

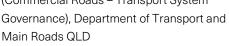
Doug Wilson Associate Professor & Director of Transportation Research Centre, University of Auckland Decarbonising Transport Systems by Energy Snacking' from Wireless Charging of Electric Vehicles Exploring the opportunities and challenges that need to be overcome to install wireless technologies efficiently and effectively within transport infrastructure to enable an affordable and equitable transition to a low carbon transport system.

10:30 – 11:00 MORNING TEA BREAK

#### 11:00 – 12:30 BREAK-OUT SESSION 2

2A – International Perspectives and Case Studies Frangipani Ballroom 2&3

### MODERATOR Kyle Tuite A/Principal Advisor (Commercial Roads – Transport System

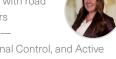




# Revolutionising Roadways: Tech Solutions for Global Traffic Challenges

#### Inger Gartner Senior Business Development Manager, Cubic Transportation Systems

Global transportation agencies grapple with road system challenges. Emerging tech offers solutions. This talk examines strategies—



Intersection Optimisation, Adaptive Signal Control, and Active Transport—to ease congestion, each backed by case studies. Factors like population density and infrastructure shape road planning, while AI aids informed decision-making for sustainable urban development.

#### The journey to High Performance Video Based Tolling and Key Success Factors to Achieve

#### Daniel Shaw Senior Solutions Consultant, Kapsch TrafficCom Australia



cost-effective tolling with a reduced environmental footprint. The presentation objectively compares radio and video detection, offering insights for global city adoption. It also delves

into Kapsch's journey, overcoming challenges to establish this state-of-the-art video-only tolling system.

### Tolling Trends in Europe Dr Boris Wagner Head of Business Unit

#### Traffic, VITRONIC



The presentation explores the open marketplace model of tolling in some European countries. It

explains the reasons and consequences of this trend for the toll system infrastructure. It also questions if this model is the future of tolling worldwide.

#### National Approach to Tunnel Management - Switzerland Fabian Seelinger Managing Director Finance APAC, Yunex Traffic

The Federal Roads Office (FEDRO) in Switzerland has expanded the route equipment on the national roads and significantly improved operational traffic management over a 10-year period. The new



system with a uniform traffic management logic offers FEDRO many expanded and new functionalities, such as central and subregional traffic control.

#### **2B – Technology Innovations** Frangipani Ballroom 1

MODERATOR Samira Namin Technical Director – Electrical Engineering, Roads and Highways, South Qld, GHD



#### Changing Behaviours and Saving Lives in Queensland

Alexander Jannink CEO and Managing Director, Acusensus

Acusensus runs two successful programs in Queensland (QLD), the Mobile Phone Detection and Seatbelt Program and the Queensland Speed Detection Program. 'Heads-Up' and Harmony are



utilised in these respective programs, which provide enforcement at all times and in all weather conditions. Fatalities have declined in QLD since these programs commenced.

#### Video Analytics for Multi-Objective Optimisation of Traffic Safety and Efficiency: The Case of Permissive Versus Protected Turns

#### Ashutosh Arun Chief Product Officer, Advanced Mobility

#### Analytics Group

Video analytics-based approaches with reliable conflict analysis provide objective evidence regarding the intersection between traffic safety



and operational efficiency. This new insight and knowledge will enable combined optimisation of safety and operational efficiency. Through real-time applications, permissive-protected transitions can be automated for 24x7x365 operations delivering optimal safety and efficiency outcomes.

#### Application of Large Language Model on Major Infrastructure Projects

Henry Wu Director, JYW Consulting Bob Langridge Senior Consultant – AFC and ICT, JYW Consulting Application of LLM to drive major



infrastructure cost saving and productivity gains.

#### Leveraging AI for Automated Road Condition Monitoring: Insights from NEC's Japanese Case Studies

#### Simon Ryley Manager - Global Smart Transport Solutions, Smart Transport, NEC

Explore the use of Al driven solutions for automating the monitoring of road conditions and roadside assets through live use cases in Japan.



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<< Session cont'd next page...>>

Q-Free's Innovative Tolling Technology at Sydney Harbour Bridge Lance Brand Senior Solutions Manager, Q-Free Australia

Q-Free presents its innovative tolling system at Sydney Harbour

Bridge, a heritage site with a stunning view of the Opera House.

Learn how Q-Free overcame the challenges of detection,

classification, and charging for this unique project.



