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Cover image courtesy of JNF (Jewish National Fund) - Biofiltration Project, Kfar-Sava, Israel.
Recognition of staff achievements

Mr Chris Powell has won the 2009 Vice-Chancellor’s Awards for Exceptional Performance by Professional Staff. Chris also received the Dean’s Award for Exceptional Performance by a HEW Staff Member. Well deserved!

The ARC (Australian Research Council) Future Fellowships scheme provides opportunities for outstanding mid-career researchers from a variety of disciplines to conduct high quality, innovative research in Australia. Dr Ranjith has been awarded an ARC Future Fellowship to study the greenhouse gas storage assessments of various geological formations. Well done!

Dr David McCarthy was awarded the prestigious Churchill Fellowship in June. The Winston Churchill Memorial Trust was created to honour the memory of Sir Winston Churchill. David’s project is on ‘Improving treatment technologies for mitigating health risks of utilising stormwater for reuse and recreational purposes’. The fellowship award will allow him to travel to USA, Canada and Japan to visit seven different research facilities.

Dr Belinda Hatt was presented with the Kenneth Hunt Medal for Excellence in Research at the Faculty of Engineering Awards Presentation Evening in May. This Award is made annually to the graduating PhD student whose thesis is judged to be the best submitted in the calendar year preceding the award. The Medal is named after the late Professor Ken Hunt, Foundation Dean of the Faculty of Engineering.

Belinda also received the Mollie Holman Doctoral Medal for the best thesis and VC’s Commendation Certificates for excellence in Masters and PhD theses.

The 2009 Alumni of the Year went to Dr Adrian Williams. He is an outstanding engineer who has contributed extensively to the field of geomechanics over many years and has achieved a worldwide reputation in his specialised field. Adrian was the Chief of CSIRO, Division of Petroleum Resources, then the Chief of CSIRO, Division of Energy Technology before re-establishing and heading Geodynamics, a leading company dealing in geothermal energy.

The Early Career Alumni of the Year went to Mr Andrew Somers. He was the top student in the department during his Civil Engineering degree and also completed a Bachelor of Commerce, Master of Transport and Master of Traffic degrees. He has been recognised within his employment as “high flyer” with rapid
promotion to the position of Acting Manager, Network Operations program within VicRoads.

Andrew has been awarded the VicRoads Divisional Award for ‘Getting things done’ and the Kerry Burke Memorial Award which gave him the opportunity to travel to a number of key institutions around the world to obtain first hand information on developments in congestion management and intelligent transport systems.

This year’s Technical Staff Member Award went to Mr Kevin Nievaart and Postgraduate OHS Award went to Mr Matthew Sentry.

Dr Bill Wong was promoted to Associate Professor. Bill has made significant contribution to the department especially in high quality teaching. Congratulations!

**Research achievements**

We have run special interaction meetings with researchers in other departments:

- Mechanical and Aerospace
- Materials
- Chemical
- Electrical and computer science
- Biological engineering, and
- Architecture.

The department was successful in leading a VSA (Victoria Science Agenda) application (a multi-disciplinary research program) which attracts $8.7 million cash from the government and industry. Congratulations to Professor Ana Deletic and her team!

The department was successful in winning 3 ARC Discovery Grants and 3 ARC Linkage Grants this year.

Associate Professor Kodikara played a leading role in submitting a very large ARC Linkage Grant in November. Again this is a multi-disciplinary research program which attracts about $5 million dollars cash and $12m in-kind from Industry, while asking ARC for $7m cash.

**Engagement with Industry and Community**

The Civil Engineering Appreciation Dinner was held on 24 November. Mr Colin Jordan (Managing Director and CEO of RACV, our Industry Advisory Committee Chairman) addressed the challenges we are facing and the importance of collaboration between university and industry.

Professor Edwina Cornish, Senior Deputy Vice-Chancellor and DVC (Research) introduced Ms. Madeleine McManus, President of the Engineers Australia Victoria, who gave a wonderful speech about Women in Engineering and promoting engineering to the Community.

The department is running a high profile water research project in Israel sponsored by the Jewish National Fund. A ceremony was held in Kfar-Sava, Israel on 19 November 2009 to launch Stage One of the Biofiltration Project. The biofilter will harvest storm water and treat polluted groundwater. This wonderful new undertaking began with Mr Yaron Zinger, a young Israeli researcher studying at Civil Engineering under Professor Ana Deletic.
Thanks to a grant arranged by JNF Australia, Mr Zinger was able to implement this project in Israel. The delegation from Australia included The Honourable Phillip Costa, Minister for Water and Regional Development of NSW and leader of the WATEC Mission to Israel, Professor Ana Deletic and Mr Chris Powell, Director of Resources.

**Departmental Retreat**

The Department held a retreat on 3rd February 2009 to review its research, teaching and international strategies. It was agreed that the Department should actively pursue innovative and significant multi-disciplinary research to address the challenges for engineering in the 21st century.

**Bob Keller’s Retirement Function**

Colleagues and friends gathered in June at the Monash Club to celebrate the retirement of Associate Professor Bob Keller. A few former senior staff of the department attended the function: Professor Peter Darvall (former Vice Chancellor of Monash University), Professor Paul Grundy (former Head of Department), Dr Ian Donald, Professor Ian Johnston, Professor Russell Mein and Mr Norm Sneath. Special guests included Gracie (Professor Noel Murray’s wife) and Daphne (Professor Eric Laurenson’s wife).

Professor Bill Young (former Head of Department) made a comprehensive presentation on Bob’s career at Monash since 1979. Professor Peter Darvall presented the plaque ‘The RJ Keller Hydraulics Facility’ in recognition of Bob’s significant contribution to the hydraulic laboratory.
Annual Ogden Transport Lecture

The Ogden Transport Lecture was initiated in 2001 by the Institute of Transport Studies (ITS) to recognise Professor Ken Ogden’s role in founding the transport program at Monash in 1969. Professor Dan Sperling delivered the 2009 Ogden Transport Lecture at the State Library theatrette on August 20 2009. Speaking on the topic of ‘Towards 2 Billion Cars: Transforming cars, fuel and mobility’, Professor Sperling described the challenges and opportunities associated with the car based mobility system which dominates urban areas in the developed world.

He described the role which electric vehicles will play in the future and the importance of establishing a low carbon fuel standard to ensure that when stocks of petroleum decline they are not substituted by high carbon equivalents (e.g. oil from tar sands).

He also outlined the role that information and communications technologies will have in underpinning the transformation of urban mobility systems to include access to more dynamic information on service availability and the use of the technology to support on-demand services.

40th Anniversary Celebration

The 40th Anniversary of the Transport Research and Education Program at Monash University was celebrated in style at a dinner held in the Monash Staff Club in August. The dinner celebrated the achievements of the program which traces its beginning to Ken Ogden’s appointment in 1969 as Monash’s first Lecturer in Transport. The anniversary dinner was strongly supported by the profession with 150 people attending. Professor Ed Byrne, who had only just returned to Monash to take up the position of Vice Chancellor, welcomed the guests, reflected on the achievements of the transport program at Monash and provided insight into his vision for the University.

Jim Betts, the Secretary of the Department of Transport, gave the dinner address which focussed on ten propositions and their relevance to contemporary issues in transport. The contributions of the staff, students and industry were acknowledged over the course of the evening.

The event provided an excellent opportunity for current and former staff and students, friends and colleagues to reconnect and reflect on the positive impact which the program has had on the transport profession in Australia. Strong links with industry have been a feature of the transport research and education activities at Monash over many years.

The 2009 Ogden Transport Lecture and the 40th Anniversary Celebration were supported by sponsorship provided by: the State Government of Victoria; RACV; Booz and Company; AFRB Group; Bus Association of Victoria; Connect East; Monash University Accident Research Centre; Sinclair Knight Merz; Traffix Group; Ventura Bus Lines and Vic Roads. Thanks are extended to those organisations for helping to make the celebration such a successful and memorable event.
2 Our people

2.1 Management Committee

In 2009, the Management Committee of the Department consisted of:

- Professor Xiao-Ling Zhao  
  (Head of Department)
- Professor Ana Deletic  
  (Director of Research)
- Associate Professor Jay Sanjayan  
  (Director of Teaching)
- Dr Bill Wong  
  (Director of International Affairs)
- Mr Christopher Powell  
  (Director of Resources).

Meetings of the Management Committee were held once a month.

2.2 Industry Advisory Committee

Meetings of the Department’s Industry Advisory Committee were held on 30th March 2009 and 24th November 2009 at the Clayton campus. The membership of the Industrial Advisory Committee was as follows:

**Industry members:**

- Mr Colin Jordan (Chair)  
  Managing Director and CEO, RACV Ltd, Melbourne
- Mrs Ann Kollmorgen  
  Consulting Engineer, Sinclair Knight Merz, Malvern
- Dr Bronwyn Ridgway  
  Environmental Engineering Consultant, Cromer
- Mr Murray Cullinan  
  General Manager, Business Dev., Public Transport Section, Department of Infrastructure, Victorian Government, Melbourne, Victoria
- Dr Brian Wrench  
  Principal, Golder Associates Pty Ltd, Hawthorn, Victoria
- Mr John Sturdy  
  General Manager, ETM Search & Selection, South Melbourne, Victoria
- Dr Rory Nathan  
  Principal, Sinclair Knight Merz, Armadale, Victoria
- Mr Ian Pitcher  
  Director, Alliances, AECOM, Melbourne, Victoria
- Dr Swee L. Mak  
  Deputy Chief – Industry, CSIRO Manufacturing and Materials Technology, Highett, Victoria
- Mr Chris Chesterfield  
  General Manager, Waterways, Melbourne Water
- Mr Claude Cullino  
  Director, Assets & Engineering, Manningham City Council, Doncaster, Victoria

**Departmental members:**

- Professor Xiao-Ling Zhao  
  Head of Department
- Professor Ana Deletic  
  Director of Research
- Associate Professor Jay Sanjayan  
  Director of Teaching
- Dr Bill Wong  
  Director of International Affairs
- Mr Christopher Powell  
  Director of Support Services

2.3 Heads of section

The Heads of Section were as follows:

- Professor Bill Young  
  Head, Transport Group
- Associate Professor Riadh Al-Mahaidi  
  Head, Structures Group
- Associate Professor Jayantha Kodikara  
  Head, Geomechanics Group
- Associate Professor Tim Fletcher  
  Head, Water Group

Meetings of the Heads of Section were held every three months in 2009, twice combined with the Management Committee meetings.

2.4 Occupational Health and Safety Committee

The Civil OHS Committee was created in 2008. In 2009, the membership of the committee was as follows:

- Professor Xiao-Ling Zhao  
  (Chairperson)
- Mr Mike Leach  
  (Deputy Chairperson)
- Mr Chris Powell
- Dr Mike Bambach
- Dr P.G. Ranjith
- Mr Frank Winston
- Mr Don McCarthy
- Mr Hui Lu
- Mr William Darlington

Meetings of the Civil OHS Committee were held every two months in 2009.

Clockwise, from left: Professor Xiao-Ling Zhao, Mr Colin Jordan, Mr Graham James, Dr Ranjith, Dr Bob Keller, Mr Chris Powell, Mr Ian Pitcher, Professor Russell Mein, Professor Edwina Cornish and Ms Madeleine McManus (at the Civil Appreciation Dinner in November 2009)
2.5 Research groups

The department operated through the following four groups:

2.5.1 The Geomechanics Group
In 2009, the group was led by Associate Professor Jayantha Kodikara and included:
- Associate Professor Malek Bouazza
- Dr Asadul Haqu
- Dr P.G. Ranjit
- Dr Will Gates
- Dr Aruna Amarasiri
- Dr Nathan Rajeev
- Dr Rao Martand Singh

Research strengths: Environmental geotechnics, unsaturated soils, soil and rock stabilisation

2.5.2 The Structures Group
In 2009, the group was led by Associate Professor Riadh Al-Mahaidi and included:
- Professor Xiao-Ling Zhao
- Assoc. Professor Jay Sanjayan
- Dr Bill Wong
- Dr Michael Bambach
- Dr Frank Collins
- Dr Lizi Sironic
- Dr Con Adam
- Dr Wen Hui Duan
- Dr Hongbo Liu
- Dr Yu Bai
- Emeritus Professor Paul Grundy (Honorary staff member).

Research strengths: Advanced Thin-Walled Structures; FRP Composites; Non-Portland Cement based sustainable concrete alternatives; Impact and blast; Lifetime Integrity of Structures; Timber structures.

2.5.3 The Water Group
In 2009, the group was led by Associate Professor Tim Fletcher and included:
- Professor Ana Deletic
- Dr Edoardo Daly
- Dr Gavin Mudd
- Dr Guangzhi Sun
- Dr Belinda Hatt
- Dr David McCarthy
- Associate Professor Gary Codner (Faculty of Engineering Associate Dean, Teaching)
- Associate Professor Robert Keller (Adjunct Research Associate)
- Mr Frank Winston
- Ms Katia Bratieres
- Mr Peter Poelsma
- Mr Justin Lewis

Research strengths: Modelling and monitoring of stormwater quality and treatment; water filtration and treatment technologies (including biofiltration); water sensitive urban design and integrated urban water management; stormwater harvesting; ecohydrology; groundwater modelling; hydrogeochemistry (water and gas flux modelling); life cycle assessment of water (mining, urban etc.); physical modelling of hydraulic structures; stochastic soil-moisture dynamics and water balance, soil-atmosphere interaction; constructed wetland; wastewater treatment and pollutant degradations.
2.5.4 The Transport Group
(Institute of Transport Studies)

In 2009, the group was led by Professor Bill Young and included:
• Associate Professor Geoff Rose
• Professor Graham Currie
• Dr Majid Sarvi
• Dr Yibing Wang
• Mr John Clements
• Mrs Astrid De Alwis
• Ms Pauline Forbes
• Ms Alexa Delbosc
• Ms Brenda O’Keefe (Administration Manager).

Research strengths: Transport and traffic planning and management; travel demand; transport operations; public transport planning and management; intelligent transportation systems; pedestrian modelling and network optimisation.

