



Department of
Transport



AUSTRALASIAN TRANSPORT RESEARCH FORUM
PERTH, AUSTRALIA 26 - 29 SEPTEMBER

2012

PROGRAM

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Wednesday 26 September 2012

Time	Session	Location
8.00 - 9.00 am	Registration & welcoming tea and coffee	Exhibition Hall Grand River Ballroom & Foyer
9.00 - 10.30 am	<p>Australasian Transport Research Forum (ATRF) Opening</p> <p><i>Plenary Session – Shaping the future: identifying the transport challenges</i></p> <p>Plenary Speakers: Ms Sue McCarrey, (Chair) Acting Director General – Department of Transport, Western Australia – Western Australia’s transport vision Ms Dorte Ekelund, Executive Director, Major Cities Unit, Department of Infrastructure and Transport - The challenges facing Australian cities Dr Peter Cock, Executive General Manager Operations & Customer Experience, Perth Airport – Planning factors behind the expansion of Perth Airport</p>	Plenary Room Golden Ballroom
10.30 - 11.00 am	Morning tea	Exhibition Hall Grand River Ballroom
11.00 – 12.30 pm	ATRF and ARRB parallel technical sessions & workshops 6	
1.1 (ATRF) Financing Transport Infrastructure Hamersley Room	1.2 (ATRF) Transport Infrastructure Goldsworthy Room	1.3 (ATRF) Transport Networks Golden Ballroom North
6.1 (ARRB) Low Volume Roads Golden Ballroom South	6.2 (ARRB) Microsimulation & Advanced Modelling II Golden Ballroom Centre	6.3 (ARRB) Asset Management and Safe Systems Workshop Mt Newman Room
<p>Chair: Mr Lindsay Oxlad – Manager Road Transport, Policy and Investment, Department of Planning, Transport and Infrastructure, South Australia</p> <p>Developing a train crowding economic costing model and estimating passenger overcrowding cost of Sydney CityRail network Baojin Wang Julieta Legaspi AUSTRALIA</p> <p>Application of above average crash costs in road infrastructure cost benefit analysis: a case study example Mark Best AUSTRALIA</p> <p>Modelling the impact of a freight charge on Sydney container traffic Neil Douglas Matthew Jones AUSTRALIA / NEW ZEALAND</p>	<p>Chair: Mr Mark Elford – Executive Director, Strategic Transport and Infrastructure Planning, Department of Planning, Transport and Infrastructure, South Australia</p> <p>1966 and all that: a tale of transport policy and integration in Western Australia Ian Ker AUSTRALIA</p> <p>Towards an “intelligent” national road use management strategy Murray Hollis AUSTRALIA</p> <p>Planning for effective project pipelines Peter Bannister AUSTRALIA</p>	<p>Chair: Mr Tim Raimond – General Manager, Bureau of Transport Statistics, New South Wales</p> <p>Understanding large transport network performance subject to unexpected traffic demand Hassan Sabzehali Majid Sarvi Iradj Ouveisy AUSTRALIA</p> <p>The spatial interactions between public transport demand and land use characteristics in the Sydney greater metropolitan area Chi-Hong Tsai Corinne Mulley Geoffrey Clifton AUSTRALIA</p> <p>Evaluating the impact of bus network planning changes in Sydney, Australia Corinne Mulley Chinh Ho AUSTRALIA</p>
<p>Performance of pavements constructed with expansive clay Shamim Anwar AUSTRALIA</p> <p>Mechanical behaviours of base course materials in Western Australia Suphat Chummuneerat AUSTRALIA</p> <p>Optimum design of sustainable sealed low volume roads using the Dynamic Cone Penetrometer (DCP) Philip Paige-Green SOUTH AFRICA</p> <p>Development of design guideline for rural low volume roads in Malaysia Sufiyan Zakaria MALAYSIA</p>	<p>Investigating efficiency at level crossings: simulation of road and rail signalling improvements Matthew Hall AUSTRALIA</p> <p>A review of traffic growth rate calculations Simon Kenworthy-Groen AUSTRALIA</p> <p>Hybrid modelling with integrated adaptive SCATS signals Antony Johnstone AUSTRALIA</p> <p>Dissecting the basic fuel consumption equation into its components to improve adaptability to changing vehicle characteristics Bob Lloyd AUSTRALIA</p>	<p>The workshop will summarise the outcomes of the recent Austroads project, AT1692 – Asset Management within a Safe Road System Framework. The workshop will provide a chance for participants to discuss opportunities and barriers in balancing maintenance vs. safety objectives.</p> <p>The workshop will also provide a forum for Asset Managers and Road Safety practitioners to come together, with the goal of creating greater understanding of the impact that each discipline has on the other.</p>

