



Planning and Transport Research Centre

# ANNUAL REVIEW 2008



Department for Planning  
and Infrastructure



The Planning and Transport Research Centre (PATREC) is a collaboration between the four public universities of Western Australia, Curtin University of Technology, Edith Cowan University, Murdoch University and The University of Western Australia. It also receives financial support from the Government of Western Australia (through the Department for Planning and Infrastructure and Main Roads Western Australia).



**PATREC**

**PATREC  
PLANNING AND TRANSPORT RESEARCH CENTRE  
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## *PATREC and a more strategic focus...*

2008 saw PATREC engaged on a wide range of activities with interactions across the four public universities, government and industry in Western Australia. While there were significant achievements during the year, such as completion of a strategic plan for public transport in the next decade for Perth and establishment of the Curtin Monash Universities Accident Research Centre, many activities were of an enabling rather than a strategic nature.

I, together with the Executive Director, met with each Board member mid year and the consensus reached was a desire for PATREC to engage in a more strategic and influential way, by delivering real and substantial policy and planning initiatives for the State, in capacity building and in knowledge transfer from research to practice. The Board will consider a new strategic plan for PATREC, incorporating this strategic focus, at its first meeting in 2009.

PATREC promoted stronger relationships across the university, industry and government sectors in 2008 with sponsorship of visiting research fellows Dr John Renne and Professor Katsutoshi Ohta, arranging professional short courses, symposia, the Fourth Annual PATREC Research Forum and hosting the Connection Breakfast/Lunch series. Feedback from researchers, students and practitioners has strongly encouraged PATREC to continue to organise these events.

The final Connection Lunch, which featured Michael Deegan, Infrastructure Coordinator for Infrastructure Australia, drew an audience of 170. This demonstrated the opportunity exists to engage more widely and with the most senior levels of industry, government and the community to develop active relationships and address planning and transport issues of State significance.

A number of changes in Board presentation occurred in 2008 and I pay tribute to Professors Jane den Hollander, Doug McEachern and Jim Reynoldson, each of whom provided strong support for PATREC up to and through the 2007 PATREC Review. Their support and commitment has provided a firm foundation for the new strategic focus now being developed in PATREC. I welcome and look forward to working with Professors Linda Kristjanson and David Harries and Mr Tim Shanahan, who have taken up positions and already shown their enthusiasm for directing PATREC into and through 2009.

PATREC has established a profile and reputation for adding value in its endeavours and I am confident that the Board and management team will extend this engagement in 2009 and build on achievements.

Stuart Hicks AO  
Chair  
Planning and Transport Research Centre



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## **PATREC Contacts**

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## **Highlights**

### **Board Membership**

- Professors Linda Kristjanson, David Harries and Mr Tim Shanahan joined the Board

### **Board Decisions**

- University subscriptions to PATREC determined and approved
- Review of PATREC Operations with individual Board
- In-principle agreement to a PATREC Research Scholarship Fund

### **Professional Education**

- MTS students - 1 dissertation submitted, 6 to complete dissertation, 1 completed a Graduate Diploma, 1 to complete graduate Diploma in Semester 1 2009, 2 on leave of absence till Semester 2, 2009, and 2 have withdrawn
- Professional short courses and four research symposia
- Annual Research Forum

### **Research Program**

- A Strategic Plan for the Next Decade of Public Transport in Perth was completed for the Public transport Authority
- Establishment of the Curtin Monash Universities Accident Research Centre (C-MUARC) based in Curtin
- Two ARC Linkage Grant submissions
- Grant income from PATREC initiated research projects/programs in 2008 was \$100,000

### **Collaborative Activities**

- Representation on University Research Centre Advisory Boards
- Conference - *The Future of Roads to Remote Communities*

### **Finance**

- The cash balance in PATREC was \$137,424 as at 31 December 2008

## Governance

### The Board

At 31 December 2008 PATREC's Board comprised the following members:

Adj Prof Stuart Hicks AO	Independent Chairman
Prof Linda Kristjanson	Representing Curtin University of Technology
Prof Robert Harvey	Representing Edith Cowan University
Prof David Harries	Representing Murdoch University
Mr Tim Shanahan	Representing The University of Western Australia
Mr Eric Lumsden PSM	Representing the Department for Planning and Infrastructure
Mr Menno Henneveld	Representing Main Roads Western Australia

**Adjunct Professor Stuart Hicks AO, BEc, FAIM, FCILT, FAICD, MIMC** is also Chairman of the East Perth Redevelopment Authority and Chairman of the John Curtin Institute for Public Policy at Curtin University of Technology. He is a former Chairman of the National Transport Commission and former Director General of Transport in Western Australia. Stuart holds separate appointments as Adjunct Professor at Curtin University of Technology, Edith Cowan University, Murdoch University and The University of Western Australia

**Professor Linda Kristjanson RN, BN, MN, PhD** is Deputy Vice Chancellor, Research and Development at Curtin University of Technology. Professor Kristjanson replaced Professor Jane den Hollander at the Board meeting on 22 October 2008.