2.6 Staff list

Professors
• Xiao-Ling Zhao BE ME Shanghai Jiao-Tong PhD Syd EMBA NSW&Syd FASCE FIEAust CPEng MiIFC [Head of Department]
• William Young BE(Hons) NSW MSc PhD GradDipMgt Deakin MBA Deakin FIEAust FITE FCIT MPAA MAITPM CPEng
• Graham Currie BSc(Hons) Huddersfield MSc Cranfield MCIT
• Ana Deletic BSc(Hons) Belgrade PhD Aberdeen GradCertHighEd MIWA

Associate Professors
• Riadh Al-Mahaidi BSc(Civil Eng)(Hons) Baghdad MSc Cornell PhD Cornell FIEAust MASCE CPEng
• Abdelmalek Bouazza CivIng Algiers PhD Glasgow FIEAust
• Gary Peter Codner DipCE Caulfield I.T. BE(Hons) MBA PhD FIEAust
• Tim Fletcher BForSc(Hons) Melb PhD Melb MRBMS
• Jayantha Kodikara BSc(Hons) Peradeniya PhD FIEAust, CPEng
• Geoffrey Rose BE(Hons) Qld I.T. MSc PhD Northwestern MIEAust MITE MAITPM
• Jay G. Sanjayan BScEng(Hons) Peradeniya PhD MIEAust
• Bill M.B. Wong BSc(Eng) Lond. PhD NSW CEng MIEAust CPEng

Senior Lecturers
• John Clements BCom(Hons) DipEd Melb MEC MAdmin FCIT
• Frank Collins BE Syd MEngSc Syd PhD FIEAust
• Asadul Haque BScEng KBIT MEng AIT PhD Wollongong. MIEAust
• Ranjith Pathegama Gamage BSc(Eng) (Hons) Moratuwa PhD Wollongong. MASCE MSRMII MAGS MSSE
• Majid Sarvi B CivEng(Hons) Tehran MEng (Hons) IUST PhD Tokyo MJSCE MJSTETSC MJCITE
• Yibing Wang BS Sichuan MS Chongqing PhD Tsinghua

Lecturers
• Yu Bai BEng(Struct) Tsinghua MEng(Struct) Tsinghua PhD EPFL
• Michael Bambach BE Syd PhD Syd
• Edoardo Daly MSc Polyt. Turin PhD Polyt. Turin
• Astrid de Alwis BA Melb GDip.T&DMgt RMIT MLogMgt MCIT
• Wan Hui Duan BEng Tianjin MEng Tianjin PhD NUS
• Belinda Hatt BAppSci(Hons) RMIT PhD
• Gavin Mudd BEng(Chem) (Hons) RMIT PhD VUT MIAH MSSEE
• Guangzhi (John) Sun BEng(Chem) Tianjin M. Eng(Chem) Tianjin PhD Birmingham GradCertHighEd (Teaching) Queen’s

Senior Tutor
• Elizabeth Sironic BE DIC MSc PhD

Research staff
• Constantine Adam BEngSc MEngSc PhD AISWS
• Pauline Forbes
• Alexa Delbosc BA Lewis & Clark MA Harvard
• Will Gates BSc MSU MSc NMSU PhD Illinois
• David McCarthy BSc BE(Hons) PhD
• Alessandra Mendes BEng(Mat) UFS, Car Brazil
• Peter Poelsma BSc (Environmental) RMIT
• Aruna Amarasinghe BEng (Civil)(Hons) MSc Texas Tech PhD Texas Tech
• Rao Martand Singh BEng(Civil)(Hons) Vyas Jodhpur MTech(Geotech) IIT Delhi PhD Cardiff
• Nathan Rajeev BSc Peradeniya MSc Pavia PhD Pavia
• Hongbo Liu BEng Harbin MSc Nanyang PhD

Administrative staff
• Jenny Manson – Research & Postgraduate Manager
• Brenda O’Keefe – Administration Manager, ITS
• Helen Parker – Finance Officer, Support Services

Clockwise from left: Craig McPherson, George Panas, Mark Beech, Geoff Rose, Sevim Akcelik, Rahmi Akcelik, Raian Isaac and Nithi Nithianandan (at Civil Appreciation Dinner)

Clockwise from left: Yibing Wang, Megan Ridgway, Serena Kennedy, Graham Currie, Majid Sarvi and Astrid de Alwis (at Civil Appreciation Dinner)
Chris Powell – Director, Support Services
Irene Sgouras – Undergraduate Studies Administration Manager
Noi Souvandy – Finance Officer, Support Services
Dominique Thomson – Personal Assistant to the Head of Department

Technical staff
Patrick Arias – Technical Officer
Glenn Davis – Technical Officer
Jeffrey Doddrell – Technical Assistant
Peter Dunbar – Technical Officer
Long Kim Goh – Laboratory Manager
Michael Leach – Technical Officer
Don McCarthy BAppSc(Phot) RMIT GradDip(Media) Deakin MIPT – Senior Communications Officer
Kevin Nievaart – Technical Officer
Gary Preston – Senior Technical Officer
Binu Stanley – Senior Technical Officer
Alan Taylor – Technical Officer (Stores)
Mark Taylor – Senior Technical Officer

Godwin Vaz – IT Officer
Richard Williamson – Senior Technical Officer
Frank Winston BE(Hons) MEngSc – Senior Technical Officer (Hydraulics Lab)

Honorary members of the Department
Emeritus Professor
Paul Grundy BCE(Hons) MEngSc Melb PhD Cantab. FIEAust MISOPE CPEng

Adjunct Research Associates
Rahmi Akcelik MSc Istanbul T.U. PhD Leeds
A.S. Balasubramaniam BSc (Eng), PhD
Sushil Bhandari BE(Mining) Jodhpur MSc(Mining) Banaras PhD NSW
Sing Ki (Xavier) Choi BE(Hons) PhD GradDip Computing
Hugh Duncan BE(Hons), MEngSc, MIEAust, CEng
Christopher Haberfield BSc Syd BE(Civil) Syd PhD FIAust MAGS MISRM MISSMGE
Robert J. Keller BE(Hons) PhD Canterbury NZ MASCE MIEAust MIPENZ
Anthony R. Ladson BE(Hons) Melb MSc Minn. PhD Melb GradCertHighEd
Russell Mein BE(Agr) Melb MEngSc Melb PhD Minn. FIEAust
Henry Robert Milner BE MEngSc Qld PhD London FIEAust CPEng NPER AWS
Valerie Grace Mitchell BE (Hons) Canterbury NZ PhD
Rory Nathan BE(Agr) Melb MSc DIC London PhD

Anthony J. Richardson BE(Hons) MEngSc UNSW PhD FIEAust MITE
Rita Seethaler MEC & PolSc Berne PhD
Julian Peter Seidel BE(Hons) PhD MIEAust CEng
Geoffrey Robert Taplin BE(Hons) Tas MEngSc PhD CEng NPR MICE MStructE MIEAust

John Tilleard BE Civil(Hons) Melb MSc Colorado PhD Melb CPEng MIEAust MASCE

From left to right: Long Goh, Noi Souvandy and Godwin Vaz at Bob Keller’s retirement function
From left to right: Irene Sgouras, Chris Powell and Jenny Manson at Bob Keller’s retirement function
From left to right: Chris Powell – Director, Support Services, Irene Sgouras – Undergraduate Studies Administration Manager and Noi Souvandy – Finance Officer, Support Services
From left to right: Peter Erwin Weinmann DipIng ETH Zurich MEngSc MIEAust CPEng, Tony H.F. Wong BE PhD CPEng MIAust MASCE
From left to right: Russell Mein, Norm Sneath and Peter Darvall at Bob Keller’s retirement function
From left to right: Russell Mein, Norm Sneath and Peter Darvall at Bob Keller’s retirement function
From left to right: Norm Sneath, Ian Donald, Peter Darvall, Gracie Murray, Margaret Schoonbeek, Paul Grundy at Bob Keller’s retirement function
Clockwise from left: Rick Wootton, Astrid de Alwis, John Molloy, Erwin Weinnmann, Wendy Mein, Russell Mein, Daphne Laurenson at Bob Keller’s retirement function
Clockwise from left: Rick Wootton, Astrid de Alwis, John Molloy, Erwin Weinnmann, Wendy Mein, Russell Mein, Daphne Laurenson at Bob Keller’s retirement function
Clockwise, from left: Rick Wootton, Astrid de Alwis, John Molloy, Erwin Weinnmann, Wendy Mein, Russell Mein, Daphne Laurenson at Bob Keller’s retirement function
Clockwise, from left: Rick Wootton, Astrid de Alwis, John Molloy, Erwin Weinnmann, Wendy Mein, Russell Mein, Daphne Laurenson at Bob Keller’s retirement function
From left to right: Bob Keller, Judy Keller and Ian Donald at Bob’s retirement function
Clockwise from left: Norm Sneath, Ian Donald, Peter Darvall, Gracie Murray, Margaret Schoonbeek, Paul Grundy at Bob Keller’s retirement function
2.7 Staff changes in 2009

New staff members
- Dr Yu Bai
- Dr Nathan Rajeev
- Dr Rao Martand Singh
- Dr Hongbo Liu
- Dr David McCarthy

Promotions
- Dr Bill Wong (from Senior Lecturer to Associate Professor)

Resignations
- Dr Chaminda Gallage
- Associate Professor Riadh Al-Mahaidi
- Associate Professor Jay Sanjayan
- Dr Michael Bambach
- Dr Zhigang Xiao
- Dr Grace Mitchell
- Mr Justin Lewis

Retirement
Nil
Jordan, Amman (Jordan), has been visiting the department and collaborating with Associate Prof Malek Bouazza.

**Dr Russell Thompson** of the Department of Civil and Environmental Engineering at The University of Melbourne, visited the department in October working with staff members of the Institute of Transport Studies.

**Dr Tao Yu** of the Department of Civil and Structural Engineering at the Hong Kong Polytechnic University, (China) was a visitor in the department from April – July. His visit was hosted by Professor Xiao-Ling Zhao.

**Professor Chien Ming Wang**, Director, Engineering Science Program, Faculty of Engineering, National University of Singapore, visited the department in June. His visit was hosted by Dr Wenhui Duan.

**Professor Jorge G. Zornberg**, Fluor Centennial Associate Professor, Civil Engineering Department, University of Texas-Austin (USA) visited the department in July-August to participate in a short course on Lining and Cover Systems for Waste.

**Dr Carol Boyle** of University of Auckland visited Dr Gavin Mudd in April for collaboration on research into sustainable infrastructure.

### Occupational Trainees

**Ms Emilie Plessis**, from the Energy and Environmental Engineering Department, National Institute of Applied Sciences (INSA), Lyon (France), arrived in the department in April for a 5-month visit. She was enrolled in a MEng degree and her visit was hosted by Associate Professor Tim Fletcher.

**Mr Arnaud Bourachot**, Masters student at Ecole Normale Superieure de Cachan (France), visited the Department during the period 3rd May to 7th August 2009. He was supervised by Dr Ranjith.

**Mr Christian Helbach** from RWTH Aachen University, Institute of Environmental Engineering, visited the Department between January and May. His visit was hosted by Dr Gavin Mudd.

**Mr Yang Peng** of the Department of Structural Engineering, Tongji University (China) arrived in the Department in March 2009 for a 12-month visit. His visit was hosted by Professor Xiao-Ling Zhao who supervised him on a research project entitled ‘Fatigue behaviour of cast steel connections’.
3. Education

3.1 Course offerings

The Department offers undergraduate single degrees in Civil Engineering, Environmental Engineering and Infrastructure Engineering and Management, namely the Bachelor of Engineering, the Bachelor of Environmental Engineering and the Bachelor of Technology (Infrastructure).

The Civil program is combined with Arts, Law, Commerce and Science to offer undergraduate double degrees, namely the Bachelor of Engineering/Bachelor of Arts, the Bachelor of Engineering/Bachelor of Science, the Bachelor of Engineering/Bachelor of Laws, the Bachelor of Engineering/Bachelor of Commerce, the Bachelor of Engineering/Bachelor of Biomedical Engineering.

As part of the undergraduate programs in Civil and Environmental Engineering, ITS (Monash) had responsibility for transport/traffic related subjects. With core units offered in both Level Two (CIV2282 Transport and Traffic) and Level Three (CIV3283 Road Engineering) of the undergraduate civil engineering degree, two electives in Final Year (CIV4283 Transport Planning and CIV4284 Transport Systems) and the option to do a final year transport project, the program has proven itself to not only motivate, but also prepare students to pursue careers in the transport and traffic industry.

The Department also offers two postgraduate coursework degrees via distance education (Graduate Diploma, Postgraduate Diploma and Masters): one in Infrastructure Engineering and Management, the other in Transport and Traffic.

3.2 Undergraduate scholarships and prizes

Scholarships (Faculty)

<table>
<thead>
<tr>
<th>Traffic Group Scholarships:</th>
<th>Shanika Ekanayake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2 (partly funded by Mirabito family)</td>
<td>David Beaton</td>
</tr>
<tr>
<td>Level 3</td>
<td>Matthew Greenough</td>
</tr>
</tbody>
</table>

Prizes (Faculty)

| GHD Civil Engineering Award Prize | Madeleine Tillig |
| Civil Contractors Federation Prize – the Ian Jacka Award | John Fitzgerald |
| Golder Associates Prize | Avi Shonberg |

Prizes (Department)

<table>
<thead>
<tr>
<th>Level 1 Prizes</th>
<th>Level 2 Prizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest achieving single degree student commencing Civil Engineering in 2008 Average 87%</td>
<td>Railand Prize for Water Engineering (Best overall performance in 2nd Year Water Supply – CIV2263)</td>
</tr>
<tr>
<td>Professor Zhao and Prize Winner, Jarrod Lawson</td>
<td>Associate Professor Fletcher and Prize Winners, Hong Huel Yak and Chia Chung-Kiat</td>
</tr>
<tr>
<td>Highest achieving double degree student commencing Civil Engineering in 2008 Average 90%</td>
<td>SRIA Prize for Concrete Structures (for outstanding achievement in reinforced concrete design)</td>
</tr>
<tr>
<td>Professor Zhao and Prize Winner, Laura Cantwell</td>
<td>Associate Professor Sanjayan and Prize Winner, Harsha Fowdar</td>
</tr>
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</table>
## Level 3 Prizes

<table>
<thead>
<tr>
<th>Prize</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australian Steel Institute Prize</strong></td>
<td>(Greatest proficiency in the field of steel structures CIV3221)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>Douglas Partners Prize for Geomechanics</strong></td>
<td>(Greatest proficiency at Level 3 in geomechanics units, CIV3247 &amp; CIV3248)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>Railand Prize of Urban Water Systems</strong></td>
<td>(Best overall performance in CIV3264, Urban Water &amp; Wastewater systems)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>GHD Highway Design Prize</strong></td>
<td>(to the group who submitted the best highway design project in CIV3283)</td>
<td><a href="#">Image</a></td>
</tr>
</tbody>
</table>

## Level 4 Prizes

<table>
<thead>
<tr>
<th>Prize</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation Industry Prize for Soil Engineering</strong></td>
<td>(Best Foundation Design in Soil Engineering – CIV4249)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>GHD Prize in Water Engineering</strong></td>
<td>(Greatest proficiency in the water engineering subjects at Level 4)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>Richardson Prize in Transport</strong></td>
<td>(Greatest proficiency in one transport elective and transport final year project)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>Thiess Prize for Civil Engineering Design</strong></td>
<td>(Group who has submitted the Best Design in Civil Engineering Practice 4)</td>
<td><a href="#">Image</a></td>
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</tbody>
</table>

## Foundation QA Prize

(for the Best Final Year Project in Geomechanics)

<table>
<thead>
<tr>
<th>Prize</th>
<th>Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation QA Prize</strong></td>
<td>(for the Best Final Year Project in Geomechanics)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>Traffix Group Prize</strong></td>
<td>(Greatest proficiency in transport engineering)</td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td><strong>Civil Engineering Vacation Work Prize</strong></td>
<td></td>
<td><a href="#">Image</a></td>
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</tbody>
</table>

Left to right: Associate Professor Kodikara and Prize Winner, Andrew Kuzmanovic

Left to right: Nathan Woolcock of Traffix with Prize Winners Nick Hurley and Leigh Furness

Left to right: Professor Zhao with Prize Winner, David Tricarico
3.3 Graduating Class of 2009 (Undergraduate students)