12.30 - 1:15 pm	Lunch				Exhibition Hall Grand River Ballroom & Foyer
1.15 - 2.45 pm	ATRF and ARRB parallel technical sessions & workshop 7				
2.1 (ATRF) Transport Modelling Hamersley Room	2.2 (ATRF) Urban Transport & Mobility Goldsworthy Room	2.3 (ATRF) Transport Logistics Golden Ballroom North	7.1 (ARRB) Road Safety III Golden Ballroom South	7.2 (ARRB) Getting the Best Out Of Managed Freeways Workshop Mt Newman Room	7.3 (ARRB) Subgrades Golden Ballroom Centre
<p>Chair: Dr Krishna Hamal – Senior Researcher, Bureau of Infrastructure, Transport and Regional Economics</p> <p>Pivoting in travel demand models Andrew Daly James Fox Bhanu Patruni Frank Milthorpe AUSTRALIA</p> <p>Stated preference survey experiment design for transit-oriented development modelling Li Meng Michael A P Taylor Nicholas Holyoak AUSTRALIA</p> <p>Assessing the uncertainty in micro-simulation model outputs Sicong Zhu Luis Ferreira AUSTRALIA</p>	<p>Chair: Mr Abra DeKlerk – Associate Director of Transport, AECOM</p> <p>Fifty years of public transport planning in Canberra Paul Mees AUSTRALIA</p> <p>Public transport use in Australia's capital cities: modelling and forecasting Afzal Hossain David Gargett AUSTRALIA</p> <p>Integrated urban transport and distributed systems for urban mobility: a convergence of ideas in sustainable transport? Leigh Glover AUSTRALIA</p>	<p>Chair: Mr Doug Brindal – Manager Logistics, Fremantle Ports</p> <p>Light freight vehicles – understanding their role in urban logistics John Campbell John Dudgeon Ian Gould Ronnie Paulus AUSTRALIA</p> <p>Recent trends of New Zealand's international freight transport Haobo Wang Joanne Leung NEW ZEALAND</p> <p>An analysis of container handling at Australian ports Anatoli Lightfoot Godfrey Lubulwa Adam Malarz AUSTRALIA</p>	<p>Aspects of engineering approaches to reduce speeds and speed related crashes on rural highways of Bangladesh Md. Mazharul Hoque BANGLADESH</p> <p>Star rating road designs performance indicators for roads in India Luke Rogers AUSTRALIA</p> <p>Risk based prioritisation of remedial works identified through road safety audit John Hughes AUSTRALIA</p>	<p>How do we ensure we get the best out of Managed Freeways?</p> <p>As Managed Freeways solutions are developed across Australia we need to build on lessons learned to ensure we achieve the best outcomes. This session will bring together public and private sector perspectives on best practice approaches to implementation, from concept development and design through to operations and maintenance. The session will cover:</p> <ul style="list-style-type: none"> • latest national / international research and applicability • lessons learned from Melbourne, New Zealand and UK • new challenges / opportunities • public / private sector perspectives • research / practitioner perspectives • understanding outcomes. 	<p>On the swelling potential of remolded clays compared with undisturbed clays Moshe Livneh ISRAEL</p> <p>Salinity in unbound granular road pavements (new) Ryan de Carteret AUSTRALIA</p> <p>Trafficability assessment of salt crystalliser pavements in Western Australia Srijib Chakrabarti AUSTRALIA</p>
2.45 – 3.00pm	BREAK ARRB Sponsors/Exhibitors Prize Draw All delegates to move to the Golden Ballroom				Exhibition Hall Foyer
3.00 - 4.30 pm	Plenary session – Shaping cities: The role of transport planning Mr Gary Liddle , (Chair) Chief Executive Officer, VicRoads and Chairman of Austroads and the Australian Chapter of the Road Engineering Association of Asia and Australasia Plenary speakers: Mr Gary Prattley , Chairman, Western Australian Planning Commission Ms Lisa Scaffidi , The Right Honourable The Lord Mayor, City of Perth Dr Fred Affleck , Chairman, Freight and Logistics Council of Western Australia				Plenary Room Golden Ballroom
4.30 - 5.00 pm	ARRB Conference closing ceremony				Plenary Room Golden Ballroom
5.00 - 6.00 pm	BREAK				
6.00 - 8.00 pm	ATRF Welcome Drinks for ATRF delegates only				Exhibition Hall Foyer

