itsaustralia

Roads, Tolling & Tech 2025

10–11 April 2025
Rydges Hotel
Melbourne / Naarm

Thursday 10 April 2025

8:00 – 9:00	REGISTRATION & ARRIVAL BARISTA COFFEE / TEA Name Badge Collection

Welcome to Country Ceremony
ITS Australia acknowledges the Wurundjeri Woi-Wurrung and Bunurong / Boon Wurrung peoples of the Kulin nation (the land now known as Melbourne City).

9:00 – 10:30 OPENING PLENARY SESSION 1

Our opening plenary will feature an official welcome from ITS Australia as Conference Host and the Victorian Department of Transport and Planning as Host State Partner.

MODERATOR
Niloo Karimi Director Transport Systems, Department of Transport and Planning Victoria

OPENING KEYNOTE ADDRESS
Jason Owusu Chief Data & Digital, Department of Transport and Planning Victoria

KEYNOTE ADDRESS
Andrew Newman Director Ports, Freight and Intermodal, Department of Transport and Planning Victoria

North East Link Victoria Major Project Update
Zoltan Maklary Director Tolling, North East Link State Tolling Corporation
As a priority transport infrastructure investment by the State of Victoria, North East Link (NEL) will provide a safe and efficient freeway connection by improving traffic flow, reducing travel times and increasing road use reliability for up to 135,000 vehicles a day. This presentation will examine progress to date to procure, deliver and establish the North East Link Toll Collection Capability.

10:30 – 11:00	MORNING TEA BREAK

11:00 – 12:30 SESSION 2: Major Project Updates

Explore major road projects with exclusive updates from industry leaders, highlighting how these initiatives transform landscapes and enhance connectivity.

MODERATOR

Rita Excell Rita Excell Advisory

Advancing Tolling Infrastructure: Progress on Sydney Tolling Projects
John Laman Project Manager, Kapsch TrafficCom Australia
Narayanan Krishnaswamy Principal ITS Engineer, Transurban
This presentation highlights the implementation of tolling technology in Sydney, showcasing key milestones, challenges and achievements in enhancing urban mobility and sustainability.

Update on the Warringah Freeway Upgrade Project and the Benefits of ITS in Such a Busy Corridor
Raed Dabit ITS Manager, DT Infrastructure
The Warringah Freeway upgrade in Sydney uses innovative traffic management strategies, including Over-Height Vehicle Detection, moveable medians, Variable Message Signs, Integrated Speed and Lane Use Signs, and Dynamic Direction Signs. These technologies optimize traffic flow, reduce congestion, and enhance safety. The project is 55% complete, with completion expected in 2026.

West Gate Tunnel Project and Technology Readiness Update
Laurene Cousyn Program Manager – Major Projects, Transurban
The West Gate Tunnel will offer an alternative to the West Gate Bridge, enhancing traffic flow and incident management with state-of-the-art technology throughout. Transurban, responsible for the Operations and Maintenance of West Gate Tunnel Project systems post-completion, is delivering system integration and ensuring the operational readiness of our teams to support this multi-asset road network from day one.

12:30 – 1:30	LUNCH BREAK

1:30 – 3:00 SESSION 3: Technology and Innovation – AI, Machine Learning and EVs

Explore cutting-edge advancements in transport including AI-driven solutions for traffic safety, vehicle classification, and strategic network management. From generative AI's role in optimising logistics and EV charging infrastructure to lessons from Brisbane Metro's fast-charging initiatives, attendees will gain insights into sustainable, efficient, and future-ready transport systems.

MODERATOR
Isobel Pastor Independent Policy Consultant

Computer Vision and AI for Transport Safety and Planning
Timothy Hudson ITS Domain Specialist, Transurban
Dr Gunel Gulmammadova Principal Data Scientist, Transurban
Transurban has innovated a real-time video analytics system that replicates the functions of in-pavement sensors through our network of roadside cameras, with the potential to provide additional capabilities. This solution demonstrates significant potential to optimise network management and enhance the safety of our roads.

Future Public Transport: The Role of Generative AI in Government Transportation Agencies
Karthik Murugan Head of Data and AI, Amazon Web Services (AWS)
Generative AI is transforming government transportation agencies by optimizing logistics, traffic management, and user services. It enhances route planning, predicts traffic patterns, and promotes sustainability. The technology also supports smart infrastructure, while addressing challenges like data privacy and ethical considerations, ultimately driving innovation and improving efficiency in mobility.