**Professor Robert Harvey BEc (Hons), MBA** is Executive Dean in the Faculty of Business and Law and Pro Vice Chancellor, Equity & Indigenous at Edith Cowan University.

**Professor David Harries Ph.D, M.Env.Stud, Dip.Ed, B.Sc** is the Director of RISE, Faculty of Minerals and Energy Research, Institute for Sustainable Energy at Murdoch University. Professor Harries replaced Professor Reynoldson at the Board meeting on 22 October 2008.

**Mr Tim Shanahan LLB, PSM** is the Director of the Energy and Minerals Initiative at The University of Western Australia. He replaced Professor McEachern at the Board meeting on 26 March 2008.

**Mr Eric Lumsden PSM, MBA, LifeFPIA, FLGMA, FAIM** is the Director General of the Department for Planning and Infrastructure, Western Australia

**Mr Menno Henneveld BE, PGDiplAdmin, FIEAust, FAICD, MCILT** is the Commissioner of Main Roads Western Australia



## Management Team

Professor Greg Martin PSM is the Executive Director and Ms Tania Carter is the Business Manager for PATREC.

## PATREC Memorandum of Understanding

The four participating universities have approved extension of the MOU for a second five year term to 31 December 2012.

## Board Meetings and Decisions

*The Board met on 26 March and 22 October 2008.*

The meeting scheduled for 4 June 2008 was deferred to allow the Chair and Executive Director to meet with the universities and government agencies to make better use of PATREC's connections and allow more work to be done to build the PATREC research program.

Feedback and opportunities for PATREC arising from the meetings included:

- *PATREC retains the benefits identified at its establishment, being collaboration across the four universities, to promote opportunities for government funding support and to maximise research and educational opportunities through linkages between the universities, industry and government.*
- *Finding researcher capacity has been a challenge and as a consequence limited fee income has been generated. The focus of attention has been on bringing value and revenue to the universities through the efforts of PATREC rather than concentrating on producing PATREC fee income.*
- *The mutual dependency of PATREC and each university for producing results.*
- *PATREC and the universities should concentrate on more strategic and sustaining activities, rather than on small and short term activities.*
- *The foundation of capacity building across universities, industry and government, which has driven PATREC, should be expanded to the broader objectives of generating value for the state of Western Australia and influencing outcomes through collaboration. In the current political and economic environment, linking to national planning and transport initiatives, such as infrastructure planning, prioritizing and financing, represents an opportunity for PATREC to coordinate a critical mass of resources to research and propose plans*

*and strategies for positioning Western Australia. Demand for mineral and energy resources, climate change, transport energy, productivity and international competitiveness are all issues requiring a longer term view for the state and its place in the national scene.*

- *The national agenda is also addressing issues for major cities, including urban congestion, planning standards and systems, urban sprawl, social inclusion, freight routes and access to ports. Clearly in the Western Australian context, the economic and social development in the regions is also deserving of serious attention in the face of competition for Australian Government financial assistance by jurisdictions on the Eastern seaboard.*
- *Enabling activities under active consideration at national level include strategic research and technology; education, skill development and training; data collection, information assembly and analysis; and creation of sustaining centres of excellence.*

The Board accepted the summary and conclusions.

### **Postgraduate Courses and Electives**

At its meeting on 20 June 2007, the Board agreed that the MTS/GDTS program in its present form using present delivery modes was not viable and new enrolments were suspended in each university. Currently enrolled students would be assisted to complete their qualifications.

It was agreed that PATREC should reposition to be predominantly a course broker rather than a supplier. The Board endorsed the approach whereby PATREC in conjunction with university partners, identified existing postgraduate courses with supplementary unit offerings to planning and transport professionals and practitioners.

This information was placed on the PATREC website in March 2008.

### **PATREC Overhead Recovery Fee**

The Board agreed that the application of a PATREC overhead recovery fee be decided on a case by case basis, be applied when considered reasonable based on the contribution made by PATREC and the Client's willingness to pay, and generally applied at a rate of 10% of the project research budget.

## Research Capacity

The Board gave in-principle agreement to a PATREC Research Scholarship Fund for domestic and international students and asked for a formal proposal to be presented to the Board.

## PATREC Strategic Plan

The Board asked for a new strategic plan to be presented to the February 2009 meeting.

## Financial Contributions

The universities and government agencies have agreed to financial contributions for 2009.