Thursday 27 September 2012

Time	Session	Location
8.00 - 9.00 am	Registration & welcoming tea and coffee	Exhibition Hall Foyer
9.00 - 10.30 am	Parallel technical sessions & workshop	
3.1 The Social Impact of Transport Planning on Young People Hamersley Room	3.2 Transport Safety Goldsworthy Room	3.3 Regional Transport Services Mt Newman Room
Chair: Ms Cathryn Gazey, TravelSmart Workplace Project Officer, Department of Transport, Western Australia	Chair: Ms Lisa Fanciulli – Director Strategic Transport Policy, Department of Transport, Western Australia	Chair: Professor Peter Stopher – Professor of Transport Planning, University of Sydney
The impacts of transport accessibility and remoteness on Australian Football League (AFL) talent production Dr Matthew Burke Assoc Prof Geoff Woolcock AUSTRALIA	Evaluate the necessity of using the navigation system for blind people in urban areas (based on case-study research in Tehran) Kamran Rahimov Amirreza Nickkar Hassan Khaksar IRAN	Develop business cases for regional rail stations: a Victorian case study Alex Gu Clinton Kenna Matthew Raisbeck AUSTRALIA
Children's cycling in Australia: a review of determinants, the role of social connectedness and implications for policy and practice Kala Wati Dr Matthew Burke Dr Neil Sipe AUSTRALIA	Linking a public policy and community attitudes to safety (driving) Chirag Pathak Daniel Gregg David Gargett AUSTRALIA	The transportation of sugar cane in Queensland's sugar industry Steffanie Pernase Adam Pekol AUSTRALIA
Investigating social and spatial dimensions of mobility with children and young people in Blacktown, Western Sydney Anne Hurni AUSTRALIA	The role of geographic information systems (GIS) in road emergency services location and black spot studies Alireza Toran Pour Dr Wen Long Yue AUSTRALIA	Efficient procurement of public air services – lessons learned from European transport authorities' perspectives regions? Rico Merkert Basil O'Fee AUSTRALIA
Workshop Grand River Ballroom		Transport Energy – Can we kick our Oil Habit? Facilitators: Dr Brett Smith – Lecturer Management and Organisations, University of Western Australia Nick Wills-Johnson – Senior Consultant, ACIL Tasman
10.30 - 11.00 am	Morning tea	Exhibition Hall Foyer