Bachelor of Engineering (Civil)
Chun Ho Au
Jeffrey Peter Bates
Michael Kollen Bryce
Luning Li
Kok Yung Lester Lo
Gomata Makhmalbaf
Charles Reiner
Tsun Kun Shum
David Michael Tricarico
Ka Kin Lun
Angel Chan
Xue Xu Li
Kee Yew Sia
Benjamin Tran
Ka Ming Chan
Fung Shing Lam
Ho Yin Li
Ka Ming Chan
Fung Shing Lam
Ho Ying Li

Bachelor of Engineering (Civil) with Honours
Jazper Redmon Blizzard
Vincenzo Bonacci
Daniel Calache
Rachel Tiu Callery
Nicholas Lee Chung
Tiago Alexandre Coelho
Michel Youssef Daher
Pooja Harish Desai
Andrew Geoffrey Dodson
Nelson Kwame Dzadey
John Michael Fitzgerald
Michael John-Paul Guthridge
Nicole Anne Guy
Tony Harika
Nicholas James Hurley
Anthony John Kaissidis
Andrew Michael Kuzmanovic
Ritchie Dong Leong Lau
Terry William Leach
James Alexander Lewis
Zhi Zhong Li
Josip Lovrencic
Patrick James MacKenzie
Amira Mourad
Rahayu Oetomo
Nathan David Peiper
Sangye William Rigin
Sean Rodney Robertson
Joseph Mark Scata
Aleya Shalar
Adam Temel
Kimon Tsitsopoulos
Joel Velasco
Bradley Ronald Warters
Anthony Wood
Bo Yuan
Shaun William Kent
Stephen Paul O’Hern
Walid Ahmad Ahmadzai
Denham Anthony Alphonson
Muditha Chamara Ariyarathna
Nathan Olaf James Bachmann
Edwin Engua
Fang Jiarong
Gyu-Sang Hwang
Zi Jeat Lim
Melanie Elizabeth Scorri
James Luke Westcott
Eko Saputro Wijaya
Peter Marcus Bach
Gurdeep Singh Jeswan Singh
Han Soon Ling
Jing Yi Luo
Shu-Cheng Albert Pan

Bachelor of Arts and Bachelor of Engineering (Hons) in the field of Civil Engineering
Emer Louise Donnelly
Joanne Le
Ross Edward Sanual McEwan
Huylin Ream

Bachelor of Science and Bachelor of Engineering (Hons) in the field of Civil Engineering
Camilla Jane Bachet
Kirsty Patricia Carroll
Adam John Mcgregor Dawson
Leigh Alan Furness
Mandy Lee Gook
Zuzanna Marta Graszkiwicz
Christopher Greenland
Thomas Peter Hennessy
Carlo Ross Morello
Benjamin Michael Shannon

Bachelor of Commerce and Bachelor of Engineering (Hons) in the field of Civil Engineering
Nicholas Mariaraj Manuelpillai
Susan Maxwell Patrick
Christopher James Paxino
Madeleine Therese Tillig
Emma Judith Wardrop
Stephanie Mei-Wen Yu
Minh Thong Nguyen Huu

Bachelor of Environmental Engineering
Chui Ying Kathy Wan

Bachelor of Environmental Engineering (with Honours)
Uguyen Choden
Andrew David Churcher
Sarah Christina De Man
Thamara Dasun Gunasekera
Thomas James Harvey
Chiu Kit Aaron Hui
Khalif Ardhì Jusuf
Radha Rockwood
Tara Jane Smith
Michael Edward South
Christopher Noel Tancheff
Kevin Yip Chee Fong
Sam Worrall

Bachelor of Technology (Infrastructure – Design, Construction and Management)
Sajmir Bella
Franklin Francis Koons Pak Ming
Carmen Lai
Ben Jones Atchia
Kai Tai Lau
Timothy John Danckert
Ping Yu Kwok
Peter Wayne Good Tafdzwa Tiyago
4. Research

4.1 Research projects undertaken in 2009

Geotechnical Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone columns</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Unsaturated flow behaviour of geotextiles</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Thermo-hydro-mechanical behaviour of GCLs and porous media</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Unsaturated behaviour of GCLs</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Ground Anchors</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Moisture dynamics in GCLs</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Geothermal Energy Geostructures</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Biological applications to Geotechnical Engineering</td>
<td>Bouazza</td>
</tr>
<tr>
<td>Filtration behaviour of capping material under dynamic loading condition</td>
<td>Haque/Bouazza</td>
</tr>
<tr>
<td>Research into Geosequestration of Carbon Dioxide (CO2), including geomechanical behaviour due to the stored supercritical CO2, Formation and swelling behaviour of rock media, Migration of CO2 due to change in insitu stresses.</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Slope Stability of large deep, open cut mines</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Stability of wellbore analysis</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Underground longwall mining</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Enhanced coal bed methane recovery, ECBM</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Hydro-fracturing and other simulation methods for depleted and tight reservoirs</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Two-phase and multiphase flow in fractured rock media</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Coupled Hydro-mechanical behaviour of fractured and porous rocks</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Gas outbursts and groundwater inundation in mines</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Rock physics under high pressure conditions</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Characterization of weathered rocks</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Tunneling in soft and hard ground</td>
<td>Ranjith</td>
</tr>
<tr>
<td>Pile foundation: Laterally loaded piles</td>
<td>Haque/Ranjith</td>
</tr>
<tr>
<td>Railway Geotechnics : Filtration behaviour of subballast under cyclic loading condition.</td>
<td>Haque/Bouazza</td>
</tr>
<tr>
<td>Rock joints : Numerical modelling on infilled joints</td>
<td>Haque</td>
</tr>
<tr>
<td>Soil improvement : Triaxial and macrostructural behaviour of lime-slag treated clay</td>
<td>Haque</td>
</tr>
<tr>
<td>Strength and compressibility behaviour of Coode Island Silt</td>
<td>Haque</td>
</tr>
<tr>
<td>Optimisation of lime content for lime-slag treated clay</td>
<td>Haque</td>
</tr>
<tr>
<td>Atmosphere and soil interaction modelling</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Modelling of shrinkage cracking</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Deterioration modelling of road pavements</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Study of desiccation cracking of clay</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Particle flow and compaction analysis</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Pipe failures due to ground movement in reactive soils</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Axial response of seabed pipelines</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Modification of marginal soils with hydrophobic additives</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Incorporation of climate influence into road pavement design.</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Use of thermal imager for civil engineering applications</td>
<td>Kodikara</td>
</tr>
<tr>
<td>Stone columns</td>
<td>Bouazza</td>
</tr>
</tbody>
</table>
### Structural Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of epoxy/nanomaterials as adhesives for bonding CFRP to steel plates</td>
<td>Al-Mahaidi/Zhao</td>
</tr>
<tr>
<td>Bond characteristics of CFRP strengthened steel members under extreme temperature cycles</td>
<td>Al-Mahaidi/Zhao</td>
</tr>
<tr>
<td>The study of bond behaviour of CFRP reinforced steel plates under high-amplitude cyclic loading</td>
<td>Al-Mahaidi/Zhao</td>
</tr>
<tr>
<td>Bond characteristics between steel members and carbon fibre reinforced polymer ‘CFRP’ composites</td>
<td>Al-Mahaidi/Zhao</td>
</tr>
<tr>
<td>Performance of FRP retrofitted concrete structures under thermal loading</td>
<td>Al-Mahaidi/Wong</td>
</tr>
<tr>
<td>Fatigue performance of steel joints bonded with CFRP fabrics</td>
<td>Zhao/Al-Mahaidi</td>
</tr>
<tr>
<td>Quality control procedures for EWP s</td>
<td>Adam</td>
</tr>
<tr>
<td>Evaluation of the engineering properties of Resak laminated timber veneer</td>
<td>Adam</td>
</tr>
<tr>
<td>Evaluation of tension strength and flexural proof load level for finger jointed Supachord Beams</td>
<td>Adam</td>
</tr>
<tr>
<td>Interaction of carbon nanotubes and cement particles</td>
<td>Collins/Duan</td>
</tr>
<tr>
<td>Use of smart materials for structures in fire</td>
<td>Wong /Al-Mahaidi/Zhao</td>
</tr>
<tr>
<td>Temperature prediction and heat transfer of dual tubes</td>
<td>Wong</td>
</tr>
<tr>
<td>Behaviour of elliptical hollow sections</td>
<td>Zhao</td>
</tr>
<tr>
<td>Fatigue of welded cast steel tubular joint</td>
<td>Zhao/Duan</td>
</tr>
<tr>
<td>Fatigue performance of CFRP-repaired tubular joints</td>
<td>Zhao/Xiao</td>
</tr>
<tr>
<td>Steel bollard circular cantilever beams with and without CFRP subjected to impact</td>
<td>Bambach/Grzebieta/Zhao</td>
</tr>
<tr>
<td>Fire resistance of CFDST tubular columns filled with SCC</td>
<td>Zhao</td>
</tr>
<tr>
<td>Fatigue of subsea pipelines</td>
<td>Zhao/Xiao</td>
</tr>
<tr>
<td>Interaction of carbon nanotubes and epoxy</td>
<td>Zhao/Xiao/Duan</td>
</tr>
<tr>
<td>Fatigue performance of rolled steel-cast steel butt welded joints</td>
<td>Zhao/Xiao</td>
</tr>
<tr>
<td>Axial interaction between subsea pipeline and seabed</td>
<td>Kodikara/Xiao</td>
</tr>
<tr>
<td>Unified modelling of thermally induced material degradation</td>
<td>Bai</td>
</tr>
<tr>
<td>Time-dependent mechanical and structural response of polymer-matrix composites under elevated temperatures</td>
<td>Bai/Keller (EPFL)</td>
</tr>
</tbody>
</table>

### Transportation Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>A joint state-parameter estimation mechanism for real-time freeway traffic surveillance (2009)</td>
<td>Wang/Rose/Young</td>
</tr>
<tr>
<td>An innovative approach to automatic freeway traffic incident detection</td>
<td>Wang</td>
</tr>
<tr>
<td>A model of a transport research organisation (2009)</td>
<td>Shackleton/Young/Currie</td>
</tr>
<tr>
<td>Assessing the impacts and effectiveness of the Melbourne CBD parking levy</td>
<td>Currie/Young</td>
</tr>
<tr>
<td>Bus Association of Victoria – Bus Industry review, R&amp;D Project</td>
<td>Currie/Delbosc</td>
</tr>
<tr>
<td>Cement Industry EcoDrive pilot field trial – Cement Industry Federation and Sustainability Victoria</td>
<td>Rose/Symonds</td>
</tr>
<tr>
<td>Comparison of parking policy in various cities (2009)</td>
<td>Kiff/Young/Rose</td>
</tr>
<tr>
<td>Concrete pavement behaviour (2009)</td>
<td>Yeo/Young</td>
</tr>
<tr>
<td>Department of Transport – Smartbus patronage drivers, R&amp;D Project</td>
<td>Currie/Delbosc</td>
</tr>
<tr>
<td>Design strategies for the amelioration of anti-social behaviour on Public Transport</td>
<td>De Bono/Currie</td>
</tr>
<tr>
<td>Does car ownership contribute to social exclusion? Exploring the links between arts and cultural participation, transport and social exclusion</td>
<td>Currie/Stanley</td>
</tr>
<tr>
<td>EcoDrive as a road safety tool for Australian conditions, Australian Transport Safety Bureau</td>
<td>Rose/Symmonds</td>
</tr>
<tr>
<td>EcoDriver training</td>
<td>Rose</td>
</tr>
<tr>
<td>Projects</td>
<td>Investigators</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Exploring bus transfer behaviour in Metropolitan Melbourne</td>
<td>Currie/Loader</td>
</tr>
<tr>
<td>Exploring the drivers of Light Rail route ridership (2008-9)</td>
<td>Currie/Ahern</td>
</tr>
<tr>
<td>Exploring the transit network effect in Melbourne and Toronto</td>
<td>Currie/Shalaby/Woo</td>
</tr>
<tr>
<td>Exploring trip rates in an ageing population</td>
<td>Currie/Delbosc</td>
</tr>
<tr>
<td>Freeway travel time prediction</td>
<td>Wang/Rose</td>
</tr>
<tr>
<td>Fundamental research of vehicle-infrastructure-integration (VII)</td>
<td>Wang</td>
</tr>
<tr>
<td>Future Bus – route-bus bodywork design for specification diversity</td>
<td>Burns/Currie/De Bono</td>
</tr>
<tr>
<td>Improving methodologies to estimate the economic impacts of</td>
<td>Currie/Stanley/Malden</td>
</tr>
<tr>
<td>agglomeration economies in urban rail projects</td>
<td></td>
</tr>
<tr>
<td>Investigating transport disadvantage, social exclusion and</td>
<td>Currie</td>
</tr>
<tr>
<td>well-being in Metropolitan, Regional and</td>
<td></td>
</tr>
<tr>
<td>Rural Victoria (2008-2010)</td>
<td></td>
</tr>
<tr>
<td>Investigating travel time and variability prediction for</td>
<td>Currie/Rose/Sarvi</td>
</tr>
<tr>
<td>Road-based Public Transport</td>
<td></td>
</tr>
<tr>
<td>Investigating trip linking behaviour in public transport</td>
<td>Currie/Delbosc</td>
</tr>
<tr>
<td>Land use/transport study of Melbourne</td>
<td>Kadir/Sarvi/Young</td>
</tr>
<tr>
<td>Local ramp metering in the presence of random bottlenecks</td>
<td>Wang/Rose/Young</td>
</tr>
<tr>
<td>downstream of a metered on-ramp</td>
<td></td>
</tr>
<tr>
<td>Measuring transfer penalties from revealed preference data</td>
<td>Curvi/Hurley</td>
</tr>
<tr>
<td>Modelling lane changing behaviour of heavy vehicles</td>
<td>Sarvi/Rose</td>
</tr>
<tr>
<td>Modelling of pedestrian behaviour under panic conditions</td>
<td>Sarvi/Rose/Burd</td>
</tr>
<tr>
<td>Modelling the safety of intersections</td>
<td>Sobhani/Archer/Young/Sarvi</td>
</tr>
<tr>
<td>Motorcycles and transport strategy</td>
<td>Rose</td>
</tr>
<tr>
<td>Multi axel loading of infrastructure</td>
<td>Moffatt/Young</td>
</tr>
<tr>
<td>Operational impacts of alternative vehicles</td>
<td>Rose</td>
</tr>
<tr>
<td>Optimising transit priority at the network level</td>
<td>Sarvi/Currie</td>
</tr>
<tr>
<td>Predicting driver behaviours</td>
<td>Sarvi</td>
</tr>
<tr>
<td>Public Transport measures for road traffic congestion relief</td>
<td>Currie/Sarvi</td>
</tr>
<tr>
<td>Problems of governance for mutual recognition of bus and coach</td>
<td>De Alwis</td>
</tr>
<tr>
<td>operator accreditation in Australia</td>
<td></td>
</tr>
<tr>
<td>Rail passenger arrival behaviour and unreliable rail services</td>
<td>Currie/Rose</td>
</tr>
<tr>
<td>Real-time freeway traffic state estimation under traffic flow</td>
<td>Wang</td>
</tr>
<tr>
<td>inhomogeneity</td>
<td></td>
</tr>
<tr>
<td>Regional mobility to remote aboriginal communities – w/University of</td>
<td>Currie</td>
</tr>
<tr>
<td>South Australia for Desert Knowledge Cooperative Research Centre</td>
<td></td>
</tr>
<tr>
<td>Review of Australasian Bus Rapid Transit – University of</td>
<td>Currie</td>
</tr>
<tr>
<td>Southern Florida and the US Federal Transit Authority</td>
<td></td>
</tr>
<tr>
<td>Review of Australian US and Canadian Trends in Public Transport</td>
<td>Currie/Pucher</td>
</tr>
<tr>
<td>Road pricing and parking pricing</td>
<td>Bonsall/Young</td>
</tr>
<tr>
<td>Setting long bus headways – When less is more?</td>
<td>Currie</td>
</tr>
<tr>
<td>Social research in Transport (SORT) Clearinghouse</td>
<td>Currie/Forbes</td>
</tr>
<tr>
<td>Understanding the impacts of the ‘free before 7’ program on rail</td>
<td>Currie</td>
</tr>
<tr>
<td>overloading</td>
<td></td>
</tr>
</tbody>
</table>
## Water/Environmental Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facility for Advancing Water Biofiltration Projects:</strong></td>
<td></td>
</tr>
<tr>
<td>Project 3 – Design tools and Guidelines (major output of FAWB’s research program)</td>
<td>Hatt/Deletic/Fletcher</td>
</tr>
<tr>
<td><strong>eWater CRC Projects:</strong></td>
<td></td>
</tr>
<tr>
<td>MUSIC Version 4 (Model for Urban Stormwater Improvement Conceptualisation)</td>
<td>Deletic/Fletcher/Daly/Hatt</td>
</tr>
<tr>
<td>Climate and Catchments</td>
<td>Mudd/Daly</td>
</tr>
<tr>
<td><strong>Other Projects:</strong></td>
<td></td>
</tr>
<tr>
<td>Application of reed filters for treatment of stormwater domestic wastewater – project undertaken through French National Research Agency, in partnership with INSA Lyon, Cemagref.</td>
<td>Fletcher/Deletic</td>
</tr>
<tr>
<td>Calculating a bacterial budget for a waterways environment</td>
<td>McCarthy/Deletic</td>
</tr>
<tr>
<td>Can dispersed application of WSUD result in the restoration of urban streams? ARC Linkage</td>
<td>Fletcher/Walsh</td>
</tr>
<tr>
<td>Coping with uncertainty in stormwater models</td>
<td>Fletcher/Deletic/McCarthy</td>
</tr>
<tr>
<td>Could porous pavements be part of our urban water solutions? – ARC Linkage</td>
<td>Deletic/Fletcher</td>
</tr>
<tr>
<td>Developing an improved unified equation for prediction of stormwater treatment</td>
<td>Deletic/Fletcher</td>
</tr>
<tr>
<td>Development of a Global Engineering Education accreditation model</td>
<td>Codner</td>
</tr>
<tr>
<td>Development of a modular stormwater treatment and harvesting system (Water Harvesting Technologies)</td>
<td>Deletic/Fletcher/McCarthy</td>
</tr>
<tr>
<td>Effective monitoring and assessment of contaminants impacting the mid to lower Yarra catchments – Temporal Scale Assessment</td>
<td>McCarthy</td>
</tr>
<tr>
<td>Flow characterization in vegetated open channels</td>
<td>Daly</td>
</tr>
<tr>
<td>Groundwater quality and ASR in Melbourne</td>
<td>Mudd</td>
</tr>
<tr>
<td>Groundwater recharge modelling under long-term climate change scenarios</td>
<td>Mudd/Ladson</td>
</tr>
<tr>
<td>Maximum water savings at minimum cost by education &amp; auction (funded through SmartWater)</td>
<td>Fletcher/Ladson/Walsh</td>
</tr>
<tr>
<td>Monitoring the Banyan Reserve stormwater treatment train (Melbourne Water industry grant, $238k)</td>
<td>Hatt/Fletcher/Deletic</td>
</tr>
<tr>
<td>Monitoring the Clifton Hill biofiltration system (Melbourne Water industry grant, $92k)</td>
<td>Hatt/Fletcher/Deletic</td>
</tr>
<tr>
<td>Natural Spatial and Temporal Hydraulic Habitat Variability in Victoria; Implications for Regional Environmental Flow Planning.</td>
<td>Codner/Stewardson (Melb Uni)</td>
</tr>
<tr>
<td>New technologies for mitigating risks of stormwater reuse</td>
<td>McCarthy/Deletic/Fletcher</td>
</tr>
<tr>
<td>Piloting stormwater biofilters in Israel for aquifer recharging, Jewish National Fund ($330K)</td>
<td>Zinger/Deletic/Fletcher</td>
</tr>
<tr>
<td>Planted filters for management of stormwater and combined sewers – project funded by French National Research Agency</td>
<td>Fletcher/Deletic</td>
</tr>
<tr>
<td>Quantifying and coping with uncertainty in stormwater models; French-Australian Science and Technology (FAST) funded project, in collaboration with INSA Lyon, France</td>
<td>Fletcher/Deletic</td>
</tr>
<tr>
<td>Sustainable groundwater resource modelling</td>
<td>Mudd</td>
</tr>
<tr>
<td>Sustainable mining</td>
<td>Mudd</td>
</tr>
<tr>
<td>Water and CO₂ fluxes in biofiltration systems</td>
<td>Daly/Deletic</td>
</tr>
</tbody>
</table>
4.2 Research grants and income

