirakasam, Patrick Rigot-Muller & Joseph Coughlan</i>	<i>Utilising Automatic Vehicle Location (AVL) Data to Investigate the Impact of New Residential Developments on the Operation of BusConnects Services in the Greater Dublin Area – Brianna Greaney, Dhruv Kadam & John Quinless</i>	<i>Shifting to Sustainable Mobility: Analysing User Interest in Mobility Hubs in Dublin – Tushar Pramod Choudhari, Ubaid Illahi, Brian Caulfield & Margaret O'Mahony</i>

Time	Track A	Track B	Track C
	<i>Assessing Green Shipping Corridor Potential in Ireland: A Prefeasibility Study</i> – Kamalakkannan Sivappirakasam, Alina Kovalenko, Patrick Rigot-Muller & Joseph Coughlan	<i>Modelling the Integration of Mobility-as-a-Service to create a Sustainable non-urban Transport System</i> – Jack McShane, Eoghan Furey, Marion McAfee, Leo Creedon & Padraig Gallagher	<i>Sligo Coastal Mobility Route Selection and Design Evaluation</i> – Dr Brian McCann, Holly Briere-Edney, Stephen Gallagher, Gavin Browne, Caolan Harkin, Mark Wrafter & Ken Russell
	<i>Life Cycle CO2e Intensity of Commercial Aviation Scenarios with Specific Sustainable Aviation Fuels</i> – Aron Bell, Liam A. Mannion, Mark Kelly, Mohammad Reza Ghaani & Stephen Dooley	<i>Forecasting Demand Changes from Cycling Investments</i> – William Brazil & David Conlon	<i>Exploring Factors Influencing Students' Travel Mode Choice: Comparative Insights of Two University Campuses</i> – Tommy Coyne & Ubaid Illahi
10:30-11:00	Coffee Break		
11:00-12:30	Session 5A: Sustainable Mobility & Active Travel	Session 5B: Infrastructure & Road Networks	Session 5C: CONUNDRUM Workshop
	<i>Cycling as Traffic: The Importance of a Transport Planning Discourse for Cycling in Ireland</i> – Robert Egan & Brian Caulfield	<i>Condition Assessment and Maintenance Interventions: An Analysis of Ireland's Regional Roads (2020-2023)</i> – Eimear Walsh	Stakeholder workshop on the Research Ireland funded CONUNDRUM project
	<i>Providing, Confining, and Fostering Mobility: The E-Cargo Bike as a Family</i>	<i>Examining the use of Porous Asphalt on Irish National Roads</i> – James Stretton & Brian McCann	

Time	Track A	Track B	Track C
	<i>Vehicle in Ireland</i> – Robert Egan, Hannah Julienne & Brian Caulfield		
	<i>Active travel to school: Analysing the importance of locational and sociodemographic factors and associated policy implications in Dublin, Ireland</i> – Kevin Credit & Joanne Mancini	<i>Developing pavement quality metrics for cycle paths and greenways</i> – Louise Mahoney, Eoghan Clifford, Brian Mulry, Kieran Feighan & Joe McHale	
	<i>Cycling to School: Investigating Parental (and Prospective Parental) Perceptions and Student Travel Behaviour in Ireland</i> – Rafael Costa Dionisio, Robert Egan & Ubaid Illahi	<i>Assessing the Impacts of the N22's Bypass of Macroom</i> – Kelly McCarthy	
	<i>Is some Irish active travel funding having an opposing effect?</i> – Shane Foran	<i>CRANN - Developing Climate Resilient Networks of Bridges</i> – Myra Lydon, Maria Pregnotato, Darragh Lydon & Kristopher Campbell	
12:30-13:30	Lunch Break		
13:30-14:30	Closing Plenary: Transport Research in Ireland – panel discussion		