11.00 - 12.30 pm	Parallel technical sessions & workshop		
4.1 Transport Innovation and Integration Hamersley Room	4.2 Behaviour and Travel Goldsworthy Room	4.3 Transport Policy & Planning Mt Newman Room	Workshop Grand River Ballroom
Chair: Mr Luke O'Donoghue – Director Sustainable Energy, Department of Transport, Western Australia Acceptability of electric vehicles: findings from a driver survey Fakhra Jabeen Doina Olaru Brett Smith Thomas Braunl Stuart Speidel AUSTRALIA How is it travelling? Evaluating the TravelSmart local government officer program Dr Kylie Murphy AUSTRALIA Engaging Perth workplaces for sustainable transport: an evaluation of the TravelSmart work program David Wake AUSTRALIA	Chair: Ms Honor Putland – Principal Policy Officer, Department of Transport, Western Australia Qualitative research into motivations for cycling Russell Greig AUSTRALIA More people cycling more often-commuter cycle training in TravelSmart workplaces Helen McAuley AUSTRALIA Transforming Auckland into a bicycle-friendly city: understanding factors influencing choices of cyclists and potential cyclists Judith Y T Wang Leila Mirza Alan K L Cheung Siamak Moradi NEW ZEALAND	Chair: Dr Paul Mees – Senior Lecturer, RMIT University Towards a framework for evaluating financing alternatives for High Speed Rail along the East Coast of Australia Liesel Henn Keith Sloan Neil Douglas AUSTRALIA Towards sustainable urban freight distribution– a proposed evaluation framework Jintawadee Suksri Raluca Raicu Wen Long Yue AUSTRALIA Planning for the unplanned: an international review of current approaches to service disruption management of railways Brendan Pender Graham Currie Alexa Delbosc Nirajan Shiwakoti AUSTRALIA	Transport Energy – Can we kick our Oil Habit? (Repeated) Facilitators: Dr Brett Smith – Lecturer Management and Organisations, University of Western Australia Nick Wills-Johnson – Senior Consultant, ACIL Tasman
12.30 - 1.15 pm	Lunch		Exhibition Hall Foyer
1.15 - 2.45 pm	Parallel technical sessions & workshop		
5.1 Transport Accessibility Hamersley Room	5.2 Transport Modes Goldsworthy Room	5.3 Transport Technology Mt Newman Room	Workshop Grand River Ballroom
Chair: Ms Briarlea Green – Team Leader Research and Consulting, ARRB Group Is behavioural utility measure a valid proxy for accessibility improvement? Blake Xu AUSTRALIA Incorporating intra-household interactions into a tour-based model of public transport use in car-negotiating households Chinh Ho Corinne Mulley AUSTRALIA Benchmarking public transport accessibility in Australasian cities Carey Curtis Jan Scheurer AUSTRALIA	Chair: Dr David Gargett – Senior Researcher, Bureau of Infrastructure, Transport and Regional Economics Assessing efficiency of a transit oriented development (TOD) by comparative analysis Deepti Muley Jonathan Bunker Luis Ferreira INDIA Exploring first impressions of public transport services through a university access survey Lorelei Schmitt Graham Currie Alexa Delbosc AUSTRALIA 30 years of Australian transport policy: what makes for success? Phil Potterton AUSTRALIA	Chair: Dr Godfrey Lubulwa, Senior Analyst, Bureau of Infrastructure, Transport and Regional Economics The Australian low carbon transport forum: estimating emission abatement potential for Australian transport David Cosgrove David Gargett Caroline Evans Paul Graham AUSTRALIA Public policy options for the problem of public transport as a common pool resource Leigh Glover AUSTRALIA The transport policy and planning implications of electric cars for Australian cities Andrew Allan AUSTRALIA	The Transport Response to Peak Car Use Facilitators: Dr Brett Smith – Lecturer Management and Organisations, University of Western Australia Nick Wills-Johnson – Senior Consultant, ACIL Tasman