Research Funding for 2009 was as follows:

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Project title</th>
<th>Amount awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARC Discovery Projects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kodikara</td>
<td>Modelling of shrinkage crack development in porous media</td>
<td>42,469</td>
</tr>
<tr>
<td>Ranjith et al</td>
<td>Hydro-mechanical interactions in coal geo-sequestration of carbon dioxide</td>
<td>108,228</td>
</tr>
<tr>
<td><strong>ARC Linkage Projects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bouazza</td>
<td>Improved landfill barrier design for changing climates</td>
<td>53,338</td>
</tr>
<tr>
<td>Kodikara, Zhao and Bouazza</td>
<td>Prediction and controlling of pipe failures in buried water and gas pipe systems</td>
<td>74,956</td>
</tr>
<tr>
<td>Currie et al</td>
<td>Investigating transport disadvantage, well being and social exclusion in Metropolitan, Regional and Rural Victoria</td>
<td>54,095</td>
</tr>
<tr>
<td>Deletic et al</td>
<td>Could porous pavements be a part of the urban water solution?</td>
<td>16,229</td>
</tr>
<tr>
<td>Collins et al</td>
<td>Securing longevity of reinforced concrete infrastructure through enhanced cathodic protection design</td>
<td>38,223</td>
</tr>
<tr>
<td>Collins et al</td>
<td>Improved management of Australian port infrastructure by development of predictive ageing simulation*</td>
<td>53,338</td>
</tr>
<tr>
<td>Walsh/Fletcher (Melb Uni submission w/Civil Eng participation)</td>
<td>Can dispersed, catchment-scale urban stormwater retention restore stream ecosystems?</td>
<td>48,682</td>
</tr>
<tr>
<td>Fletcher et al</td>
<td>Understanding the role of vegetation in nitrogen removal by biofiltration</td>
<td>28,566</td>
</tr>
<tr>
<td><strong>ARC Future Fellowship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ranjith</td>
<td>An assessment of carbon dioxide storage capacity of water bearing sedimentary basins</td>
<td>87,538</td>
</tr>
<tr>
<td><strong>ARC Research Infrastructure Equipment and Facilities Grants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bambach (Civil participation)</td>
<td>Rollover crash research infrastructure capacity building</td>
<td>35,000</td>
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<tr>
<td>Beringer/Daly et al (Flinders Univ. submission w/Civil Eng participation)</td>
<td>Airborne hyper-spectral scanning for advanced monitoring and assessment of vegetation and water properties</td>
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<td>Gates (Civil participation)</td>
<td>Versatile scanning x-ray microscopy facility at the Australian Synchrotron</td>
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<td><strong>CSIRO Flagship Collaborate Research Program</strong></td>
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<tr>
<td>Zhao and Kodikara</td>
<td>Subsea pipelines cluster structural integrity</td>
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<tr>
<td><strong>Contract Research – Commonwealth Government</strong></td>
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<tr>
<td>Currie</td>
<td>Ninti One Ltd – Desert transport</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Contract Research – State Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al-Mahaidi</td>
<td>VicRoads – Westgate Bridge</td>
<td>106,750</td>
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<tr>
<td>Currie</td>
<td>Dept of Transport</td>
<td>40,000</td>
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<td>Currie</td>
<td>Dept of Infrastructure (Vic)</td>
<td>53,000</td>
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<td>Powerlink Queensland</td>
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<tr>
<td>Hatt</td>
<td>Melbourne Water – Banyan Reserve</td>
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<td>Melbourne Water</td>
<td>45,510</td>
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<td>Melbourne Water (STaPS) – EIP G&amp;S upgrade</td>
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<td>Rose</td>
<td>Vic Roads Motor cycles transport strategy</td>
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<td>Dept Transport (Vic) – Eco Driving</td>
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<td>Investigators</td>
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<td>Wang</td>
<td>VicRoads – Multi bottlenecks</td>
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<td>Young</td>
<td>Vic Government – Public Transport Chair</td>
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<td><strong>Contract Research – Local Government</strong></td>
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<td>Kodikara</td>
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<td><strong>Grants – Research (State Government)</strong></td>
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<tr>
<td>Bouazza</td>
<td>Sustainability Victoria</td>
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<tr>
<td>Collins</td>
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<tr>
<td>Currie</td>
<td>Department of Infrastructure</td>
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<tr>
<td>Fletcher</td>
<td>Dept of Sustainability &amp; Environment (via Melb Uni)</td>
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<tr>
<td>Kodikara</td>
<td>City West Water (Industry component to Linkage Grant)</td>
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<tr>
<td>McCarthy</td>
<td>Smart Water Fund Round 5</td>
<td>30,667</td>
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<td><strong>Grants – Research (Commonwealth Government)</strong></td>
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<tr>
<td>Deletic et al</td>
<td>DIISR – PREPARED – Enabling change</td>
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<td>Fletcher</td>
<td>Dept of Science Education &amp; Training</td>
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<td><strong>Grants – Research (Australian Industry)</strong></td>
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<td>Adam</td>
<td>ITC Timber Heyfield Pty Ltd</td>
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<td>Adam</td>
<td>CHEP Aust Ltd Performance Evaluation</td>
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<td>Bouazza</td>
<td>Golder Assoc/VibroPile – Sustainability Victoria</td>
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<td>Geotech</td>
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<td>Industry Partners (ARC Linkage Grant)</td>
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<td>Business Assoc. Vic</td>
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<td>Darlington</td>
<td>BHP Billiton</td>
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<td>Deletic</td>
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<td>Deletic/Fletcher</td>
<td>CERES Inc (Industry component to Linkage Grant)</td>
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<td>Deletic et al</td>
<td>Jewish National Fund</td>
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<td>Kodikara</td>
<td>Alinta Net Services (Industry Component to Linkage Project)</td>
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<tr>
<td>Mudd</td>
<td>Gundjeihmi Aboriginal Corp</td>
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<td>Rose</td>
<td>Aust Roads Res Board – Alt vehicles</td>
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<td></td>
<td><strong>Cooperative Research Centres</strong></td>
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<td>Shukla</td>
<td>CO₂ CRC Scholarship</td>
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<tr>
<td>Deletic/Fletcher</td>
<td>MUSIC 4 Development</td>
<td>107,038</td>
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<td></td>
<td>eWater Scholarships</td>
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<tr>
<td></td>
<td><strong>Forest and Wood Research and Development Corporation</strong></td>
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</tr>
<tr>
<td>Adam</td>
<td>Glulam design on lamination grades and the use of mill shorts</td>
<td>40,000</td>
</tr>
<tr>
<td></td>
<td><strong>Faculty of Engineering Small Grants Scheme</strong></td>
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<td>Total Funds Received</td>
<td>111,500</td>
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<td></td>
<td><strong>Faculty of Engineering New Staff Member Grants Scheme</strong></td>
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<td></td>
<td>Total Funds Received</td>
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<td></td>
<td><strong>Total Funding Awarded in 2009</strong></td>
<td>$3,801,830</td>
</tr>
</tbody>
</table>
4.3 Research activity in Centres (ITS, FAWB, MAPPS)

Institute of Transport Studies

The research activities of ITS (Monash) continued to grow in 2009 as evidenced by the 24 tier-one international journal and conference papers being published during the year and the attraction of over $1,000,000 in research funds. ITS (Monash) has increased its role in multi-disciplinary sustainability-related research. It has been involved in research with Department of Psychological Studies, Sustainability Victoria, Cement Industry Federation, Austroads, Monash University Accident Research Centre (MUARC), ARRB Transport Research and Department of Transport, covering areas of traffic safety, public transport use, freeway operations, freight performance and bicycle travel. Reflecting the growth in the research activities, ITS (Monash) has seen continued increase in the number of students enrolled in research degrees with over 25 Higher Degree Research students now enrolled.

Further details about the Institute can be found at its website at: http://civil.eng.monash.edu.au/its

FAWB (Facility for Advanced Water Biofiltration)

The Facility for Advancing Water Biofiltration (FAWB) is a joint venture research facility between EDAW Australia and Monash University. It was established in 2005 with the support of $1.46 million in funding from the third round of the STI Infrastructure Grant Program and almost $1 million from Industry partners. FAWB aims at providing better and safer solutions for the on-site treatment and management of stormwater through improved stormwater biofiltration. FAWB established agreements with seven collaborators at the onset of the research program. Novel biofiltration systems were built by FAWB’s collaborators in consultation with FAWB across 18 sites in Melbourne, Brisbane and Sydney. These demonstration sites allowed collaborators to assess facilities and gave them confidence to proceed with the adoption of innovative biofiltration technologies.

In 2009, staff continued the Monash University-led project called ‘Water Sensitive Cities’ believing the time was right for a bold idea that could produce 20 to 30 percent of Melbourne’s future water needs. The project will harness stormwater to overcome water shortages, reduce urban temperatures and improve the landscape and liveability of Australian cities. Most models involve capturing stormwater in neighbourhood parks and creeks, letting nature clean it through bio-filtration, then reusing it in toilets, for washing and on gardens. The stormwater treatment systems will also help cool increasingly hot cities and protect the health of urban waterways. The systems can be adapted to most major cities and the team is currently running pilots in Israel and Singapore. The official launch of a biofilter in the Israeli town of Kfar Sava, designed to recycle the town’s rainwater, was carried out in November 2009, the technology being the work of Mr Yaron Zinger who is working towards a PhD.

FAWB is also an invited partner to a 7 Million Euros project for the European Union on adaptation of urban water systems to climate change.