Axle-Based Vehicle Classification Utilising Radars - A Machine Learning Approach
Victor Deville Radar Support Engineer, Sensys Gatso Australia
Alastair Wiggins Technical Director, Sensys Gatso Australia
This study introduces a non-invasive radar-based system for axle-based vehicle classification, using signal processing and machine learning to extract key features. Tested with real-world data, it highlights a cost-effective alternative to traditional methods, contributing to smarter traffic monitoring and sustainable transportation networks.

EV Charging Infrastructure – The Next Frontier

Anna Sawyer Director Infrastructure Strategy, Deloitte
The uptake of EVs is gaining pace... and so is public charging demand. To meet the projected demand for EV public charging, we estimate that there is a need to build eight new public EV chargers every day from now until 2033, on average. This presents increasingly viable commercial opportunities.

Concept of Operation and Interoperability Considerations for EV Fast Charging Infrastructure for Bus Networks
Daniel O'Hara Senior Consultant, Egis
As the Brisbane Metro Project Verifier, Egis share lessons including concept of operation for EV bus fast charging infrastructure and interoperability issues between different vehicle manufacturers and charging infrastructure manufacturers.

Q&A + Discussion with Speakers

3:00 – 3:45	AFTERNOON TEA BREAK
3:45 – 5:15	SESSION 4: The Evolution of Tolling and Road User Charging

Delve into the evolution of tolling, from traditional systems to emerging gantry-less and tag-less technologies, distance-based tolling, and multi-lane free flow innovations. Experts will explore public-private collaborations, AI-driven solutions, and cutting-edge technologies shaping fair, efficient, and sustainable tolling for modern transportation networks.

MODERATOR
Pablo Ruiz Country Operations Manager – Australia, SICE

Future Tolling Without Tags and Gantries
Andreas Goldhorn Domain Lead Tolling, Transurban
The tolling landscape in Australia is currently based on multi-lane free flow roadside systems, in place for 25 years. It has been a long migration from traditional manual tolling over the years. Gantry-less and tag-less tolling is considered a viable solution for the near to medium-term future. This presentation continues to show Transurban's work and progress in this area.

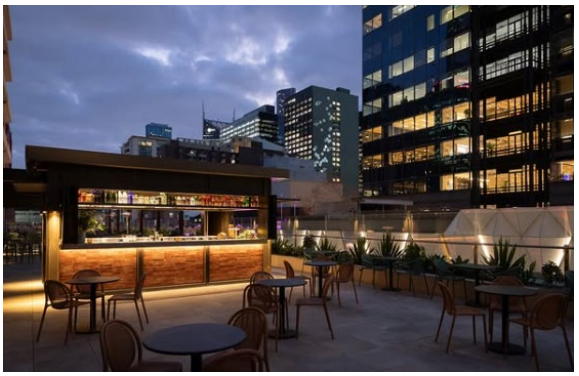
Tolling and Transport Public Private Partnership – What's Next?
Henry Wu Director JYW Consulting
This presentation examines a range of short-medium term public private partnership collaborations options that leverages of tolling/ITS industry capability to deliver environmental, safety, network operation and societal outcomes with sustainable long term return on investment such as: low emission zones, road user charging and smarter roads network.

Distance Based Tolling
Lance Brand Senior Solutions Manager, Q-Free
As governments face declining revenue from traditional fuel taxes and the transition to electric vehicles accelerates, there is a pressing need for fair and efficient tolling systems. Q-Free Australia presents a comprehensive analysis of distance-based tolling as a solution to these challenges.

How Could VanJee Lidar Increase the Axle Counting Accuracy in MLFF?
Rick Fang Regional Manager of Australia, VanJee Technology
This paper presents a novel axle counting method combining LiDAR and camera technologies for Multi-Lane Free Flow (MLFF) systems. It improves axle counting accuracy, reduces dependency on environmental conditions, and enhances system reliability, effectively addressing challenges like traffic congestion, varying speeds, and adverse conditions.