2.45 - 3.15 pm	Afternoon tea – Sponsored by Perth Airport		Exhibition Hall Foyer
3.15 - 4.45 pm	Parallel technical sessions & workshop		
6.1 Transport Data Analysis & Applications Hammersley Room	6.2 Travel & Behaviour Goldsworthy Room	6.3 Urban Transport & Mobility Mt Newman Room	Workshop Grand River Ballroom
Chair: Mr Alexandre Torday, PhD – Managing Director, AIMSUN An assessment framework of alternative bus reliability indicators Graham Currie Neil Douglas Ian Kearns AUSTRALIA / NEW ZEALAND Exploring the impacts of transit priority measures using automatic vehicle monitoring data Graham Currie Kelvin Goh Majid Sarvi AUSTRALIA Benefits and issues for bus travel time estimation and prediction: state-of-the-art Le Minh Kieu Ashish Bhaskar Edward Chung AUSTRALIA	Chair: Mr Gary John – Manager, Behaviour Change Strategies Department of Transport, Western Australia Calculating time-to-collision for analysing right turning behaviour at signalised intersections Amir Sobhani William Young Sareh Bahrololoom Majid Sarvi AUSTRALIA Why building it doesn't always mean they will come. Understanding reactions to behaviour change measures Ben Kent Elizabeth Ampt AUSTRALIA People with disabilities: the forgotten road-user group Alice Haning AUSTRALIA	Chair: Mr David Wake – TravelSmart Workplace Project Officer, Department of Transport, Western Australia Analysing retail travel behaviour using an Australian data set Maryam Shoebeirinejad Dr Matthew Burke Dr Neil Sipe AUSTRALIA Eco-driving in the Australian context Michael Roth Genevieve Graves AUSTRALIA Analysis of Western Australian electric vehicle and charging station trials Stuart Speidel Fakhra Jabeen Doina Olaru David Harries Thomas Braunl AUSTRALIA Demographics do matter: an analysis of people's travel behaviour from different ethnic groups in Auckland (No presentation) Alfian Syam NEW ZEALAND Not everyone gets a back pack; developing a targeted approach to travel behaviour change (No presentation) Joanne McGill Nicola Church Danielle Gleeson Adam Rogers Kellie Doonan AUSTRALIA	The Transport Response to Peak Car Use (Repeated) Facilitators: Dr Brett Smith – Lecturer Management and Organisations, University of Western Australia Nick Wills-Johnson – Senior Consultant, ACIL Tasman
4.45 – 5.15pm	BREAK		
5.15 - 6.30 pm	ATRF Pre-Dinner Drinks in the Sponsors Area		Exhibition Hall Foyer
6.30 - 10.30 pm	ATRF Dinner - Sponsored by the Department of Transport and Perth Airport		Golden Ballroom

Friday 28 September 2012

Time	Session	Location
8.00 – 9.00 am	Registration & welcoming tea and coffee	Exhibition Hall Foyer
9.00 – 10.30 am	Parallel technical sessions	
7.1 Travel Behaviour Hammersley Room	7.2 Urban Transport & Mobility Goldsworthy Room	7.3 Traffic Flow Analysis Grand River Ballroom
<p>Chair: Mr Ronnie Paulus – Consultant, PTT</p> <p>The 0km journey to work – travel behaviour of Sydney’s home-based workforce Kerry Shaz Grace Corpuz AUSTRALIA</p> <p>Engaging young minds. Addressing school travel challenges through innovation. Dorte Hansen James Peart Gary John AUSTRALIA</p> <p>Smart evaluation leads to smarter travel delivery – understanding the what and why David Freer AUSTRALIA</p>	<p>Chair: Mr Brendan O’Keefe - Principal Engineer, Policy and Strategy, Brisbane City Council</p> <p>Understanding ownership and use of powered two wheelers in Melbourne Geoff Rose Russell G. Thompson Babak Amani Rod McClure AUSTRALIA</p> <p>More productive space and time John Stephens Dr David Adams AUSTRALIA</p> <p>Medium term effects of London’s low emission zone Richard B. Ellison Stephen Greave David A. Hensher AUSTRALIA</p>	<p>Chair: Mr Anatoli Lightfoot – Senior Analyst, Bureau of Infrastructure, Transport and Regional Economics</p> <p>Intersecting and merging pedestrian crowd flows under panic conditions: insights from biological entities Charitha Dias Majid Sarvi Nirajan Shiwakoti AUSTRALIA</p> <p>Framework for traffic pattern identification: required step for short-term forecasting Jordi Casas Aleiz Ruiz de Villa Alex Torday SPAIN</p> <p>Effective variables on car-following behaviour of heavy vehicle drivers Kayvan Aghabayk Majid Sarvi William Young AUSTRALIA</p>
10.30 – 11.00 am	Morning tea	Exhibition Hall Foyer