Further details about the Facility can be found on its website at: www.monash.edu.au/fawb/

Management And Prediction of Pipe BurstS (MAPPS)

The activities of MAPPS Group included activities in current ARC Linkage Grant on water and gas reticulation pipelines, activities in CSIRO Cluster on seabed pipelines and submission of a Linkage Grant application on the advanced condition assessment and failure prediction technologies for optimal management of critical water supply pipelines. Current ARC Linkage project work involved field monitoring of two instrumented pipeline locations in Altona and Fawkner and monitoring of moisture profiles in insitu pipe sites at 22 locations in Melbourne and surrounding areas using a neutron probe. Dr Chaminda Gallage resigned from the position of Research Fellow in June 2009 to join Queensland University of Technology as a lecturer. Dr Nathan Rajeev took up the position vacated by Chaminda in June as well. Various publications and outcomes were generated from current linkage project, which can be found at: http://civil.eng.monash.edu.au/expertise/geomechanics/mapps.

Another interesting activity the Group embarked into was the use of thermal imaging to research detection of leaks in reticulation pipe systems. In addition, Associate Professor Kodikara led the submission of an ARC Linkage Grant application on large diameter pipelines in November 2009, involving a large number of local and overseas partners and three local universities. The proposed project carried a total cash and in-kind budget of $25.6 million.
4.4 Research seminars

By visitors to the Department

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Seminar topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Guo-Qiang Li, Tongji University, Shanghai, PR China</td>
<td>Behaviour of restrained steel components in fire</td>
</tr>
<tr>
<td>Associate Professor Yoshiaki Okui, Saitama University, Japan</td>
<td>Investigation on bending moment capacity of steel concrete bridges</td>
</tr>
<tr>
<td>Dr Andreas Ciroth</td>
<td>Open Source LCA: Earthster and other developments</td>
</tr>
<tr>
<td>Dr Manas Shome, Worley Parsons, Canada</td>
<td>Development of an integrated hydrologic-hydraulic model using MIKE SHE for the Lesser Slave River Basin, Alberta, Canada</td>
</tr>
<tr>
<td>Dr Tom Beer, (CSIRO) Transport Biofuels Stream</td>
<td>Energy and the environmental future of Australian transport</td>
</tr>
<tr>
<td>Dr Ian Bennetts, Principal Risk Consultant, Noel Arnold &amp; Associates</td>
<td>Aspects of the fire resistance of structures</td>
</tr>
<tr>
<td>Dr John St George, Dept of Civil &amp; Environmental Engineering, University of Auckland, New Zealand</td>
<td>Permeability studies related to the assessment of carbon dioxide sequestration in the Waikato Coalfields</td>
</tr>
<tr>
<td>Professor Amir Fam, Professor and Canada Research Chair in Innovative and Retrofitted Structures, Dept of Civil Engineering, Queens University, Canada</td>
<td>FRP applications for retrofitting steel girders and columns and in prestressed piles made of concrete-filled tubes</td>
</tr>
<tr>
<td>Associate Prof Fathi Shaqour, Dept Applied Geology and Environment, University of Jordan, Jordan</td>
<td>Some Geo-environmental impacts of the Gulf Wars: Examples from Jordan and Kuwait</td>
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<tr>
<td>Dr Jay N. Meegoda, P. E., Professor of Civil &amp; Environmental Engineering, New Jersey Institute of Technology, Newark NJ, USA</td>
<td>Innovation and research for water infrastructure for the 21st century</td>
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</table>

By staff and postgraduate students

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Seminar topic</th>
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</thead>
<tbody>
<tr>
<td>Eric Chong</td>
<td>Uplift and lateral capacity of single piles socketed into jointed rock mass</td>
</tr>
<tr>
<td>Michael Moffatt</td>
<td>The effect of multiple axle group loads on road pavement performance</td>
</tr>
<tr>
<td>Associate Professor Geoff Rose</td>
<td>Emerging types of private vehicles and their implications for road system management</td>
</tr>
<tr>
<td>Harpreet Kandra</td>
<td>Performance assessment of porous pavements/fine media filter systems</td>
</tr>
<tr>
<td>David Choy</td>
<td>Developing a framework for assessing the environmental sustainability of Aquifer storage and recovery</td>
</tr>
<tr>
<td>Professor William Young</td>
<td>Sustainable Research Structures</td>
</tr>
<tr>
<td>Professor Graham Currie</td>
<td>Exploring links between changes in fuel prices and rail ridership – Australia and North American experience</td>
</tr>
<tr>
<td>Evan Gwee</td>
<td>Expanding the cost-benefit analysis framework for urban passenger rail-estimation of agglomeration benefits</td>
</tr>
<tr>
<td>Associate Professor Bob Keller</td>
<td>Interdisciplinary projects – stories from the front line or collaboration blues – a light hearted look at how I learned to stop worrying and love statistics</td>
</tr>
<tr>
<td>Kok Yun Lee</td>
<td>Continuous mechanistic deterioration modelling of road pavements</td>
</tr>
<tr>
<td>Paul Harner</td>
<td>Travel and parking impacts of the Melbourne CBD parking levy</td>
</tr>
<tr>
<td>Siavash Hashemi</td>
<td>Cement based bonding materials for FRP strengthening of RC structures</td>
</tr>
<tr>
<td>Jawdat Tashan</td>
<td>Detection of bond defects in CFRP systems bonded to concrete using infra-red thermography</td>
</tr>
<tr>
<td>Amir Sobhani</td>
<td>Assessing safety performance of intersections using simulation models</td>
</tr>
<tr>
<td>Mike Shackleton</td>
<td>Towards road infrastructure research performance measures</td>
</tr>
<tr>
<td>Victoria Johnson</td>
<td>Investigating the role of transport in arts participation and social inclusion</td>
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<tr>
<td>Hussein Sadiq</td>
<td>Strengthening of structural steel members in fire using shape memory alloys</td>
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<tr>
<td>Tanveer Saeed</td>
<td>Subsurface flow constructed wetlands for the treatment and recycle of domestic wastewater</td>
</tr>
<tr>
<td>Ali Zavabeti</td>
<td>Development of a platform to study driver’s behaviour using real traffic data</td>
</tr>
<tr>
<td>Rawaa Al-Safy</td>
<td>CFRP strengthening of concrete structures using nanomaterials modified adhesives</td>
</tr>
</tbody>
</table>

Mr Mike Moffatt won the ‘Best Departmental Seminar Presentation’ Award for 2009.
Mr Ben Shannon won the ‘Best Departmental Seminar Attendance’ Award for 2009.
4.5 Publications

Books


Book Chapters


Wang, Y. 2009, ‘The role of macroscopic modeling in the simulation, surveillance and control of motorway network traffic’ in Transportation Simulation – Beyond Traditional Approaches, eds. E. Chung and A.G. Dumont, EPFL Press, Lausanne Switzerland, pp. 3-25.

Edited Books


Journal papers: Peer-reviewed


Conference papers: Peer-reviewed


Mashiri, F.R., Zhao, X.L. and Han, L.H. 2009, ‘Fatigue design of square hollow section tubular T-joints with concrete-filled chords under in-plane bending’, in Proceedings of the Sixth Int. Conf. on Advances in Steel Structures, Ed. S.L. Chan, Hong Kong Institute of Steel Construction, China, pp. 620-627.


### 4.6 Postgraduate research projects

<table>
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<tr>
<th>Student name</th>
<th>Project title</th>
<th>Main supervisor</th>
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<td><strong>MEngSc</strong></td>
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<tr>
<td>Farhana Ahmed</td>
<td>Impact of weather on commuter cycling behaviour and possible effects of climate change</td>
<td>Associate Professor G Rose</td>
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<tr>
<td>David Barry-Macaulay</td>
<td>Thermo-mechanical behaviour of Victorian Soils</td>
<td>Associate Professor A Bouazza</td>
</tr>
<tr>
<td>Matthew Burns</td>
<td>Urban hydrology and waterway health</td>
<td>Associate Professor Tim Fletcher</td>
</tr>
<tr>
<td>Navinda De Silva</td>
<td>An investigation of mechanical properties and permeability of coal with respect to CO2 sequestration</td>
<td>Dr Ranjith PG</td>
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<tr>
<td>Jason Ellerton</td>
<td>The effect of competition between plants on the treatment performance of stormwater biofiltration systems</td>
<td>Dr B Hatt</td>
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<tr>
<td>Ip, Mau Chung</td>
<td>Filtration behaviour of cohesionless soils under cyclic loading</td>
<td>Dr A Haque</td>
</tr>
<tr>
<td>Paul Hamer</td>
<td>Monitoring the Impacts of the Melbourne CBD Parking Levy</td>
<td>Professor G Currie</td>
</tr>
<tr>
<td>Zulsam Kifli</td>
<td>Relationship between parking and land use/transport policy</td>
<td>Professor W Young</td>
</tr>
<tr>
<td>Senthilkumar Muthukrishnan</td>
<td>Modeling of degradation of Rock Joint Behaviour</td>
<td>Associate Professor J Kodikara</td>
</tr>
<tr>
<td>Alice Niculescu</td>
<td>Impact of biofiltration systems on water and greenhouse gases in urban areas</td>
<td>Dr E Daly</td>
</tr>
<tr>
<td>Felipe Orellana</td>
<td>Estimation and Modelling of Evapotranspiration in Groundwater Dependent Ecosystems</td>
<td>Dr E Daly</td>
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<tr>
<td>Brendan Pender</td>
<td>Objectives in transport scheduling</td>
<td>Professor G Currie</td>
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<tr>
<td>Samintha Perera</td>
<td>Effect of carbon dioxide sequestration on coal hydro-mechanical properties</td>
<td>Dr Ranjith PG</td>
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<tr>
<td>Tracey Mai Tram Pham</td>
<td>The influence of vegetation on hydrology and pollutant removal in biofilter</td>
<td>Dr B Hatt</td>
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<tr>
<td>Michael Poustie</td>
<td>Towards Sustainable Groundwater Management: A cast Study: Tagabe Catchment, Port Vila, Vanuatu</td>
<td>Professor A Deletic</td>
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<td>Hassan Sabzehali</td>
<td>Development of a framework for environmentally friendly intelligent eco-vehicle</td>
<td>Dr M Sarvi</td>
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<tr>
<td>Benjamin Shannon</td>
<td>Fracture Propagation of Cohesive Soils under Tensile Loading and Desiccation</td>
<td>Dr J Kodikara</td>
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<tr>
<td>Binu Stanley</td>
<td>Effect of pyrite oxidation on strength and compressibility of treated Coode Island silt</td>
<td>Dr A Haque</td>
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<tr>
<td>Guohui Tan</td>
<td>Structural crashworthiness performance of vehicle roofs in rollover crashes</td>
<td>Dr M Bambach</td>
</tr>
<tr>
<td>Bill Wang</td>
<td>Behavior of pile foundations subject to thermal loading</td>
<td>Associate Professor A Bouazza</td>
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<tr>
<td>Sasika Wijessoriya</td>
<td>Modelling of desiccation cracking in compacted clay liners and covers</td>
<td>Associate Professor J Kodikara</td>
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<tr>
<td>Chao Wu</td>
<td>Bond characteristics, fatigue and durability of steel plates strengthened with high modulus CFRP plate</td>
<td>Prof X-L Zhao</td>
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<tr>
<td>Ali Zavabeti</td>
<td>The removal of metals and arsenics from contaminated water using natural occurring minerals and construction wetlands</td>
<td>Dr M Sarvi</td>
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<td><strong>PhD</strong></td>
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<tr>
<td>Basim Abbas</td>
<td>Durability of CFRP repaired structural members and their cyclic temperature and humidity</td>
<td>Associate Professor R Al-Mahaidi</td>
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<tr>
<td>Siti Abdullah</td>
<td>FRP Rehabilitation of Alkali Aggregate Reaction Damaged Concrete Structures.</td>
<td>Associate Professor R Al-Mahaidi</td>
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<tr>
<td>Md Aftabuzzaman</td>
<td>Understanding the road traffic congestion relief impacts of public transport</td>
<td>Prof G Currie</td>
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<tr>
<td>Kayvan Aghabayk</td>
<td>Relationship between rate of accidents and road consistency parameters on rural two-lane highways in Australia</td>
<td>Prof W Young</td>
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<tr>
<td>Student name</td>
<td>Project title</td>
<td>Main supervisor</td>
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<tr>
<td>Rawa Al-Safy</td>
<td>CFRP strengthening of concrete structures using nanomaterials modified adhesives</td>
<td>Associate Professor R Al-Mahaidi</td>
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<tr>
<td>Haider Al-Zubaidy</td>
<td>FRP Strengthening of metal structures for impact and blast loads</td>
<td>Dr M Bambach</td>
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<tr>
<td>Tao Bai</td>
<td>The study of bond behaviour of CFRP reinforced steel plates under high-amplitude cyclic loading</td>
<td>Associate Professor R Al-Mahaidi</td>
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<tr>
<td>Derek Chun Chuen Chan</td>
<td>Prediction and controlling of water and gas pipe failures and ground response using surveying and geophysical testing methods.</td>
<td>Associate Professor J Kodikara</td>
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<tr>
<td>Wai Loong Chong</td>
<td>Lateral and uplift load capacity of single piles socketed into jointed rock mass</td>
<td>Dr A Haque</td>
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<tr>
<td>Bishwajit Chowdhury</td>
<td>Improvement of soft clay by mixing lime-slag</td>
<td>Dr A Haque</td>
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<td>David Kam Wai Choy</td>
<td>Developing a framework for assessing the environmental sustainability of aquifer storage and recovery</td>
<td>Dr G Mudd</td>
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<td>Susanga Costa</td>
<td>Modelling of shrinkage crack development in clay soils</td>
<td>Associate Professor J Kodikara</td>
</tr>
<tr>
<td>Daniel Csikos</td>
<td>Identifying measures of public transport reliability performance that are related to passenger perceptions</td>
<td>Professor G Currie</td>
</tr>
<tr>
<td>Will Darlington</td>
<td>Investigating of strength deformability and failure of mechanisms of rock slopes in large open pit mines</td>
<td>Dr Ranjith PG</td>
</tr>
<tr>
<td>Cintia Dotto</td>
<td>Uncertainties and scale issues in stormwater pollution generation and treatment modelling</td>
<td>Professor A Deletic</td>
</tr>
<tr>
<td>Haydar Faleh</td>
<td>An investigation of the delamination of FRP composites from steel plates using the material point method</td>
<td>Associate Professor R Al-Mahaidi</td>
</tr>
<tr>
<td>David Flower</td>
<td>An Integrated Approach to Modelling Urban Water Systems</td>
<td>Dr G Mitchell</td>
</tr>
<tr>
<td>Matthew Francey</td>
<td>Pollutant generation from urban catchments</td>
<td>Prof A Deletic</td>
</tr>
<tr>
<td>Kumari Gamage</td>
<td>Fire resistance of CFRP plated concrete members</td>
<td>Associate Professor R Al-Mahaidi</td>
</tr>
<tr>
<td>Joel Gniel</td>
<td>Investigation of the use of geogrid encasement for support of stone columns in very soft soils</td>
<td>Associate Professor A Bouazza</td>
</tr>
<tr>
<td>Scott Gould</td>
<td>Prediction and controlling of pipe failures in buried water and gas pipe systems</td>
<td>Associate Professor J Kodikara</td>
</tr>
<tr>
<td>Tat Meng (Evan) Gwee)</td>
<td>Development of a new methodology to estimate the economic impacts of agglomeration economies in urban passenger rail projects</td>
<td>Prof G Currie</td>
</tr>
<tr>
<td>Jimmy Haedir</td>
<td>Development of high strength bollards</td>
<td>Dr M Bambach</td>
</tr>
<tr>
<td>Siavash Hashemi</td>
<td>Evaluation of the properties of several types of repair concretes</td>
<td>Associate Professor R Al-Mahaidi</td>
</tr>
<tr>
<td>Young-Sun Heo</td>
<td>Fire resistance of high strength concrete</td>
<td>Associate Professor J Sanjayan</td>
</tr>
<tr>
<td>Hussein Jama</td>
<td>Thin-walled structures subjected to impact and blast loads</td>
<td>Dr M Bambach</td>
</tr>
<tr>
<td>Dileeka Jasinge</td>
<td>An investigation of the effect of carbon dioxide sequestration on the behaviour of brown coal</td>
<td>Dr Ranjith PG</td>
</tr>
<tr>
<td>Victoria Johnson</td>
<td>Transport disadvantage and social policy</td>
<td>Professor G Currie</td>
</tr>
<tr>
<td>Harpreet Kandra</td>
<td>Performance assessment of porous pavements/fine media filter systems</td>
<td>Professor A Deletic</td>
</tr>
<tr>
<td>Daniel Lean Yew Kong</td>
<td>Development of a high fire resistant geopolymer based concrete</td>
<td>Associate Professor J Sanjayan</td>
</tr>
<tr>
<td>Nurses Kurucuk</td>
<td>Multi-scale studies of unsaturated granular geomaterials during one-dimensional compression</td>
<td>Associate Professor J Kodikara</td>
</tr>
<tr>
<td>Yang Liu</td>
<td>Hydro-mechanical effects of microbially induced cementation of CO2 in carbonates</td>
<td>Associate Professor A Bouazza</td>
</tr>
<tr>
<td>Katherine Lizama</td>
<td>The removal of metals and arsenics from contaminated water using natural occurring minerals and construction wetlands</td>
<td>Dr G Sun/Associate Professor Tim Fletcher</td>
</tr>
<tr>
<td>Student name</td>
<td>Project title</td>
<td>Main supervisor</td>
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<tr>
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<tr>
<td>Hui Lu</td>
<td>Fire resistance of composite tubular members</td>
<td>Professor X-L Zhao</td>
</tr>
<tr>
<td>Soheila Maduliat</td>
<td>Inelastic behaviour of high strength steel channel sections in bending</td>
<td>Dr M Bambach</td>
</tr>
<tr>
<td>Tony Matacin</td>
<td>A rational method of specification of unbound geomaterials in road pavements</td>
<td>Associate Prof J Kodikara</td>
</tr>
<tr>
<td>Ehsan Mazloumi</td>
<td>The prediction of on-road public transport travel time and its variability</td>
<td>Professor G Currie</td>
</tr>
<tr>
<td>Alessandra Mendes</td>
<td>Fire resistance of concrete made with slag blended cements</td>
<td>Associate Professor J Sanjayan</td>
</tr>
<tr>
<td>Mahmoud Mesbah</td>
<td>A methodology to optimize transit road space priority at the network level</td>
<td>Dr M Sarvi</td>
</tr>
<tr>
<td>Sara Moripour</td>
<td>Modelling the lane changing behaviour of heavy vehicles in congested traffic conditions</td>
<td>Dr M Sarvi</td>
</tr>
<tr>
<td>Michael Moffatt</td>
<td>The influence of multiple axle loads on pavement performance</td>
<td>Professor W Young</td>
</tr>
<tr>
<td>Tien Nguyen</td>
<td>Environmental durability of steel structures strengthened with carbon fibre reinforced polymer composites</td>
<td>Dr M Bambach</td>
</tr>
<tr>
<td>Zhu Pan</td>
<td>Investigation of geopolymer based concretes for the construction of high fire risk infrastructures</td>
<td>Associate Professor J Sanjayan</td>
</tr>
<tr>
<td>Avijit Paul</td>
<td>Development and testing of stormwater quantity and quality models based on radar rainfall data</td>
<td>Dr S Ghosh (IITB), Professor A Deletic/Dr D McCarthy</td>
</tr>
<tr>
<td>Emily Payne</td>
<td>The role of vegetation in removal of nitrogen within stormwater biofiltration systems</td>
<td>Dr B Hatt</td>
</tr>
<tr>
<td>Balamurali Raju</td>
<td>Geo-sequestration of carbon dioxide in coal seams</td>
<td>Professor D Chandrasekharan (IITB), Dr Ranjith/Associate Professor A Bouazza</td>
</tr>
<tr>
<td>Hussein Sadiq</td>
<td>Steel structure – progressive collapse of steel structures in fire</td>
<td>Dr B Wong</td>
</tr>
<tr>
<td>Tanveer Saeed</td>
<td>Subsurface flow constructed wetlands for the treatment and recycle of domestic wastewater</td>
<td>Dr G Sun</td>
</tr>
<tr>
<td>Matthew Sentry</td>
<td>Investigation of Fibre Reinforced Polymer (FRP) strands as an alternative for steel strands in High Capacity Ground Anchors</td>
<td>Associate Professor A Bouazza</td>
</tr>
<tr>
<td>Mike Shackleton</td>
<td>Quality and impact of transportation research</td>
<td>Prof W Young</td>
</tr>
<tr>
<td>Kunal Kumar Singh</td>
<td>Investigation of permeability of fractured, steep and deep rock slopes with high ground water pressures</td>
<td>Dr Ranjith PG/ Prof D Singh (IITB)</td>
</tr>
<tr>
<td>Nirajan Shiwakoti</td>
<td>Simulating crowd dynamics under emergency conditions</td>
<td>Dr M Sarvi</td>
</tr>
<tr>
<td>Richa Shukla</td>
<td>Geo-sequestration of carbon dioxide and caprock integrity</td>
<td>Dr Ranjith PG</td>
</tr>
<tr>
<td>Jawdat Tashan</td>
<td>Non Destructive Tests – Evaluation of concrete structures using non destructive tests (NDT)</td>
<td>Associate Professor R Al-Mahaidi</td>
</tr>
<tr>
<td>Roger Toleman</td>
<td>Parting of the Ways? Toll Roads and Sustainability in Australia</td>
<td>Associate Professor G Rose</td>
</tr>
<tr>
<td>Mohan Yellishetty</td>
<td>Achieving environmental stewardship in iron and steel sector through application of life cycle analysis</td>
<td>Dr Ranjith PG</td>
</tr>
<tr>
<td>Matthew Wightwick</td>
<td>Improvement of the performance of water-sensitive geomaterials using hydrophobic additives</td>
<td>Associate Professor J Kodikara</td>
</tr>
<tr>
<td>Richard Yeo</td>
<td>Effects of emerging large road freight vehicles on the performance of typical Australian road pavements</td>
<td>Professor W Young</td>
</tr>
<tr>
<td>Chui Fern Yong</td>
<td>Could porous pavements be a part of the urban water solution?</td>
<td>Professor A Deletic</td>
</tr>
<tr>
<td>David Young</td>
<td>Protecting occupants in vehicle rollover crashes</td>
<td>Dr M Bambach</td>
</tr>
<tr>
<td>Ren Zhao</td>
<td>Investigation of spalling of geopolymer based concrete of high fire risk infrastructures.</td>
<td>Associate Professor J Sanjayan</td>
</tr>
</tbody>
</table>
4.7 Theses accepted for Higher Degree in 2009