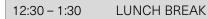
#### Advanced Perception Al in Transport Phirence Tan Business Development Manager, Yunex Traffic



#### Al technology for new ways to perceive and manage

traffic by unlocking the power of your intersection/road/toll gantry with the AI solutions. A revolutionary approach creates a real-time digital replica of your road network, fuelling AI-enhanced ITS applications, ensuring your traffic management is at the forefront of innovation and efficiency.

#### Q&A + Discussion with Speakers



Q&A + Discussion with Speakers

#### 1:30 – 3:00 BREAK-OUT SESSION 3

**3A – Digital Technology and Future Vehicles** Frangipani Ballroom 2&3

### MODERATOR Rich Mitchell Associate,



Integrated Transport and Mobility, Aurecon

# Intelligent Transportation Systems of the Future

#### Charles Karl Chief Technology Leader, NTRO – National Transport Research Organisation

This presentation is an attempt by an Australian ITS practitioner with 30+ years industry experience to make sense of the current ITS developments and suggest what the future ITS world might be.

# Optimise your Transportation Network with Al Visual Analytics

#### Michael Swanander Sales Director Cities & Transport,

#### Unleash live

Uncover the transformative impact of real-time computer vision on transportation. Explore AI Use Cases spanning Roads, Public Transport, Smart



Cities and Planning, optimising operational efficiency, elevating safety and enriching the commuter experience. From counting vehicles to achieving net zero, delve into a future shaped by innovative technology.

# Self-Aware Road Infrastructure using C-ITS to Increase Value

#### Christian Chong-White National Traffic Algorithm Development Manager, SAGE Automation

SAGE Automation has pioneered self-aware functionality for various automated infrastructures to elevate the capabilities of smart road signs,



encompassing variable speed limits and messaging

while employing radar to measure passing vehicle speeds. These signs provide a streamlined setup and ongoing operations for cost reduction, ease of use, and safety enhancement.

# 3B – Roadworks and Traffic ManagementFrangipani Ballroom 1

MODERATOR Ben Jones Customer Success Director, Transmax



### Temporary Traffic Management Certification Patsy Thomas National TTM Operations Manager,

Austroads

Gain valuable insights as she discusses the crucial aspects of certification in ensuring safe and efficient traffic management. Explore the latest standards



and practices, empowering professionals in the ever-evolving field of temporary traffic management.

#### Driving Forward: Innovations across Traffic Management, and insights from Traffic Management Association of Australia Annual Conference

Matthew Bereni CEO, Traffic Management Association of Australia

Get exclusive updates from the Transport Management of Australia Association's CEO on the latest advancements in transportation technology, directly from their annual conference.



Safety, Resilience and Sustainability in Western Brisbane Samira Namin Technical Director - Electrical Engineering,

#### Roads and Highways, South Qld, GHD

Seamless network operations, redundant communications architecture, Qld's State's recovery, resilience, and future prosperity.



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## A hybrid Approach to Scaling Up C-ITS Technology

## Brittany Croft Solution Consultant, Kapsch TrafficCom

Australia

Cooperative Intelligent Transport Systems (C-ITS) are vital for Australia's safety and emissions goals. Retrofitting extensive road infrastructure with C-ITS

roadside units poses challenges, especially with older vehicles. Kapsch proposes a hybrid solution, integrating physical and virtual infrastructure, like virtual RSUs (vRSU), to smoothly transition towards C-ITS for long-term transport efficiency.

#### Leveraging Digital Twins to Optimize Active Transport and E-Mobility Safety

#### Ian McCarthy Managing Director, AIMSUN

This presentation explores optimizing active transport and e-mobility safety using Aimsun Digital Twins and SSAM. The study employs advanced

Q&A + Discussion with Speakers

simulations to analyze various network configurations, identifying critical intersections and safety concerns. Incorporating SSAM, it assesses collision probabilities and user vulnerability, offering insights for designing safer urban networks and informing decisions for sustainable mobility.

#### Demonstrating Improved Safety in Australian Roadworks Using Portable C-ITS Roadside Stations

Harsh Trivedi a/Principal Engineer (ITS), Cooperative and

Automated Vehicle Initiative, Department of Transport and Main Roads QLD

Cooperative Intelligent Transport Systems (C-ITS) has the potential to save lives when infrastructure is



has the potential to save lives when intrastructure is deployed on roads: particularly at roadworks, intersections, and motorways. This presentation outlines the standard functionality provided by C-ITS roadside stations, how they apply to common temporary traffic scenarios and the lessons learned from the Roadworks Warning Proof-of-Concept.