The contributions agreed are as follows:

- Curtin University of Technology \$ 80,000 per annum
- Edith Cowan University \$ 20,000 per annum
- Murdoch University \$ 20,000 per annum
- The University of Western Australia \$ 80,000
- Department for Planning and Infrastructure \$140,000 per annum
- Main Roads Western Australia \$100,000 per annum

## Academic and Research Staff/Students

Professor Elizabeth Chang	Director, Digital Ecosystems and Business Intelligence Institute	Curtin University of Technology
Dr Trudi Cooper	Lecturer, School of Community Services, Education and Social Sciences	Edith Cowan University
Dr Carey Curtis	Professor of Urban and Regional Planning	Curtin University of Technology
Professor Tharam Dillon	Research Fellow, Digital Ecosystems and Business Intelligence Institute	Curtin University of Technology
Mike Dockery	Research Associate, Economics and Finance	Curtin Business School
Dr Lance Fung	Associate Professor, School of Information Technology	Murdoch University
John Georgiades	Adjunct Associate Lecturer, Faculty of Business and Law	Edith Cowan University
Professor Billie Giles-Corti	Director, Centre for Built Environment and Health	The University of Western Australia
Dr David Harries	Director of RISE, Faculty of Minerals and Energy Research, Institute for Sustainable Energy	Murdoch University
Izumi Hart	PhD candidate, School of Psychology	Murdoch University
Delia Hendrie	Lecturer, School of Public Health	Curtin University of Technology
Carlindi Holling	Research Associate, Housing and Urban Research Institute of WA	Curtin University of Technology

Dr Farookh Hussain	Research Fellow, Digital Ecosystems and Business Intelligence Institute	Curtin University of Technology
Ngoc Quang La	PhD Student	Curtin University
Dr Peter Lawrence	Adjunct Associate Professor, Faculty of Business & Law	Edith Cowan University
Dr Terry Love	Research Fellow, School of Engineering	Edith Cowan University
Dr Katrina Lyon	Lecturer, School of Electrical, Energy and Process Engineering	Murdoch University
Anusha Mahendran	Research Associate, Economics & Finance	Curtin Business School
Dr Fiona McKenzie	Director, Housing and Urban Research Institute of WA	Curtin University of Technology
Dr Lynn Meulners	Senior Research Fellow, Public Health	Curtin University of Technology
Dr Peter Newman	Professor of Sustainability	Curtin University of Technology
Dr Doina Olaru	Lecturer, Information Management and Transport	The University of Western Australia
Dr Terri Pikora	DPI Research Fellow in Marine Safety, Injury Research Centre	The University of Western Australia
Dr Vidyasagar Potdar	Research Fellow, Digital Ecosystems and Business Intelligence Institute	Curtin Business School
Dr Min Qiu	Senior Lecturer, Information Management and Transport	The University of Western Australia
John Smoker	PhD candidate, Curtin University Sustainability Policy Institute	Curtin University of Technology
Yu Chao Sun	PhD candidate, Information Management and Transport	The University of Western Australia
Dr John Taplin AM	Professor of Information Management and Transport	The University of Western Australia
Dr Reena Tiwari	Senior Lecturer, School of Architecture and Construction	Curtin University of Technology
Dr Malcolm Tull	Associate Professor of Economics	Murdoch University
Nick Wills-Johnson	ARG Research Fellow in Railway Competition Policy	Curtin University of Technology
Clare Yu	PhD candidate, Information Management and Transport	The University of Western Australia

## Professional Education

### Master of Transport Studies

During 2007, thirteen students participated in the program. With the decision to suspend further enrolments, arrangements have been made with each university for all current students to complete core MTS/GDTS units in 2008. While all students are being encouraged to complete the Masters degree, it is anticipated that some students may curtail their MTS course to Graduate Certificate or Graduate Diploma level.

## Student Completions Status

6	Dissertations to complete
1	Dissertation submitted in 2008
1	Completed with a Grad Dip
1	Completing with Post Grad Dip in Semester 1 2009
2	Taken a leave of absence to return in Semester 2 2009
2	Withdrawn from GDTS

## Master of Commerce

Exploratory discussions have been held with Professors David Plowman and John Taplin of the UWA Business School about incorporating transport and logistics units within a Master of Commerce course degree.

## Professional Short Courses

The following courses were offered:

21 to 24 April 2008	<i>Urban Design for Sustainability</i> (Curtin, Murdoch and UWA)
24 June 2008	<i>Transit Oriented Development Toolbox for Planners in Western Australia</i> - Dr John Renne, University of New Orleans (PATREC and Curtin)
27 August 2008	Master Class for DPI and PTA on <i>Public Transport and Strategic Planning</i> - Professor Katsutoshi Ohta, Toyo University, Japan (PATREC)

## Public Lectures

11 February 2008	<i>Placemaking for people - Bogotá gives the lead</i> - Dr Enrique Peñulosa, former Mayor of Bogotá at UWA (Visit from 9 to 12 February arranged and coordinated by PATREC - included meetings with State and local government and an academics workshop at Murdoch University)
23 June 2008	<i>Hurricane Katrina - Evacuation Preparedness</i> - Dr John Renne at ECU
26 August 2008	<i>Unsustainable Cities</i> - Professor Katsutoshi Ohta at UWA

## Conferences, Symposia and Seminars

*The Built Environment and health: Are we headed in the right direction?*  
Symposium by PATREC in conjunction with the UWA Centre for Built Environment and Health and the Premier's Physical Activity Task Force at UWA on 6 March 2008.