**MEngSc (Research)**

<table>
<thead>
<tr>
<th>Last name</th>
<th>First name</th>
<th>Supervisor(s)</th>
<th>Thesis title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klaas</td>
<td>Dua</td>
<td>Dr Gavin Mudd</td>
<td>Indigenous water management sustainable water conservation strategies in karstic dominated area in Rote Island NTT Province, Indonesia</td>
</tr>
<tr>
<td>Tan</td>
<td>Guo hui</td>
<td>Dr Mike Bambach</td>
<td>Perforated hat sections subjected to large rotation pure bending</td>
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</table>

**PhD**

<table>
<thead>
<tr>
<th>Last name</th>
<th>First name</th>
<th>Supervisor(s)</th>
<th>Thesis title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li</td>
<td>Yong</td>
<td>Professor Ana Deletic/Associate Professor Tim Fletcher</td>
<td>Modelling sediment behaviour in constructed stormwater wetlands</td>
</tr>
<tr>
<td>Guerrieri</td>
<td>Maurice</td>
<td>Associate Professor Jay Sanjayan</td>
<td>Fire performance of alkali activated slag and geopolymers</td>
</tr>
<tr>
<td>Flower</td>
<td>David</td>
<td>Dr Grace Mitchell/Associate Professor Gary Codner</td>
<td>An integrated approach to modelling urban water systems</td>
</tr>
<tr>
<td>Richardson</td>
<td>Shane</td>
<td>Dr Mike Bambach</td>
<td>Performance criteria for effective structural rollover protective systems for light passenger vehicles</td>
</tr>
<tr>
<td>Gniel</td>
<td>Joel</td>
<td>Associate Professor Malek Bouazza/Associate Professor Jayantha Kodikara/Dr Chris Haberfield</td>
<td>An investigation into ground improvement using geogrid encased stone columns</td>
</tr>
<tr>
<td>Jama</td>
<td>Hussein</td>
<td>Dr Mike Bambach/Professor Raphael Grzebieta</td>
<td>The behaviour of tubular steel beams subjected to transverse blast loads</td>
</tr>
<tr>
<td>Kong</td>
<td>Daniel Lean Yew</td>
<td>Associate Professor Jay Sanjayan</td>
<td>Fire resistance of geopolymer concretes</td>
</tr>
<tr>
<td>Nahlawi</td>
<td>Hani</td>
<td>Associate Prof Malek Bouazza/Associate Professor Jayantha Kodikara</td>
<td>Experimental and numerical investigation of the unsaturated hydraulic behaviour of geotextiles</td>
</tr>
<tr>
<td>Wightwick</td>
<td>Matthew</td>
<td>Associate Prof Jayantha Kodikara/Dr Ranjitih</td>
<td>Improvement of the performance of water-sensitive geomaterials using hydrophobic additives</td>
</tr>
</tbody>
</table>
4.8 Graduating Class of 2009 (Postgraduate Students)

Master of Engineering Science (Research)
- Guohui Tan

Master of Infrastructure Engineering and Management
- Aruna Welgama
- Thyagie Samika Wettasinghe
- James Shiu Tung Wong Michael Kenneth Hall
- Wilfred Osa Ihegie
- Russell King
- Malcolm James Sharkey
- Evan Tyrone Styles
- Nicole Kristen Cooper
- Inderbir Singh Grewal
- Charles Sturt
- Stanley Tapiwa Nyandowe
- Thillainayagam Santhaseelan
- Mardi Leigh Squier
- Master of Traffic
- Anthony Lyle Barton
- Amanda Jane Halley
- Le Minh Tuan
- Laura Denise Procter
- Shan Shao
- Queenie Hoi Wai Siu
- Jeffrey Robert Garry
- Anthony Russell Woods
- Paul Nathan Carter
- Michael John Smith
- Master of Transport
- Timothy David Rampton
- Haider Yousif
- Anthony Lyle Barton
- Renee Mieka Frossinakis
- Le Minh Tuan
- Michael Adrian Salvatore Marsicovetere
- Martin Conrad Ruschena

Postgraduate Diploma in Infrastructure Engineering and Management
- Janina Maria Pereira Mok

Graduate Certificate in Infrastructure Engineering and Management
- Natasha Anne Cercarelli

Doctor of Philosophy
- Dr Yong Li
- Dr David Thomas McCarthy
- Dr Anke Wendelborn
- Dr Sebastien Mael Le Coustumer
- Dr David Jonathan Mark Flower
- Dr Joel Robert Gniel
- Dr Maurice Guerrieri
- Dr Hussein Haji Jama
- Dr Daniel Kong
- Dr Hongbo Liu
- Dr Hani Nahlawi
- Dr Shane Andrew Richardson

Graduation ceremony, October 2009 – left to right, first row: Professor Xiao-Ling Zhao (Head of Department), Dr Hani Nahlawi, Dr Daniel Kong, Dr Maurice Guerrieri, Dr Hongbo Lui; second row: Dr Joel Gniel, Dr David Flower, Dr Hussein Jama, Professor Gary Codner (Associate Dean, Teaching)
5. Services

5.1 Contribution to professional organisations

Adam, Con
(Member, Standards Australia Committee TM-004 Glued Timber Products
Member, ISO/TC165 Standard Committee, Timber Structures

Al-Mahaidi, Riadh (Associate Professor)
Member, ACI-ASCE Committee 447 ‘Finite Element Analysis of Reinforced Concrete Structures’
Convener, ACI-ASCE 447 subcommittee on ‘Finite element modelling for the repair and rehabilitation of RC and masonry structures’
Member, American Concrete Institute ACI Committee 440 ‘Fibre Reinforced Polymer Reinforcement’
Member, Standards Australia Committee BD-101, ‘Retrofitting Structures by Plating’,
Member, Int. Advisory Panel for the Int. Symposium on Brittle Matrix composites held in Warsaw, Poland,
Member, Local Organising Committee, FRPRCS-9 Conference, held in Sydney NSW
Member, Int. Scientific Committee, FRPRCS-9 Conference, held in Sydney NSW
Member, Int. Scientific Committee, 3rd Int. Workshop on Conservation of Heritage Structures using FRM and SHM, to be held in Ottawa, Canada, August 2010

Bouazza, Malek (Associate Professor)
Member, Int. Geosynthetics Society Council
Vice-President, Australasian Chapter of International Geosynthetics Society (IGS)
Chair, Education and Asian activities committees, IGS
Co-Chair, Education and African activities committees, IGS
Core member and Coordinator, Technical Committee No 5 (Environmental Geotechnics) of the International Society of Soil Mechanics & Geotechnical Engineering
Member, Australian Standard Committee on Geosynthetics
Member ASCE, GI Institute, Geosynthetics Committee
Member, Scientific Committee, 1st African Regional Geosynthetics Conf., held in South Africa
Member, Scientific Committee, 7th French National Geosynthetics Conf., held in France
Member, Scientific Committee, Int. Conf. on Environmental Geotechnics, held in China
Member, Scientific Committee, 9th Int. Geosynthetics Conference, to be held in Brazil in 2010
Member, Scientific Committee, 6th Int. Congress Environmental Geotechnics, to be held in India in 2010

Codner, Gary (Associate Professor)
Chair, IEAust College of Environmental Engineers

Collins, Frank (Dr)
Member, ACI Committee 506.1 on Shotcrete for underground support
Member, ACI Committee 365 on Service life prediction of concrete structures
Member, Australian Standards Committees: CE-018-00-01 on Piling Code AS2159 and AS3600; Building Code of Australia
Member, ACI Committee 222 on ‘Corrosion of metals in concrete’
Member, ACI Committee 207 on ‘Mass concrete’
Member, RILEM (Reunion Int. des Laboratoires et Experts des Materiaux), TC-217-PRE

Currie, Graham (Professor)
Member, Transport and Social Inclusion Committee, Melbourne
Member, Minister for Public Transport’s Victorian Road-Based Public Transport Advisory Group, Melbourne
Member, Academic Network, Union Internationale des Transports Publics (UITP), France
Member, US Transportation Research Board – Committee AP050-Bus Transit Systems, Committee AP975- Light Rail Transit Systems, Committee AP025- Public Transportation Planning and Development, USA
Member, Australian Capital Territory Light Rail Reference Group