#### Q&A + Discussion with Speakers

#### 3:00 – 3:45

AFTERNOON TEA BREAK

#### 3:45 - 5:00 PANEL DISCUSSION SESSION 4 Sharing Data vs Community Expectation for Privacy

#### Frangipani Ballroom 2&3

#### **Moderated Panel Discussion**

Our panel of industry leaders will expertly navigate the delicate balance between leveraging data for smart infrastructure and respecting community privacy expectations.

Tackling a significant challenge—establishing clear frameworks for data governance and transparent communication channels—the session, moderated by experts from both government and industry, will explore strategies for responsible data sharing. Gain insights into innovative approaches that drive transportation technology forward while upholding the highest standards of privacy.

#### MODERATOR

Stacey Ryan Policy Manager ITS Australia

#### PANELLISTS

Dennis Walsh Chief Engineer, Department of Transport and Main Roads QLD Rita Excell Head of Transport – ANZ, Amazon Web Services Chris Koniditsiotis Advisor and Consultant, Chris K Phronesis Dr Yandong Fan Head of ITS Strategy and Planning, Transurban Geoff McDonald Principal Technician CAVI, Department of Transport and Main Roads QLD Carla Hoorweg Chief Executive, ANCAP Safety



#### 6:30 – 8:30 WELCOME RECEPTION – cocktail function The Terrace, Emporium Hotel South Bank – Level 21

Elevate your networking to new heights at The Terrace, with unrivalled views and world-class beverages at Brisbane's premier open-air rooftop.

Enjoy breathtaking panoramas of Brisbane River and city skyline while networking and mingling with fellow attendees in a relaxed and elegant setting.



Joshua Till Head of Transport Technology QLD, Transurban



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

Included with your conference registration – drinks and canapes served Dress: Business casual



## Thursday 21 March 2024

8:30 - 9:00

**ARRIVAL BARISTA COFFEE & TEA** 

#### 9:00 - 10:30 **BREAK-OUT SESSION 5**

#### 5A – Safety, Resilience and Sustainability Frangipani Ballroom 2&3

**MODERATOR** Renata Berglas Mobility Futures Business Group Leader, NTRO -National Transport Research Organisation



Creating Safer Intersections Using Real-Time Video Analytics: Providing pedestrian priority at intersections Jason Deller Senior Transport Engineer / Road Safety Engineer, Advanced Mobility Analytics Group

Dynamic signal timing is crucial for preventing accidents and promoting safer roads for pedestrians. Real-time video analytics categorizes

and detects vehicles and pedestrians, enabling precise quantification of data. This information facilitates the intervention in signal prioritisation for vulnerable road users.

Making Use of the Existing Fibre-Optic Cables to Monitor Stability of Rock Surrounding a Tunnel Richard Lynch Business Development Manager -Australasia, Egis Road Operation Australia Oliver Leupold ANZ General Manager Operations, Egis Road Operation



Underground road and rail tunnels are critical infrastructures which need to be

Australia

stable over the intended life. Ambient seismic noise monitoring is a relatively new technique that uses background uncontrolled vibrations recorded simultaneously by multiple sensors to monitor the rock. An effective use can extend the lifecycle of infrastructure assets.

#### Traffic Analysis and Operational Planning for M7-M12 Integration Project

Karan Pedramrazi Manager of Customer Analytics, Transurban



Paul Hanna Technology Manager, NorthWestern Roads Group (NWRG)

Effective application of advanced analytics and strategical planning to enhance road safety and improve customer experience.

Additional presentations being finalised



#### 5B - Tolling and Road User Charging Frangipani Ballroom 1

**MODERATOR** Clifford Brake Advisor and **Consultant Tolling Professional** 



SPONSOR VIDEO: Advanced Tolling Solutions for Future Mobility SICE

#### Congestion Charging & Tolling - Two Converging Worlds Pablo Ruiz Head of Operations – Australia, SICE

Building unified systems to enable improved and cost-efficient road user charging schemes combining tolling and road user charging schemes into one unique platform.



#### Road User Charging in Australia: Can Australia Catch Up with the World?

Scott Wilson Client Service Lead Road User Charging

Australia and New Zealand, CDM Smith

The ruling that Victoria's Zero Emission Vehicle fee is unconstitutional has raised questions about how Australia might advance road user charging (RUC) for fairness perspectives, but Australia can learn much from



light vehicles. The case for RUC is compelling from revenue and experiences in the USA, Europe and New Zealand.