### *Rail Freight Economics*

Symposium convened by PATREC and held at the Curtin Graduate School of Business on 12 March 2008.

### *Transit Oriented Development: What have we learnt about implementation?*

Symposium convened by PATREC and held at the Curtin Graduate School of Business on 26 June 2008.

### *Facing North: Public and Private Ports in Western Australia and Asia*

Seminar convened by PATREC and Murdoch Business School and held at Murdoch University on 18 November 2008.

## Fourth Annual PATREC Research Forum 2008

The Fourth Annual PATREC Research Forum was held at Edith Cowan University on 2 October 2008.

8:30- 8:40	<b>Welcome</b> <b>Prof Greg Martin PSM, Executive Director, PATREC</b>	
8:40 - 9:20	Railway Dreaming: Lessons for economic regulators from Aboriginal resource management lore <i>Nick Wills-Johnson, Senior Research Fellow in Railway Economics, Curtin University of Technology</i>	
9:20 - 10:00	Coastal port reform in China <i>Min Qiu, University of Western Australia, Business School</i>	Perth's Metro Rail <i>Peter Martinovich, Director of Rail Infrastructure Planning Public Transport Authority of WA</i>
10:00 - 10:40	An Overview of Economic Costs of Road Traffic Accidents in Gulf Countries <i>Ali Mohammed Darabi Golshani, Hamid Nikraz, Department of Civil Engineering, Curtin University of Technology</i>	Forecasting the Workforce Needs of the Australian Rail Transport Industry (ARTI) <i>Anusha Mahendran, Michael Dockery, Centre for Labour Market Research, Curtin University of Technology</i> <i>Vehicle Routing in Reverse Logistics</i>
10:40 - 11:00	<b>Morning Tea</b>	
11:00 - 11:40	User Response to Traffic Information in the New Age of Innovative Telecommunication Technologies <i>Jingqiu Guo, University of Western Australia, Business School</i>	Behavioural responses to peak oil and carbon pricing: Save '70 cents a litre' by driving less <i>Colin Ashton -Graham, Department for Planning &amp; Infrastructure</i>
11:40 - 12:20	Modelling accessibility and connectivity to tourist attractions using Geographic Information System (GIS): a case study of Ningaloo region, WA <i>Saad Jubran H Al Kahtani, Cecilia Xia, Bert Veenendaal, Curtin University of Technology</i>	Serving passengers - Are you being served? <i>Kerry Shaz, Grace Corpuz, Ministry of Transport</i>
12:20 - 1:00	<b>Lunch</b>	

1:00 – 1:40	Improving Pedestrian Access Way Planning via Designing Out Crime  <i>Dr Terence Love, Dr Paul Cozens, Design Out Crime research group.</i>	Overview of the Perth Hydrogen Fuel Cell Bus Trial  <i>Luke O'Donoghue, Department for Planning &amp; Infrastructure</i>
1:40 – 2:20	Futures methodology for crime prevention in Southern Rail Corridor  <i>Trudi Cooper, Paul Cozens, Terry Love, Joe Clare, Frank Morgan, Edith Cowan University</i>	Who guards our guardians? The use of ethnography to study how railway transit officers avoid injury  <i>Christine Teague, Edith Cowan University, Dr David Leith, Leith Communicatins</i>
2:20 – 2:40	<b>Afternoon Tea</b>	
2:40 - 3:20	Issues in Measuring Travel Behaviour Change  <i>Ian Ker, CATALYST (Consulting in Applied Transport, Access and Land use sYSTEMs)</i>	
3.20 - 4:00	Traffic Management and Place-Making Aspects of Urban Arterials  <i>Reena Tiwari, Carey Curtis Curtin University of Technology</i>	
4:00 - 4:40	Living on the Edge: Transport Sustainability in Perth's Liveable Neighbourhoods  <i>Ryan Falconer, Sinclair Knight Merz Peter Newman, Curtin University of Technology, Billie Giles-Corti, University of Western Australia</i>	
4:40 - 5:00	<b>Summary and Conclusion</b>	
5:00 - 5:30	<b>Refreshments and Prize Award (Building 21, Rm 205)</b>	

*Associated papers are available at*  
[http://www.patrec.org/conferences/PATRECForum\\_Oct2008/index.php](http://www.patrec.org/conferences/PATRECForum_Oct2008/index.php)

## Visiting Fellows Program

Dr John Renne, University of New Orleans, USA - 17 to 30 June 2008  
- sponsors DPI, PTA, LandCorp, Satterley

Professor Katsutoshi Ohta, Toyo University, Japan - 25 to 28 August 2008

## PATREC Connection Breakfasts/Lunch

2 Connection Breakfasts and one luncheon were hosted by PATREC for researchers, students, funding partners and collaborators to engage in research and policy based discussion and networking.