Q&A + Discussion with Speakers

6:30 – 8:30	WELCOME RECEPTION – Cocktail Function The Terrace Rooftop, Rydges Hotel



Join fellow delegates for the ultimate Melbourne rooftop experience at the Official Welcome Reception. Taking in views of Her Majesty's Theatre and the city skyline, this venue combines all Terrace Rooms and the adjoining Rooftop Terrace.

The Welcome Reception is the perfect opportunity to unwind and reflect on day one of the conference and start building your professional network in a relaxed and elegant setting.

Welcome note
Alicia Dole Director Transport Digital Solutions and Service Management, Department of Transport and Planning

Sponsor address
Anita Matuszewski General Manager Transport Technology, Transurban

Sponsored by:
Transurban

Friday 11 April 2025

8:15 – 9:00	ARRIVAL BARISTA COFFEE & TEA

9:00 – 10:30 SESSION 5: International Perspectives

Featuring international examples, this session delves into innovations and strategies shaping transportation, from updated standards for tolling interoperability and V2X implementations to mileage-based road user fees and traffic incident management solutions. Attendees will gain insights into leveraging data, technology, and international learnings to enhance network performance, sustainability, and efficiency.

MODERATOR

Brittany Croft Area Sales Manager – Oceania/APAC, Kapsch TrafficCom Australia

Updates from Technical Committee IT-023 Transport Information and Control Systems

Andreas Goldhorn Domain Lead Tolling, Transurban

This presentation provides a summary of the work of this committee regarding national and international standards in the field of Transport Technology and Control Systems. One recent work item has been a systematic review and update of AS4962 Electronic Toll Collection – Transaction specification for Australian interoperability on the DSRC link.

Light Rail V2X

Felicity Williams-Lovegrove Business Development Director ANZ, Yunex Traffic

Learnings from International and Australian V2X implementations related to Light Rail/Tram and Rail. The integration of RSUs and associated equipment in the Australian eco-system is expanding with use-cases becoming more robust.

The National USA RUC program - Past Perspective and Future National Test

Sophia Chan Fellow, American Association for the Advancement of Science and Technology (AAAS&T)

This presentation summarizes the past, current, and future concepts, approaches, technology, and public reaction to efforts replacing fuel excise taxes for mileage-based user fees.

Road User Charging for All Vehicles - New Zealand's path

Scott Wilson Client Service Lead Road User Charging Australia and New Zealand, CDM Smith

New Zealand looks like being one of the first countries to put all of its motor vehicle fleet into a distance-based road user charge, how might the lessons it has learned be applied in Australia.

Q&A + Discussion with Speakers

10:30 – 11:00	MORNING TEA BREAK

11:00 – 12:30 SESSION 6: Technology and Innovation: Data, Safety and Traffic Management

This session explores cutting-edge solutions transforming transportation, from digital twins and IoT-driven platforms to real-time traffic management and risk-based asset planning. Attendees will learn how emerging technologies, data strategies, and safety innovations are enhancing efficiency, sustainability, and mobility while addressing challenges like motorcycle safety and high-risk traffic zones.

MODERATOR

Eduardo Mayer Regional Manager VIC | TAS | SA, Westermo

Extending Working Windows on the M25 : Enhancing Efficiency, Safety and Cost-Effectiveness With Alchera

Nathan Harvey Asset Data Team Lead, Connect Plus

The M25 DBFO uses Alchera, an advanced planning tool, to optimise maintenance shifts by safely extending or adjusting work windows based on real-time traffic flow and cost data. This reduces closures, improves efficiency, lowers costs and minimises disruption, improving the journey experience for customers and surrounding communities.

Digitally Connected Highways of the Future

Geoff Jamieson Managing Director, Orcoda

Discover how integrated smart transport technology, digital twins, and IoT-driven intelligent platforms enhance decision-making, client experiences, and competitiveness in transportation. Geoff Jamieson will outline strategies for tech integration to drive efficiency, sustainability, and urban mobility's future.

How Will Traffic and Transport Environments in Townsville Benefit from Smart City Systems?

Samira Namin Technical Director - Electrical Engineering at Roads and Highways, GHD

Denton Liu Senior Civil Engineer, GHD

Smart City systems at urban traffic and pedestrian control environments should detect, monitor, and manage the flow of vehicles and pedestrians. They are expected to provide critical functions such as counting, signalling, and reporting in areas like intersections, approach roads, wait zones, and crossings.