#### SPONSOR VIDEO: Transurban Careers. Be You Transurban

Future Tolling - Opportunities and Challenges Andreas Goldhorn ITS Domain Lead Tolling, Transurban

This talk provides an overview on the different scenarios how future tolling could look like and shows which are the opportunities and challenges of each of these scenarios.



#### Road User Charging - How to get away from fuel-duty dependency?

#### Luke Normington Senior Vice President -EMEA, Neology

This presentation will highlight some of the work being done in Europe, with a particular focus of the

Danish RUC Pilot, commissioned by their Department of Finance, in order to understand the practical considerations of moving to a new RUC model. This presentation will provide an overview of how the Danes are undertaking an 18mth trial, using a mixture of consumer-grade technology, along with Tolling and Enforcement technology.

<< Session cont'd next page...>>



	North East Link Toll Collection Capability Project Update Zoltan Maklary Director Tolling, North East Link Gillian Dirckze Project Manager, North East Link North East Link State Tolling Corporation (STC) was established in accordance with the North East Link Act 2020 (the NEL Act) and was provided powers to fix, collect and enforce tolls and administration fees on the North East Link tollway. The primary objective for STC is to set, administer and maximise the toll revenues from the NEL Road to provide government with a range of future options. Prior to the operating period commencing late 2028, STC is assigned responsibility for the delivery of the Toll Collection Capability (TCC) Project. STC will engage a Toll Collection Capability Contractor (TCCC) or multiple TCCC to provide tolling gantries, roadside & back-office systems, enforcement / compliance, active network communication systems and will establish arrangements with 3rd parties and suppliers as needed. This presentation is to provide an update on the status and timelines of the TCC project.
	Q&A + Discussion with Speakers
10:30 – 11:00 MORNING TEA BREAK	
11:00 – 12:30 BREAK-OUT SESSION 6	
6A – Urban Mobility: Innovations in Parking and	6B – Technology and Freight
6A – Urban Mobility: Innovations in Parking and Traffic Frangipani Ballroom 2&3	6B – Technology and Freight Frangipani Ballroom 1
Traffic         Frangipani Ballroom 2&3         MODERATOR Gillian Dirckze Project         Manager, North East Link	
TrafficFrangipani Ballroom 2&3MODERATOR Gillian Dirckze ProjectManager, North East LinkRevolutionising Parking: Insights and Innovations from Parking Australia	Frangipani Ballroom 1MODERATOR Inger Gartner Senior Business Development Manager, Cubic Transportation SystemsSystemsNational Automated Access System (NAAS) for Heavy
TrafficFrangipani Ballroom 2&3MODERATOR Gillian Dirckze Project Manager, North East LinkRevolutionising Parking: Insights and	Frangipani Ballroom 1 MODERATOR Inger Gartner Senior Business Development Manager, Cubic Transportation Systems
Traffic         Frangipani Ballroom 2&3         MODERATOR Gillian Dirckze Project         Manager, North East Link         Revolutionising Parking: Insights and         Innovations from Parking Australia         Jeremy Irvine Chief Executive Officer, Parking Australia         Daniel Hitchcock Managing Director, First Parking         Explore innovative solutions reshaping the parking industry, as experts share transformative perspectives and advancements in parking technologies	Frangipani Ballroom 1         MODERATOR Inger Gartner Senior Business         Development Manager, Cubic Transportation         Systems         National Automated Access System (NAAS) for         Vehicles         Dr Geoff Allan Chief Executive Officer,         Austroads         Exploring seamless, efficient, and standardized         access control for heavy vehicles, transforming

#### Leading-Edge Projects in Tolling and Traffic Management

Hashan Mendis Lead Tolling Engineer, VITRONIC Lohita Rajesh Lead Tolling Engineer, VITRONIC

This presentation will focus on leadingedge projects in tolling and traffic management, demonstrating significant advancements in road infrastructure across Australia and Poland.



#### Tolling Technology for the Western Harbour Tunnel

Nick May Principal Advisor, Western Harbour Tunnel Tolling, Transport for NSW

Transport for NSW intends to deploy a tagless tolling solution for the Western Harbour Tunnel and

has commenced a formal market engagement process to ensure international best practice and innovation can inform solution and specification development. This presentation provides an overview of the strategy and approach Transport has adopted.

#### Q&A + Discussion with Speakers

Axle-based Vehicle Classification Using Tracking Radar

Victor Deville Radar Support Engineer, Sensys Gatso

#### Australia

on various roads.