- |             |  |
|-------------|--|
| 4 April     | <i>Transit oriented development: challenges and opportunities</i> - Martin Richardson, Executive Director Urban Policy, Department for Planning and infrastructure |
| 1 August    | <i>Western Australia - Transport Challenges</i> - Tim Shanahan, Director, Minerals and Energy initiative at UWA  |
| 28 November | <i>Challenges of Nation Building</i> - Michael Deegan, Infrastructure Coordinator, Infrastructure Australia  |

## Curtin Corner

PATREC and the John Curtin Institute of Public Policy jointly sponsored a weekly guest presentation and discussion group throughout 2008.

<b>Date</b>	<b>Speaker</b>	<b>Title</b>	<b>Abstract Y/N</b>
23 <sup>rd</sup> Feb	Fred Affleck & Fiona McKenzie	Affordable Housing in a Transport Oriented Development Precinct: is this an oxymoron?	Y
2 <sup>nd</sup> Mar	Reg Appleyard	Water Policy and the Kimberley	Y
9 <sup>th</sup> Mar	Heather Jenkins	ADHD: Myths and realities	Y
16 <sup>th</sup> Mar	Alan Fenna	IQ, Institutions and Economic Performance	Y
23 <sup>rd</sup> Mar	Nick Wills-Johnson	What the shape of transport networks can teach us about the shape of society	Y
30 <sup>th</sup> Mar	James Biggs	Perth Observatory: Over a century of studying heaven from Earth	Y
13 <sup>th</sup> Apr	John DeLaeter	Western Australia's Square Kilometre Array Radio Telescope	Y
20 <sup>th</sup> Apr	Kevin Rosman	Measuring the impact of the Romans in two thousand year old Greenland Ice	Y
27 <sup>th</sup> Apr	Tony Lucey	The biomechanics of human snoring	Y
4 <sup>th</sup> May	Annaliza Jackson	Constructing Masculinity Under Abusive Conditions	Y
11 <sup>th</sup> May	Kieran Kinsella	Midland's Revitalisation	Y
18 <sup>th</sup> May	Richard Mann	New MetroRail City Project: Light at the End of the Tunnel <i>parking done</i>	Y
25 <sup>th</sup> May	Cesar Ortega-Sanchez	'Artificial Life: When? How? Why?'	Y
1 <sup>st</sup> Jun	Rudi Appels	Impact of biotechnology on the food supply "pipeline" with a focus on the drivers for innovation	Y
8 <sup>th</sup> Jun	Ben Wyatt	The Future of Local Government and Regional Development	Y
15 <sup>th</sup> Jun	Barbara Horner	Ageing-in-place – real implications for families and service providers	Y
22 <sup>nd</sup> Jun	Adam Dunn	A computer scientist's perspective on landscape ecology and social networks	Y
29 <sup>th</sup> Jun	Hon John Cowdell	Burying the State Constitution	Y
6 <sup>th</sup> Jul	Phillip Skelton & David Mickler	Peacekeeping – but first make a peace to keep	Y
13 <sup>th</sup> Jul	Krishna Sappal	Australian Coal and the Clean Coal Technologies	Y
20 <sup>th</sup> Jul	Lyn McKay	'Voting - taking the temperature of community interest'	Y
27 <sup>th</sup> Jul	Sandy Bond	Cell phone towers and real estate values	Y
3 <sup>rd</sup> Aug	Cosmo Howard	Explaining the demise of democratic service delivery in Centrelink	Y
10 <sup>th</sup> Aug	Bruce Robinson	"Peak Oil. What are the probabilities that the rate of global oil production will start its final decline soon?"	Y
17 <sup>th</sup> Aug	Leon Straker	Children and Computers - a recipe for health problems?	Y
24 <sup>th</sup> Aug	David Bennett & Hongwei Wu	Biofuels - A way out of oil dependency? A way to garner electoral votes? A threat to World food supplies? or all three?	Y
31 <sup>st</sup> Aug	Chris Birdsall Jones	Indigenous Homelessness and Household Overcrowding	Y