11.00 – 12.30 pm	Parallel technical sessions		
8.1 The Importance of Community in Transport Planning Hammersley Room	8.2 Transport Planning Goldsworthy Room	8.3 Analysis of the Interaction of Young People & Travel Grand River Ballroom	
Chair: Dr David Cosgrove – Principal Research Scientist, Bureau of Infrastructure, Transport and Regional Economics A case study for engagement with passionate groups: rail crossings on the Caulfield to Dandenong railway line Colin Lill Tarmi Kane AUSTRALIA The North West rail link: winners and losers in the locality of the North West area Geoffrey T. Clifton Corinne Mulley David A. Hensher AUSTRALIA Precinct wide travel plans – learnings from Rouse Hill Town Centre Sue Wiblin Corinne Mulley Stephen Ison AUSTRALIA	Chair: Dr Peter Cock – Executive General Manager Operations & Customer Experience, Perth Airport Modelling air passenger movements through Australia’s non-capital city airports Krishna Hamal AUSTRALIA Parking and mode choice in Sydney: evidence from the Sydney household travel survey Annette Hay Kerry Shaz AUSTRALIA Can exclusion factors be priced? Michael Brennan Brett Smith Doina Olaru AUSTRALIA	Chair: Mr Ben Kent – Project Leader TravelSmart and Living Smart Households, Department of Transport, Western Australia Analysis of child diaries– can GPS traces of parent’s movements provide sufficient travel data for children? Peter Stopher Christine Prasad AUSTRALIA A systematic review of children’s travel behaviour change programs in Australia Farinaz Moghtaderiesfahani Dr Matthew Burke Dr Jago Dodson AUSTRALIA Using online discussion forums to study attitudes toward cars and transit among young people in Victoria Alexa Delbosc Graham Currie AUSTRALIA	
12.30 – 1.15 pm	Lunch		Exhibition Hall Foyer
All delegates to move to the Grand River Ballroom			
1.15 – 2.30 pm	Plenary session – Concluding Shaping the Future Mr Brett Hughes , (Chair) Executive Director - Transport Policy and Systems (ED TPS), Department of Transport Western Australia Plenary Speakers: Emeritus Prof John H Taplin , Senior Honorary Research Fellow, Transport and Logistics, University of Western Australia (formerly Director General of Transport WA) – ATRF Origins Mr Richard Yeo , Executive Manager, National Interest Services Group, Australian Road Research Board Group – ARRB Perspective Mr Ian Ker – Report from Workshops Presentation of Awards: <ul style="list-style-type: none"> • John H Taplin, Prize Best Research Paper 2012 • David Willis, Memorial Prize, Best Research Student Paper 2012 Mr Brendan O’Keeffe Principal Engineer, Policy and Strategy, Brisbane City Council – ATRF 2013 Introduction Mr Brett Hughes ED TPS - ATRF 2012 Conclusions and Closure		Plenary room Grand River Ballroom
ATRF Conference Close			

Saturday 29 September 2012

Time	Session	Location
8.30 - 9.00 am	Assemble for Technical Tours	Pan Pacific Reception Area
9.00 - 12.00 pm	<p>Tours depart from and return to the Pan Pacific Perth, 207 Adelaide Tce Perth</p> <p>Tour Details:</p> <ol style="list-style-type: none">1. <u>Perth Airport and Gateway Development Technical Tour</u> – Bus – Host: Perth Airport (Note: Participants require recent photo identification e.g. licence / passport).2. <u>Fremantle Ports Technical Tour</u> – Bus – Host: Fremantle Port Authority3. <u>Elizabeth Quay – Perth Central Rail Sinking and Northbridge Link Developments</u> – Walking - Technical Tour – Host: Metropolitan Redevelopment Authority. <p>NB: Tours are dependent on minimum numbers.</p> <p>Please pre-nominate for Technical Tours to: meesha@impcom.com.au</p>	

The ARRB conference commences Sunday 23 September 2012
Visit www.arrb.com.au/conferences for further information