Daly, Edoardo (Dr)
Member, Ecohydrology Technical Subcommittee for Hydrology Section of the American Geophysical Union

Deletic, Ana (Professor)
Chair, UNESCO IHP-VI Data for Integrated Urban Water Management
Chair, Int. Working Group on Data and Models (under JCUD of IWA/IAHR)
Member, Committee of Sewer Systems and Processes Working Group, working under Joint Urban Drainage Committee of IWA and IAHR
Member, Data and Modelling Working Group, Joint Committee on Urban Drainage of IWA and IAHR
Member, SOCOMA Working Group, Joint Committee on Urban Drainage of IWA and IAHR
Treasurer, Joint Committee on Urban Drainage (under IWA/IAHR)
Member, Scientific Committee of the 8th UDM Conf. held in Tokyo, Japan, April

Fletcher, Tim (Associate Professor)
Member, Water Sensitive Urban Design Working Group, Joint Committee on Urban Drainage of IWA and IAHR
Member, Data and Modelling Working Group, Joint Committee on Urban Drainage of IWA and IAHR
Member, Scientific Committee, 9th Int. Conf. on Computing and Control for the Water Industry, held in Sheffield, UK, September
Member, Scientific Committee, 7th International Conference on Sustainable Techniques and Strategies for Urban Water Management (NOVATECH 2010), to be held in Lyon, France, in July 2010
Gates, Will (Dr)
Founder Member, Soft X-ray Beamline
Advisory Panel to develop
microspectroscopy and imaging
capabilities on the soft X-ray beamline
at the Australian Synchrotron
Chair, Clay Minerals Society Nominations Committee
Co-Organiser, Session HE05 ‘Moisture Transport Through Clay’, XIV Int. Clay Conference, Castellaneta Marina, Italy, held in June

Kodikara, Jayantha (Dr)
Member, Council of the Centre for Pavement Engineering Education
Core member and coordinator of
Technical Committee on Pavement Geotechnics of the International Society of Soil Mechanics and Geotechnical Engineering
Member, Austroads Committee on Road Stabilisation
Member, Australian Standard Committee on Soil Stabilisation
Member, AGS, Victorian Chapter Committee
Member, Council on Pavement Education
Member, Organising Committee of IAOMAG, ANZ 2011

Mudd, Gavin (Dr)
Elected member, Victorian Committee of the Society for Sustainability and Environmental Engineering (SSEE) Branch, Engineers Australia
Member, Organising Committee of the 3rd Int. Conf. on Mine Closure, held in Perth WA, September
Co-Chair, Organising Committee of the Int. Conf. on Sustainability and Environmental Engineering, held in Melbourne, November

Ranjith, P.G. (Dr)
Member, American Society of Civil Engineers (ASCE)
Member, Award Panel for Victorian Construction Award

Rose, Geoff (Associate Professor)
Member, IEAust National Committee on Transport
University Representative, US Transportation Research Board
Member, US Transportation Research Board, Committee ABE50 Travel Demand Management
University Representative, US Transportation Research Board
Member, Committee ABE50 on Travel Demand Management, US Transportation Research Board
Member, Scientific Committee, 12th World Conf. on Transport Research, to be held in Lisbon, Portugal in 2010

Sanjayan, Jay (Associate Professor)
President, Concrete Institute of Australia, Victoria Branch
Elected National Councillor, Concrete Institute of Australia
Member, Permanent Committee of the International Association of Bridge and Structural Engineers
Member, Concrete Structures (WC3) of the International Association of Bridge and Structural Engineers
Member, Committee 233 – Ground Slag in Concrete (voting member), American Concrete Institute
Member, Committee 216 – Fire Resistance and Fire Protection of Structures (voting member), American Concrete Institute
Member and Convener, Organising Committee, Seminar on Cracking in Concrete for Concrete Institute of Australia, Victoria Branch

Sarvi, Majid (Dr)
Member, Engineers Australia, Transport Branch

Sun, Guangzhi (Dr)
Member, Constructed Wetland Association
Member, Scientific Committee and Session Chair for the 12th Int. Conf. on Wetland Systems for Water Pollution Control to be held in Venice, Italy in October 2010

Wang, Yibing (Dr)
Member, Institute of Electrical and Electronic Engineers (IEEE)
Member, IEEE Society of Intelligent Transportation Systems
Member, Paper Review Sub-Committee, Freeway Operation Committee, Transportation Research Board of the National Academies (USA)
Member, Organising Committee, 13th IEEE Annual Conference on Intelligent Transportation Systems to be held in 2010
Member, Int. Federation of Automatic Control Technical Committee on Transport Systems
Member, Int. Advisory Committee of the European Project NEARCTICS

Wong, Bill (Dr)
Member, Engineers Australia Structural Branch Committee, Victoria
Member, Organising Committee for the Aust. Structural Engineering Conference, Melbourne

Young, William (Professor)
Member, Standards Association of Australia, Parking Committee
Member, Committee CE-001, Parking Facilities, Part 6: Off-street parking for people with disabilities

Zhao, Xiao-Ling (Professor)
Chairman, IIW Subcommission XV-E on Tubular Structures
Chairman, IIFC (Int. Institute for FRP in Construction) working group on FRP-strengthened metallic structures)
Member, Int. Scientific Committee, Asia-Pacific Conf. on FRP in Structures (APFIS 2009), held in Korea, December
Member, Int. Scientific Committee, 6th Int. Conf. on Advances in Steel Structures, held in Hong Kong, China, December
Member, Int. Scientific Committee, 13th Int. Symposium on Tubular Structures, to be held in Hong Kong, China in December 2010
5.2 Editorial services

Adam, Con (Dr)
Reviewer, J. of Structural Engineering (ASCE)

Al-Mahaidi, Riadh (Associate Professor)
Member, Editorial Advisory Board, Open Construction and Building Technology Journal, Bentham Science Publishers
Member, Editorial Advisory Board, Open Materials Science Journal, Bentham Science Publishers
Guest Editor, Australian J. of Structural Engineering, Special Issue on fibre reinforcement in concrete structures
Reviewer, Grants for the Qatar National Research Fund (QNRF), Qatar Foundation
Examiner, PhD thesis for the University of Southern Queensland, Australia

Bambach, Michael (Dr)
Reviewer of the following journals: J. of Engineering Mechanics (ASCE); J. of Structural Engineering (ASCE); Advances in Structural Engineering; J. of Thin-Walled Structures, J. of Composites Materials, J. of Composite Structures, J. of Engineering Structures

Bouazza, Malek (Associate Professor)
Member, Editorial Board of the International Journal of Geotextiles and Geomembranes
Member, Editorial Board of the International Journal of Lowland Technology
Member, Editorial Board of Geosynthetics International
Member, Editorial Board of the Journal of Geotechnical & Geoenvironmental Engineering
Member, Editorial Board of the Journal of Geotechnical and Geological Engineering
Panel Member, Landfill Award, Waste Management Association of Australia
Panel Member, Awards from IGS
Examiner, Doctoral thesis oral defence at University Joseph Fourier, Grenoble France, September
Examiner, Doctoral thesis from National University of Singapore
ARC/ERA Journals Review Committee; ARC OZReader
Reviewer, Grant Applications from Swiss Research Council

Collins, Frank (Dr)
Reviewer for the following journals: ACI Materials Journal; Int. J. of Advances in Structural Engineering; Fire Safety J.; Corrosion and Materials J.; Cement and Concrete Composites J., Building and Environment J., Materials and Structures J. (RILEM), Corrosion Science J. (NACE), Fire and Materials J., American Concrete Institute Materials J.
Reviewer, RILEM TC-217-PRE ‘Progress of recycling in the built environment’ OzReader, ARC Discovery Grant Applications

Currie, Graham (Professor)
Member, Editorial Board, Road and Transport Research Journal
Member, Editorial Advisory Board, Institution of Civil Engineers (UK) Transport Journal
Reviewer, Freeway Operation Committee papers, Transportation Research Board, USA
Reviewer, Australian Transport Research Forum, held in Auckland NZ
Reviewer, Annual Meeting of the Transportation Research Board USA, to be held in 2010
Reviewer, PhD thesis for Victoria University of Wellington, NZ on ‘The Social Environment of Public Transport’

Daly, Edoardo (Dr)
Reviewer for the following journals: Water Resources Research, Int. J. of Climatology, J. of Hydrology

Deletic, Ana (Professor)
Associate Editor, Water Research
ARC, OzReader

Duan, Wen Hui (Dr)

Fletcher, Tim (Associate Professor)
Associate Editor, Urban Water
Reader, ARC Discovery and Linkage projects
OzReader, ARC
Examiner (PhD Rapporteur) and Jury Member for thesis of Darnien Granger at INSA Lyon, France
Gates, Will (Dr)
Associate Editor, Clay and Clay Minerals
Member, Editorial Board, J. of Applied Clay Science
Special Publications Editor, Clay Minerals Society
Reviewer of the following journals: Applied Clay Science, J. of Near Infrared Spectroscopy; Geosynthetics International; Geotextiles and Geomembranes; J. of Geotechnical and Geoenvironmental Engineering; Clays and Clay Minerals; Molecular Modeling; Colloids and Interface Science; Vibrational Spectroscopy

Hatt, Belinda (Dr)
Reviewer for the following journals: Ecological Engineering, Science of the Total Environment, Urban Water, Water Research, J. of Hydrology

Haque, Asadul (Dr)
Reviewer, Canadian Geotechnical Journal

Kodikara, Jayantha (Associate Professor)
Associate Editor, Canadian Geotechnical Journal
Reviewer of the following journals: Canadian Geotechnical J.; Geotechnical Testing J.; Computer and Geotechnics
 Examiner, PhD thesis from Deakin University
 Examiner, PhD thesis from the University of Sydney

McCarthy, David (Dr)
Reviewer of the following journals: Water Research, Water and Environmental Journal

Mudd, Gavin (Dr)
Reviewer of the following journals: Canadian Geotechnical J., Applied Radiation and Isotopes, Int. J. of Environment and Solid Waste Management, Atmospheric Environment, Urban Water Journal

Ranjith, P.G. (Dr)
 Reviewer, PhD Thesis from University of Queensland
 Reviewer, Grant Proposal by European Commission (Cordis)
 Reviewer, ARC Discovery Grant Applications
 Examiner, PhD thesis from the University of Melbourne

Rose, Geoff (Associate Professor)
Reviewer of the following journals: IEEE Journal of Intelligent Transport Systems; ASCE J. of Transportation Engineering; Transportmetrica, Transport Policy, Transportation Research Record, Transportation Research Part C, J. of Sustainable Transportation, Omega: Int. J. of Management Science
 Member, Editorial Board, Int. Assoc. of Travel Behaviour Research (IATBR)
 Reviewer, Research Proposal for Israel Science Foundation

Sanjayan, J.G. (Associate Professor)
Chairman, Editorial Panel, Concrete in Australia (Journal published by Engineers Australia on behalf of the Concrete Institute of Australia
 Reviewer, papers for Concrete ’09 Conference held in Sydney NSW, September
 Examiner, PhD thesis for IIT Madras, India

Sarvi, Majid (Dr)

Sun, Guangzhi (Dr)
Reviewer of the following journals: Ecological Engineering, J. of Hazardous Materials, Engineering in Life Sciences, Chemosphere, Desalination, Process Biochemistry, Environmental Pollution, CLEAN-Soil, Air and Water

Wang, Yibing (Dr)
Associate Editor, IEEE Transactions on Intelligent Transportation Systems
 Associate Editor, Int. J. of Vehicle Information and Communication Systems
 Member, Editorial Board, the Open Transportation Journal and Transportation Research Part C
 Reviewer of the following journals: Transportation Research Part C-Emerging Technologies, Transportation Research B, Transportation Research Record, The Open Transportation Journal, IEEE Transactions on Control Systems Technology, IEEE Transactions on Knowledge and Data Engineering, J. of Advanced Transportation
 Examiner, PhD defence at Delft Technical University, Netherlands, October
 Reviewer, Research proposal for the US National Science Foundation
 Reviewer, Research proposal for the Chile National Science Foundation

Wong, Bill (Dr)
 Reviewer, ARC Discovery grants
 Reviewer, ARC Fellowship, March
 Examiner, PhD thesis for the University of New South Wales, School of Civil and Environmental Engineering

Young, William (Professor)
Grant Referee, Australian Research Council
Grant Referee, Research Council of the University of Kuwait
 Member, Editorial Board, Proceedings of Transportation Engineering ICE
 Member, Editorial Board, Transport for Developing Countries Workshop, IIT(Bombay), India
Zhao, Xiao-Ling (Professor)
Member, Editorial Board, Thin-Walled Structures
Member, Editorial Board, International J. of Structural Stability and Dynamics
Member, Editorial Board, Advanced Steel Construction
Reviewer of the following journals: J. of Bridge Engineering (ASCE), Thin-Walled Structures, Engineering Structures, J. of Constructional Steel Research, Construction and Building Materials, Steel and Composite Structures, Advances in Structural Engineering, Int. J. of Fatigue, Australian J. of Structural Engineering, J. of Structural Engineering (ASCE)
Examiner, PhD Oral Defence at Ecole Polytechnique Federale de Lausanne, Switzerland
Examiner, PhD thesis for Tongji University, China

5.4 External seminars, workshops and special presentations

Al-Mahaidi, Riadh (Associate Professor)
Tri-University Workshop on Post-quake Reconstruction, Tsinghua University, China, November
Seminar presentations at Istanbul Technical University (Turkey), Mustansiyah University and American University of Sharjah (UAE)
Short course and seminar delivered at the University of Baghdad, Iraq
Short course on the use of Australian Standards in Design of Structures, delivered to 2+2 students at Central South University, China, June

Currie, Graham (Prof)
Seminar to SSIE on ‘Does the Victorian Transport Plan contribute to a sustainable future?!‘, at Engineers Australia, Melbourne, February
Seminar to Australian Labor Party Electorate Council Discussion Group, Clayton, May
Video-Conference on Collaborative Research Initiatives with University of Auckland, New Zealand
Keynote address to Prahran Electoral Conference of the Liberal Party on ‘Transport Alternatives’, March
Seminar on Sustainable Cities, Sustainable Transport, March
Presentation to the Liberal Party Policy Discussion Group, Eastern Metro Regional Electorate Council, March
Presentation to the BTRE Colloquium, BRT/LRT, Canberra, June
Presentation to the Transport and Social Inclusion Committee on ‘Climate change, transport and social inclusion’, Melbourne, August
Presentation to the Transport Policy Group of the Department of Transport on ‘ARC Project on Transport and Social Exclusion- Update’, Melbourne, August
Seminar on ‘Investigating links between transport disadvantage, social exclusion and well being in Melbourne-An update of results’, South Melbourne, October

5.3. Services to expert bodies and expert advice

Adam, Con (Dr)
Advisory member and inspector for Glued Laminated Timber Association of Australia (GLTAA)

Collins, F.G. (Dr)
Member, Expert Panel reviewing outputs from ‘Climate Change Impacts on Concrete Infrastructure’, project undertaken by the Federal Department of Climate Change and CSIRO