Introducing a radar system that exploits the micro-Doppler effect to classify vehicles based on their axles. Enhancements are presented to improve the



radar algorithm's performance in vehicles moving in parallel scenarios. This non-invasive solution requires no road infrastructure, enabling cost-effective, vandal-resistant deployment

Decarbonising Transport – Big on Announcements, Slow on Delivery?

Renata Berglas Mobility Futures Business Group Leader, NTRO - National Transport Research Organisation

Navigating the colossal challenge of achieving global emissions reduction targets demands accelerated action. Despite having the necessary technology and skills, progress remains slow.



Overcoming barriers involves addressing production challenges, upfront costs, and exploring incentives, government policies, financial mechanisms, and collaborations to propel advancements in reducing scope 3 transport emissions.

#### Additional presentation being finalised

Q&A + Discussion with Speakers

#### 12:30 – 1:30 LUNCH BREAK

#### 1:30 – 2:30 PLENARY SESSION 7 PANEL DISCUSSION – Future of Tolling for Australia

Frangipani Ballroom 2&3

Join our moderated panel discussion where government and toll road operators delve into the key future technology challenges and opportunities in operating and managing motorway tolling systems. The panel will discuss the evolution of tolling systems, technology trends, innovation and explore how industry and government can work together to enhance the future of tolling technology in Australia.

#### MODERATOR

Angus Carter Consultant, JYW Consulting

#### PANELLISTS

Joshua Till Head of Transport Technology QLD, Transurban Andreas Goldhorn ITS Domain Lead Tolling, Transurban Felicity Finlayson Director Motorway Partnerships & Planning, Transport for NSW Zoltan Maklary Director Tolling, North East Link Matthew McLeish Executive Vice President | Asia Pacific, Kapsch TrafficCom Australia Lance Brand Senior Solutions Manager, Q-Free Australia

Q&A + Discussion with Panellists

#### 2:30 – 3:00 CLOSING PLENARY SESSION 8

Don't miss the insightful keynote talks by industry leaders in the closing plenary session, as they share their vision and strategies for shaping the future of transportation.



#### Update on National Heavy Vehicle Charging Pilot

Matthew Rendle Assistant Director, National Heavy Vehicle Charging Pilot, Department of Infrastructure, Transport, Regional Development, Communications and the Arts, Australian Government

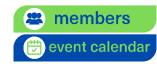
Sebastian Jezierski General Manager, Inloop (Nuonic)



#### Update on ITS Australia Summit 2024 Sydney (13-15 Aug 2024) ITS Australia Activities, Conference Close and Thank You Susan Harris Chief Executive, ITS Australia

About ITS Australia

ITS Australia is the peak body for advanced transport technology, supporting the delivery of safer, more efficient, sustainable transport solutions. We are a Not for Profit association and serve the interests of our members in Australia and globally. We represent the Australian ITS sector within Australia and Australian ITS interests on the world stage. We concentrate on land-based transport activities and interfaces to air and sea modes, and related entities.



Frangipani Ballroom 2&3

We represent 150+ member organisations nationally and globally.

# 3:00 - 3:30 CLOSING NETWORKING REFRESHMENTS 3:30 - 4:30 OPEN WORKSHOP - ALL ATTENDEES WELCOME Integrated Connected Data for Safer More Efficient Traffic Management Operations Frangipani Ballroom 2&3

This workshop will investigate the findings by University of Melbourne following an intensive literature review, stakeholder consultations and modelling of large data sources from a range of partners. Join this workshop to hear about the findings and share your thoughts on potential opportunities going forward.

By integrating CV data with traditional sensors and infrastructure information, the study reveals valuable insights into traffic patterns, efficiency, safety risks, and violations. The findings underscore the significance of CV in improving overall efficiency and safety of road networks. We present a structured framework for effectively integrating CV data with modern traffic management systems and practices, aiming to develop cost-effective and integrated intelligent traffic management systems.

Facilitated Q&A Discussion – This is an important project for our sector, and we are keen to engage with subject matter experts in our industry. We look forward to welcoming conference delegates join us for this workshop – if you have any questions or comments please reply directly to ITS Australia: <u>admin@its-australia.com.au</u>

#### MODERATORS

Neema Nassir Senior Lecturer, The University of Melbourne (by remote presentation) Stacey Ryan Policy Manager, ITS Australia



#### Facilitated Q&A Discussion

Program as at 18/3/24



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