7 <sup>th</sup> Sept	Hon Bob McMullan (Federal Member for Fraser in the ACT)	Federal/State Reform in a post-Howard era	Y
14 <sup>th</sup> Sept	Dani Stehlik	Intergenerational transitions in rural Western Australia: an issue for sustainability?	Y
21 <sup>st</sup> Sept	Greg Craven	The 2007 Election: Wider Directions and Implications	Y
28 <sup>th</sup> Sept	Pauline Sadler & Dale Pinto	Applied Law & Policy - an Area of Research Excellence in CBS	Y
5 <sup>th</sup> Oct	Greg Martin	Integrated Transport Planning OK – but why does differentiation rule?	Y
12 <sup>th</sup> Oct	Alison Preston & Therese Jefferson	Casualties and Consequences of a Deep-Seated Competition Culture: Insights from Australia	Y
19 <sup>th</sup> Oct	Geoff West	Smart Houses for the Aged – solutions and problems	Y
26 <sup>th</sup> Oct	Donovan D. Rypkema President, Heritage Strategies International	The Role of Heritage Buildings in Sustainable Development	Y
2 <sup>nd</sup> Nov	Jonathan Majer	Who cares about the ‘little things that run the world	Y
9 <sup>th</sup> Nov	Dawn Bennett	Creative Industries. An unwise and counter-productive term	Y
16 <sup>th</sup> Nov	John Phillimore	The Federal Election 2007 and Western Australia - who's promising what?	Y
23 <sup>rd</sup> Nov	Robyn Mayes & Amma Buckley	Living the resources boom: weighing it up in Ravensthorpe	Y

## PATREC's Research Program

### Fellowships and Scholarships

Dr Terri Pikora PhD (UWA), MPH (UWA), BHSc (Health Promotion)(ECU), AssDipAppSc (Library Media)(ECU). Dr Pikora is Marine Safety Research Fellow employed by the University of Western Australia in the Injury Research Centre (School of Population Health). This fellowship is fully funded by the Department for Planning and Infrastructure to support its marine safety programs.

Nick Wills-Johnson BEc(Hons)(UWA) is Research Fellow in the Centre for Research in Applied Economics at Curtin University of Technology. His research is being funded by Rio Tinto Iron Ore, the Department of Industry and Resources, WestNet Rail and the Australian Railroad Group Ltd up to March 2010. Nick is completing a PhD examining the impact of antitrust regulation in Australia.

## Doctoral Studies

The Executive Director is associated with the supervision of each of the following PhD students.

Dr La Ngoc Quang has a Curtin funded place as a PhD candidate in the School of Public Health and has a three year stipend funded by PATREC (ending August 2010) . The research proposal is to profile the mortality and morbidity of injuries among bus and taxi drivers, and to investigate their risk factors for road crashes in Hanoi, Vietnam.

John Smoker has a three year PATREC scholarship and support funding from Main Roads Western Australia (ending July 2009) to examine the past, present and future funding arrangements and management processes for maintaining access roads, and engagement and inclusion of remote indigenous people in governing and planning for long term viability of their communities.

Ms Izumi Hart is a PhD Student at Murdoch University and is investigating the measurement of safety perception and safety culture of the Australian rail industry. She anticipates completing in 2009.

## Collaborating Research Organisations

PATREC research collaborators
City Planning & Sustainability, Murdoch University
Curtin Business School
Faculty of Business and Law, Edith Cowan University
Faculty of Community Services, Education and Social Services, Edith Cowan University
Faculty of Law & Business, Murdoch University
Housing and Urban Research Institute of WA, Curtin University of Technology
Information Management and Transport, The University of Western Australia
Institute for Sustainability and Technology Policy, Murdoch University
Murdoch Business School
Research Institute for Sustainable Energy, Murdoch University
School of Economics and Commerce, The University of Western Australia Business School
School of Engineering, Edith Cowan University
School of Population Health, The University of Western Australia
School of Psychology, Murdoch University
School of Public Health, Curtin University of Technology
School of Urban & Regional Planning, Curtin University of Technology

## Research Partners

### PATREC research funding partners

Australasian Railway Association Inc
Australian Railroad Group Pty Ltd
Australian Research Council
City of Cockburn
City of Gosnells
City of Joondalup
City of Melville
City of Perth
City of Rockingham
City of Swan
CRC for Rail Technology
Department for Planning and Infrastructure (WA)
Department of Housing and Works (WA)
East Perth Redevelopment Authority
Fremantle Ports
LandCorp (Western Australian Land Commission)
Main Roads WA
Midland Redevelopment Authority
Office of Road Safety WA
Office Crime Prevention WA
Public Transport Authority (WA)
QR (Queensland Rail)
Western Australian Planning Commission

## Research Projects

**Rail Economics Program:** This program is funded by Rio Tinto Iron Ore, Queensland Rail and WestNet Rail and the WA Department for Industry and Resources. The current 3-year research program is being carried out by Senior Research Fellow Nick Wills-Johnson in Curtin's Centre for Research in Applied Economics.

**Small and Medium Business in TOD (Transit Oriented Development):** This project was completed at Curtin by the Housing and Urban Research Institute of WA. It is the latest in a suite of research being jointly undertaken by Curtin, Murdoch and UWA to support policy development in this field coordinated through WA's interdepartmental TOD Coordinating Committee. Funding has been provided by the Department for Planning and Infrastructure, LandCorp and the Urban Development Institute of Australia (WA) Inc.

**Road Safety Senior Research Fellowship:** Main Roads WA has funded a Senior Research Fellow in Road Safety, Dr Lynn Meuleners, to conduct a program of research in the Curtin University School of Public Health for a term of three years to March 2010.