A Risk-Based and Data-Driven Framework to Optimise ITS Asset Management

Yandong Fan Head of ITS Strategy, Transurban

The ITS team within Transurban has applied a risk-based and data-driven framework to prioritise the asset management and maintenance investment plan. The new practice has delivered a more effective multi-year asset management plan to achieve cost-effectiveness and operational efficiency.

C-ITS - Connected Motorcycle Safety

Erik van Vulpen Deputy Director Centre for Technology Infusion, La Trobe University

Motorcycle rider fatalities and serious injuries are a major issue and are overrepresented in road crashes.
TMR, TAC, La Trobe University and iMOVE will be sharing the results of a C-ITS application that receives little attention globally: Motorcycles.

Enhancing Safety through Workzone Digitisation on the M5E

Aedan Hewitt General Manager, Fulton Hogan Egis O&M Pty Ltd (FHE)

Beth Lilford Head of Digital, Altus Traffic

The Workzone Digitalisation uses the technologies to transform safety in high-risk traffic zones. With real-time monitoring and proactive alerts, it reduces risk, improves efficiency and encourages safer driver behaviour, setting a new standard for innovation in traffic management and creating a safer, smoother experience for the motorists and road workers.

Q&A + Discussion with Speakers

12:30 – 1:30 LUNCH BREAK

1:30 – 2:30 SESSION 7: Technology for Future Sustainable, Equitable Road Networks

In this session, learn about advancements in transport infrastructure, from scalable automated vehicle classification and radar-based monitoring to eco-friendly tolling and modernisation frameworks. With a focus on leveraging major projects for social and economic change, experts will share strategies for improving safety, sustainability, and user experience in Australia's transport networks.

MODERATOR

Stacey Ryan Policy Manager, ITS Australia

Driving a Better Future: Technology-Enabled Modernisation of Australian Transport Registration and Licensing

Susan Brown Partner, Deloitte Digital

Australia's transport sector faces challenges in maintaining safe, resilient, and sustainable operations. This presentation examines technology gaps in registration and licensing systems and proposes a strategic framework for improvement, exploring four modernisation approaches: rebuild, maintain and contain, modernise, and replace; highlighting practical steps for phased modernisation using modern technologies.

Automated Vehicle Classification

Sam Gray Innovation Lead, Transurban

Gunel Gulmammadova Principal Data Scientist, Transurban

Transurban has created an infrastructure lite, scalable, automated vehicle classification tool using our roadside cameras. It accurately counts and classifies up to twenty-two (22) vehicle types. We will share our journey as to how we got here and also highlight the accuracy performance results from 3 sites along our networks where our tool currently operates at production.

The Future of Tolling: Navigating Tag-Based and Video-Based Systems

Justin Justiniano Graduate Solution Consultant, Kapsch TrafficCom Australia

This presentation explores the future of tolling in Australia, examining the strengths of eco-friendly tag systems and advanced video technologies while showcasing Kapsch's dual investment strategy to ensure seamless mobility and enhanced user experience.

Testing and Integration of ITS

Jay Elliott System Engineer, DT Infrastructure

DT Infrastructure is a project partners for the Warringah Freeway Upgrade. DTI has developed new and advanced testing techniques which comprise of both old and new electronic systems and software, to ensure the motorway operates in a safe and effective manner, not only during construction but following deployment to commissioning.

2:30 – 4:00 CLOSING PLENARY SESSION 8: Closing Plenary Panel Discussion: Road User Charging, Congestion Tax, Tolling and more... Policy and Technology for the Future

PANEL DISCUSSION MODERATOR

Sophia Chan Fellow, American Association for the Advancement of Science and Technology (AAAS&T)

PANELLISTS

Matthew Alvaro Service Delivery Manager- Information Technology, ConnectEast EastLink

Luke Normington Senior Vice President EMEA, Neology

Scott Wilson Client Service Lead Road User Charging Australia and New Zealand, CDM Smith

Silje Troseth Vice President APAC & General Manager Australia, Q-Free

Gabriel Makki, Senior Expert, Global Sales Enablement, Tolling, Kapsch

Emily Bobis Founder, Compass IoT

Aaron Pratley Domain Lead – Transport and IOT, NZTA

Closing Notes and ITS Australia Update

Susan Harris CEO, ITS Australia

4:00 – 4:30 CLOSING NETWORKING REFRESHMENTS

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