Currie, Graham (Prof)
Academic Member, Victorian Road-Based Public Transport Advisory Group of the Minister for Public Transport, Melbourne Victoria
Member, submission to the Federal Senate Inquiry into Public Transport Standing Committee on Rural and Regional Affairs and Transport, March
Research expert, invited to give evidence at the Federal Senate Inquiry into Public Transport Standing Committee on Rural and Regional Affairs and Transport, March
Media interview with ABC Radio National, Tony Delroy Late Show Hour, on Public Transport, April

Presentation, ‘Visioning Melbourne’s Transport Futures’, to the Committee for Melbourne –Shaping Melbourne Taskforce, May
Research Expert, Victorian Parliamentary Enquiry into Training in the Rail Industry, Faculty of Engineering submission

Fletcher, Tim (Associate Professor)
Research expert representative, Melbourne Water Waterways Advisory Committee
Chair, River Health Expert Input panel, Melbourne Water
Research expert, Barwon Water Advisory Panel

Mudd, Gavin (Dr)
Advisor on mining and groundwater issues
Environment Representative on Working Group developing two new booklets on Leading Practice for Sustainable Development – Environmental Risk Management; Monitoring Auditing and Evaluating Performance (auspiced through Commonwealth DITR)
Reviewer, Groundwater components of the Annual State of the Catchment Report for Port Philip and Westernport Catchment Management Authority
Independent environmental expert, Alligator Rivers Region Technical Committee (ARRTC), A national level committee for uranium mining research

Rose, Geoff (Associate Professor)
Media interview with ABC Radio National, The Science Show, on ‘the Future of the Car’
Panel Member, Low Emissions Vehicle Partnership Forum and Drive Day
Research Expert, Victorian Parliamentary Enquiry into Training in the Rail Industry, Faculty of Engineering submission
Presentation to the Senior Transport Management Group, Department of Transport on ‘ARC Project on Transport and Social Exclusion – Update’, Melbourne, October

Seminar on ‘Back to Basics 5’ at AITPM NSW – Keynote Speech on ‘ARC Project on Transport and Social Exclusion – Update – Implications for Public Transport in Sydney’, Parramatta, October

Daly, Edoardo (Dr)
Short course on ‘Fluid Mechanics’ for final year and postgraduate students.
Invited seminar at the ‘Centre for Modelling of Stochastic Systems’, Monash University

Fletcher, Tim (Associate Professor)
Short course on ‘Stormwater Treatment Technologies’ for industry audience, Clayton, November

Grundy, Paul (Emeritus Professor)
Tri-University Workshop on Post-quake Reconstruction, Tsinghua University, China, November

Kodikara, Jayantha (Associate Professor)
Workshop on Pipe Asset Management, Sydney, July

Mudd, Gavin (Dr)
Invited seminar, Community public meeting on Mining and Water issues in South Australia, March
Invited lecture on Sustainability, Faculty of Engineering Leadership Program, March
Special invited Public Lecture on In Situ Leach Uranium Mining, Fort Collins (Colorado), USA, August
Invited Seminar on the Environmental Impacts of Uranium Mining, Ottawa (Ontario), Canada, August
Invited Keynote Seminar for New Zealand Society for Sustainability Engineering and Science, October

Sanjayan, Jay (Associate Professor)
Presentation to Cheongju University students, Seoul, Korea, March

Ranjith, P.G. (Dr)
Presentation at Tri-University Workshop, Central South University Changsha, China, November
Presentation at Beijing Mining Technology University, Beijing, China, December

Rose, Geoff (Associate Professor)
Seminar on ‘Does the Victorian Transport Plan contribute to a sustainable future?’ for the Society for Sustainability and Environmental Engineering, Engineers Australia, Melbourne, February
Presentation on ‘Research activity of the Transport Theme of the Monash Sustainability Institute’ at the Monash University Early Career Researchers Breakfast
Transport Alternatives Seminar (Keynote Speaker), Prahran Electoral Conference of the Liberal Party, Melbourne, March
Seminar on ‘Sustainable Cities, Sustainable Transport’, Melbourne, March
Presentation to TREC Centre at the University of British Columbia, Vancouver, Canada, June
Presentation to ORTEC (Portland State University Transport Centre), Portland, USA, June
Presentation on ‘What does EcoDriver Training Achieve? Insight from a Victorian Pilot Project’, at College of Road Safety, Victoria
Presentation on ‘Implications of emerging types of private passenger vehicles’ at the University of Canterbury, Christchurch, New Zealand
Video-Conference on Collaborative Research Initiatives with University of Auckland, New Zealand

Wong, Bill (Dr)
Short course on Steel Design, delivered to 2+2 students at Central South University, Changsha, China, June
Short course on Steel Design, Shanghai, China, July
Presentation entitled ‘Structural Design of steel Structures in Fire: Comparative Study on Australian and European Practice’, at a seminar for the Association of Structural Consulting Engineers, at Box Hill TAFE, Victoria, September
Presentation at a seminar on ‘The modern method of plastic design – Quick, Economical and Painless’, for Engineers Australia, North Melbourne, August

Young, William (Professor)
Video-Conference on Collaborative Research Initiatives with University of Auckland, New Zealand

Zhao, Xiao-Ling (Professor)
Presentation at the Monash-Tsinghua Workshop on Earthquake, Beijing, China, February
Presentation to promote 2+2 Civil Program to students at Tongji University, Beijing, China, February
Presentation at the Monash-Sichuan Workshop on Earthquake, Sichuan University, Chengdu, China, February
Presentation to promote 2+2 Civil Program to students at Sichuan University, Chengdu, China, February
FRP Shortcourse, Monash, August
Tri-University Workshop on FRP Strengthening of Steel Structures, Central South University, China, November
Presentation to Tongji University students on 2+2 Civil Program, China, November
Seminar on studying civil engineering at Monash, delivered at the Careers Night, Scotch College, Melbourne
5.5 Consulting and Contract Research

Al-Mahaidi, Riadh (Associate Professor)
Consultant to Iraq Higher Education Committee, London UK

Currie, Graham (Professor)
Review of the Victorian Transport Connections program
‘Literature Review of Induced Demand’ for City of Boorondarah, April

Delbosc, Alexandra (Ms)
‘Literature Review of Induced Demand’ for City of Boorondarah, April

Mudd, Gavin (Dr)
Independent Expert reporting on Proposed Exploration Drilling and Groundwater for Alcorns & Browns v. Coal Mines Australia Ltd
Expert report for Mrs R. Horridge on Proposed Billen Cliffs Cemetery
Expert report for Gundjeihmi Aboriginal Corporation on Ranger Tailings Dam Lift to RL54m – Conceptual modelling of potential seepage rates and associated environmental aspects
Adviser, Coal seam gas in Australia, groundwater and environmental impacts
Review, Olympic Dam EIS
Member, Tailing Storage Facility Technical Working Group
Independent Expert witness for Liverpool Plains Court Case on groundwater issues associated with coal exploration

Wang, Yibing (Dr)
Research expert advising CIC Corporation, China, on real-time complete surveillance of freeway traffic

5.6 Professional development

Bouazza, Malek (Associate Professor)
Senior Management Summit, Monash University, February

Daly, Edoardo (Dr)
Graduate Certificate in Higher Education International Research Staff Exchange Scheme (IRSES), Politecnico of Turin, Italy, May

Fletcher, Tim (Associate Professor)
Outside Study Program, January to February

Hatt, Belinda (Dr)
Graduate Certificate in Higher Education

Kodikara, Jayantha (Associate Professor)
Monash University Leadership course (two modules)

Mudd, Gavin (Dr)
Outside Study Program at Int. Centre for Sustainability Engineering, University of Auckland and Institute of Environmental Studies, University of New South Wales, July-Nov

Powell, Christopher (Mr)
Contract Negotiation and new business development – Opening of the FAWB Biofiltration facility for the Kfar Saba Council and liaison with Australian/Israeli Sustainability Trade Mission, local councils and water authorities, Tel Aviv, Israel, November

Ranjith, P.G. (Dr)
Supervision Level 2 Certificate

Sun, Guangzhi (Dr)
Outside Study Program at the Chinese Northeast Institute of Geography and Agricultural Ecology, Changchun City, China, December 2009-March 2010

5.7 Conference attendance

Adam, Con (Dr)
23rd Int. Meeting of ISO/TC 165 – Timber Structures, Bordeaux, France, October

Amarasiri, Aruna (Dr)
ComGeo I, Int. Symposium on Computational Geomechanics, Juan-les-Pins, France, April

Al-Mahaidi, Riadh (Associate Professor)
15th Int. Conference on Composite Structures, Porto, Portugal, June

Asia-Pacific Conference on FRP in Structures (APRIS2009), Seoul, Korea, November

Bratieres, Katia (Ms)
6th Int. Water Sensitive Urban Design Conference (Hydropolis #3), Perth, Western Australia, May

Bouazza, Malek (Associate Professor)
Geosynthetics 2009 Conference, Salt Lake City, Utah USA, February

1st African Regional Geosynthetics Conference, Cape Town & Johannesburg, South Africa, September

TENSAR Jubilee Conference, London UK, September

Currie, Graham (Professor)
88th Annual Meeting of the US Transportation Research Board, Washington DC, USA, January

Urban Transport World Conference, Public Transit Planning in the 21st Century, Sydney, February


Australasian Transport Research Forum, Auckland NZ, September

Future City Transport 2nd Annual Conference, Melbourne, July

Melton Transport Connections Forum (keynote address), July

Transport Economics Forum on ‘ARC Project on Transport and Social Exclusion’ Update, Melbourne, September

Bus Industry Confederation National Conference on ‘ARC Project on Transport
and Social Exclusion – Update’, Hobart, October

Victorian Transport Infrastructure Summit on ‘Rethinking public transport: What more is needed for continued patronage growth?’, Melbourne, November

VCOSS Annual General Meeting on ‘ARC Project on Transport and Social Exclusion – Update’, Melbourne, November

National Conference of the Transport and Social Inclusion Committee on ‘ARC Project on Transport and Social Exclusion: Improving understanding and capturing learning’ and ‘Workshop Management’, Melbourne, November

11th Int. Conference on Competition and Ownership in Land Passenger Transport, Delft University of Technology, Delft, Netherlands, September

Daly, Edoardo (Dr)
Workshop on Developing Integrated Catchment Management Strategies for Sustainable Water Use in response to Climate Change, held in Hanoi Vietnam, June–July

Workshop related to groundwater-vegetation Research Program at the National Centre for Groundwater Research and Training, the University of Queensland, Brisbane, Qld, July

International Symposium on Integrated Catchment Management for Sustainable Water Use in response to Climate Change, held in Melbourne VIC, September

American Geophysical Union Fall Meeting, San Francisco, California, USA, December

Delbosc, Alexandra (Ms)
Australasian Transport Research Forum, Auckland NZ, September

Deletic, Ana (Professor)
Creating Water Sensitive Cities in Australia, Conference in held in Perth, Brisbane, Melbourne, Sydney and Adelaide in February

6th Int. Water Sensitive Urban Design Conference (Hydropolis #3), Perth WA, May

International Symposium on Integrated Catchment Management for Sustainable Water Use in response to Climate Change, Melbourne VIC, September

8th Int. Conf. on Urban Drainage Modelling held in Tokyo, Japan in September

Fletcher, Tim (Associate Professor)
9th Int. Conf. on Computing and Control for the Water Industry (CCWI), Sheffield, UK, September (invited Keynote Presentation)

8th Int. Conf. on Urban Drainage Modelling held in Tokyo, Japan, September

Australia-Israel Chamber of Commerce Sustainability Trade Mission to Israel 2009, Tel Aviv, Israel, November

Gates, Will (Dr)
49th Annual Meeting of the Clay Minerals Society, Billings, Montana USA, June

Grundy, Paul (Emeritus Professor)
International Disaster and Risk Conference, Chengdu, China, July

Hatt, Belinda (Dr)
Alternative Technology Association Seminar: Alternative water supply options for Melbourne, February

6th Int. Water Sensitive Urban Design Conference (Hydropolis #3), Perth WA, May

8th Int. Conf. on Urban Drainage Modelling held in Tokyo, Japan, September

Keller, Robert (Dr)
IAHR Int. Conference, Vancouver, British Columbia, Canada, August

McCarthy, David (Dr)
6th Int. Water Sensitive Urban Design Conference (Hydropolis #3), Perth WA, May

8th Int. Conf. on Urban Drainage Modelling held in Tokyo, Japan, September

AusAid-funded Workshop on ‘Integrated Catchment Management under Climate Change’, Orissa (Mumbai), India, November

Mudd, Gavin (Dr)
48th Annual Conference of Metallurgists, Canadian Metallurgical Society, Sudbury, Ontario, Canada, August

Young Earth Scientists International Congress, Young Earth Scientists Network, Beijing, China, October

Solutions for a Sustainable Planet – SSEE International Conference 2009, Society for Sustainability and Environmental Engineering, Melbourne, Victoria, Australia, November

SDIMI 2009 – 4th International Conference on Sustainable Development Indicators in the Minerals Industry, Australasian Institute of Mining and Metallurgy (AusIMM), Gold Coast, Queensland, Australia, July

Poelsma, Peter (Mr)
6th Int. Water Sensitive Urban Design Conference (Hydropolis #3), held in Perth WA in May

Ranjith, P.G. (Dr)
Underground Coal Gassification Workshop, Imperial College, London UK, September

Rose, Geoff (Associate Professor)
88th Annual Meeting of the Transportation Research Board, Washington DC, USA, January

Australian Davos Connection, Future Summit 2009, Melbourne

GHD Executive Forum, Melbourne

Interface Councils CEO Forum, Municipal Association of Victoria, Melbourne, August

Local Government National Conference, Municipal Association of Victoria, East Melbourne, August

Australasian Transport Research Forum, Auckland, NZ, September

US Institute of Transportation Engineers Conference on Transportation Engineering Education, Portland Oregon USA, September

Transport Connections Coordinators Forum on ‘Transport Connections – A Sustainable Future’ (keynote speech), Melbourne, October
Sanjayan, Jay (Associate Professor)

Int. Seminar on Improvement of Fire Resistance Performance of High Strength Concrete, Seoul, Korea, March

24th Biennial Conference of the Concrete Institute of Australia, Sydney NSW, September

Sarvi, Majid (Dr)

88th Annual Meeting of the Transportation Research Board, Washington DC, USA, January

ISTTT18 Conference, Hong Kong, China, July

Australasian Transport Research forum, Auckland NZ, September

Wong, M.B. (Dr)

9th Int. Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures, Sydney NSW, July

International Conference on Engineering Education and Research, Seoul, Korea, August

ISCM II and EPMESC XII Conference, Hong Kong and Macau, China, November-December

Wang, Yibing (Dr)

Tri-University Workshop, Central South University, Changsha, China, November-December

Young, William (Professor)

88th Annual Meeting of the Transportation Research Board, Washington DC, USA, January

Australasian Transport Research forum, Auckland NZ, September

Zhao, Xiao-Ling (Professor)

CIDECT Annual Meeting, Tampere, Finland, August

3rd Int. Forum on Advances in Structural Engineering, Shanghai, China, November

Second Asia-Pacific Conference on FRP in Structures (APFRS2009), Seoul, Korea, December

Int. Conf in Advances in Steel Structures (ICASS’09), Hong Kong, China, December