**CREST (Centre for Research into Energy Sustainable Transport):** This Curtin and Murdoch based program was awarded a substantial WA State Centre of Excellence grant. PATREC is assisting with advice on a fleet management project.

**Optimising Urban Design for TOD:** PhD candidate Yu-Chao Sun has commenced research in the UWA School of Economics and Commerce on a project to develop a genetic algorithm for urban layout design and optimisation. Yu-Chao was awarded the 'Village at Wellard Scholarship', which is an APAI stipend from PATREC's ARC project, Impacts of Transit-Led Development in a New Rail Corridor.

**Parking policy with special reference to TOD precincts:** PhD student Ghassan Daban in the UWA School of Economics and Commerce will examine parking policies with a specific focus on its optimisation in TOD precincts.

**Intermodal planning - optimal location of container yards:** PhD candidate Dean Davidson is developing a candidature proposal for the UWA School of Earth and Geographical Sciences.

**Great Northern Highway - Carbon Reduction Projects:** Dr Katrina Lyon from Murdoch University is undertaking a series of short term projects to investigate the potential for reduced carbon footprint in road construction and novel offsets for inevitable emissions. The project is being funded by the Access Alliance (Maunsell, Main Roads WA and Brierty Contractors)

**Impacts of Transit Led Development in a New Rail Corridor:** This research, being conducted over five years under an ARC Linkage Grant, is assessing impacts of transit-oriented development (TOD) in precincts adjoining the new Perth-Mandurah railway. Its aims are to quantify the effects of TOD on rail and car use and on daily activities. Two surveys were conducted prior to opening of the rail line in December 2007 and the post opening survey was conducted in July 2008. The results of the research are expected in 2009.

**Planning and Transport Modelling Program:** This program, which is to include a freight network model for Perth, commenced in mid-2005 and has progressed slowly. The expenditure has been re-programmed and the project is expected to be completed in 2009.

**Forecasting Future Rail Demand in the Rail Industry:** This project by Anusha Mahendran and Dr Michael Dockery of the Centre for labour Market research at Curtin Business School, updated the profile of the rail workforce based on the 2006 Census to generate estimates of future labour demand and supply and highlighted the requirements of recruitment and training to address forecast shortages. The project was funded by PATREC.

**Criminal and Anti-social Behaviour on the Southern Rail Line:** The Office of Crime Prevention provided funding for research, which aimed at anticipating crime problems resulting from opening of the Southern Rail Line. The project was undertaken by researchers from the Planning and

Transport Research Centre (Edith Cowan University and Curtin University of Technology) and the University of Western Australia (Crime Research Centre).

**Strategic Plan for Public Transport Authority:** A report entitled *Future Connections: Planning for the Next Decade of Public Transport in Perth* was completed for the PTA in August 2008. The research estimated the growing demand and the additional capacity needed to provide acceptable levels of service now and in the future.

**Accident Safety Research Centre:** PATREC was involved in negotiating with the WA Office of Road Safety (ORS) and Curtin and Monash Universities to establish a collaborative Curtin-Monash Universities Accident Research Centre (C-MUARC) based in Curtin. Formal signing of the ORS funding deed and the universities collaborative agreement took place on 9 December 2008.

**Safety in the Heavy Vehicle Industry:** This research is to determine the direction and size of associations between key risk factors and heavy vehicle crashes in Western Australia. The study will be done in conjunction and concurrently with the population based case-control study of heavy vehicles currently in operation in New South Wales (NSW) and Queensland (QLD) over a three year period. The Western Australian component, funded by Main Roads Western Australia, will benefit by drawing on the University of Sydney team which is funded by an ARC grant to conduct the study in New South Wales and Queensland.

**Data Integrity and Business Intelligence:** PATREC has assisted DEBII at Curtin to submit an ARC Linkage Grant application, with funding support from the Department for Planning and Infrastructure, to conduct research into the vehicle and driver licensing data base and business processes at DPI.

**Intelligent and Effective Road Traffic Monitoring and Control:** PATREC has assisted DEBII at Curtin to submit an ARC Linkage Grant application, with funding support from Main Roads Western Australia, to develop a platform of real-time data analysis and prediction. This would provide better and new services to the road users, community and the government.

**TRELIS Licensing Data Warehouse:** Discussions between DPI, ECU and PATREC are aimed at developing a case for data stored on the WA driver licence and vehicle registration data base to be made available for research, policy and planning purposes. An opportunity scoping workshop is proposed for early 2009.

**Centre of Excellence in Road Pavement Management:** Discussions between PATREC, MRWA and UWA to develop a proposal for research into road pavement condition and road infrastructure asset management will be pursued in 2009.

## **Collaborative Activities**

### **UWA Centre for Built Environment and Health**

The Executive Director chairs the Capacity Building Grant meeting of researchers in the Centre and provides guidance on sponsorship opportunities and research program applications.

### **TOD Coordinating Committee**

The Executive Director is a member of the inter-agency coordination committee guiding development of policy and practice in transit oriented development in the Perth metropolitan area.

### **Mounts Bay Project Transport Reference Group**

The Executive Director is a member of the inter-agency reference group advising on transport issues and solutions for this major government city building initiative.

### **Centre for Research into Energy for Sustainable Transport**

The Executive Director is a member of the Advisory Board of CREST

### **Digital Ecosystems and Business Intelligence Institute**

The Executive Director is a member of the Advisory Board of DEBII, in the Curtin Business School.

### **Curtin Graduate School of Business**

The Executive Director is a member of the Advisory Board.

## **Other Activities**

### **Public Works Committee, Parliament of South Australia**

Background notes and contacts prepared for a Committee Visit to Perth from 5 to 7 November 2008 to discuss Transit Oriented Development and Rail Electrification. The Chair and Executive Director met the Committee on 5 November.

### **Environment, Resources and Development Committee, Parliament of South Australia**

The Executive Director, together with parliamentarians, academics and community representatives, met the committee to discuss urban planning and transit oriented development on 19 November.

## Conference Organising Committees

- Conference on Railway Engineering, Perth, September 2008
- Australian Transport Research Forum, Gold Coast, October 2008
- MainStreet "Rediscovering the Heart", Fremantle, March 2009
- State of Australian Cities Conference, Perth, November 2009

## Conference - *The Future of Roads to Remote Communities*

Arising from PhD student John Smoker's field work and the need to advance more effective and stable long term governance arrangements for planning, funding and delivering roads to remote communities in Northern Australia, PATREC and CUSP convened a conference in Kununurra on 25 November. Representatives from Queensland, Northern Territory and Western Australia, including state and territory road authorities, local government, indigenous communities/organizations and the WA Department of Indigenous Affairs attended. The Conference resolved to develop a national program proposal for funding roads in and to indigenous communities and the development of job ready skills by indigenous people. This will be pursued in 2009.

## Specialised Road Research Services

PATREC has agreed to join with ARRB in the Provision of Specialised Road Research Services to Main Roads Western Australia. It is expected that ARRB's capacity to undertake operational and tactical research projects combined with PATREC's capacity in specialist strategic research will enable PATREC and ARRB to positively influence the transport research agenda in Western Australia. Any commitment by PATREC will be negotiated on a specific task basis.

## Australian Transport Research Forum (ATRF)

PATREC provides a complete register of all papers presented at ATRF Conferences and notices of forward conferences on its website.

## Presentations

The Executive Director made the following presentations during 2008:

Date	Forum/Title	Sponsor
11 February 08	MC Public Lecture- Dr Enrique Penalosa - "Placemaking for people - Bogota gives the lead"	DPI/PTA/MRWA
6 March 08	MC Symposium - Centre for the Built Environment and Health	PATREC & CBE&H
12 March 08	Convenor and Chair - "Freight Rail Economics"	PATREC Symposium
14 March 08	Panel Chair - Global iron and Steel Forecast Conference - "Rail Infrastructure Access"	AJM (Multiple)
18 March 08	Address REAA WA AGM	REAAA WA
8 & 9 April 08	Chair - WA Ports & Export Infrastructure	Lloyd's List DCN

	Summit 2008	
1 & 2 May 08	Presentation - "Introduction to Public Policy - Implementation Case Studies"	JCIPP-PATREC for DPI
13 & 14 May 08	Presentation - "Introduction to Public Policy - Implementation Case Studies"	JCIPP-PATREC for DPI
19 & 20 May 08	Presentation - "Designing Western Australia's Future in Freight Logistics"	Tonkin Corporation
18 June 08	Panel Chair - "Meeting skills gaps in Australia's transport industries"	BITRE Colloquium, Canberra
24 June 08	Convenor - "TOD Toolbox for Planners"	PATREC Short Course
26 June 08	Chair, "TOD - What have we learnt about implementation?"	PATREC Symposium
1 July 08	Presentation - "Introduction to Public Policy - Implementation Case Studies"	JCIPP-PATREC for DOIR
5 August 08	Panelist - "No Perfect Pepsi"	RACWA Ai Summit
22 September 08	Presentation - "WA Transport Network: Strengths and Weaknesses & Opportunities and Threats"	WA Transport Infrastructure Summit 2008
6 & 7 October 08	Participant - "Transport Freight and Metro" Work Group	ADC Infrastructure 21 Summit, Brisbane
21 October 08	Address - "National Transport Policy Framework"	CILT WA AGM
13 November 08	Presentation - "Introduction to Public Policy - Implementation Case Studies"	JCIPP-PATREC for DPI
18 November 08	Presentation - "WA Ports: Meeting the Challenge"	Facing North Seminar, Murdoch University
20 & 21 November 08	Presentation - "Introduction to Public Policy - Implementation Case Studies"	JCIPP-PATREC for DPI



Annual Review 2008

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