Department of Civil Engineering
Annual Report 2012
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1. HIGHLIGHTS IN 2012

Recognition of Staff Achievements

The 2012 Departmental Annual Dinner was held on 19th June. This was a change in format from that of previous years, in that the dinner encompassed: the appreciation of industry and guests who are supporting the department; the undergraduate and departmental awards; the alumnus of the year award; and also facilitated the reunion of our past alumni. Prof. Tony Wong was awarded our Alumnus of the Year for 2012 and gave an after dinner address.

Prof. Tony Wong & Prof. William Young

Professors William Young & Gary Codner were awarded Alumni of 2011 and 2010 respectively.

Congratulations to Mrs Jenny Manson, Ms Irene Sgouras and Mr Long Kim Goh on receiving their Monash University 25-year service medals in May 2012. What an achievement! Congratulations also to Jenny and Irene for serving 25 years within the Department.

Jenny Manson & Irene Sgouras

Dr Rao (Martand) Singh won the Departmental OHS Award in June 2012.

Prof. Jeff Walker & Dr Martand Singh

Congratulations to A/Prof. Jayantha Kodikara on receiving his promotion to Professor, effective 1 January 2013.

Prof. Jeff Walker & Dr Martand Singh

Congratulations to the following lecturers who were promoted to Senior Lecturer.

Prof. Xiao-Ling Zhao was awarded a Doctorate of Engineering at the University of Sydney, February 2012. Thesis title: “New Developments in Hollow Section Steel Structures” - Congratulations!

Prof. Ana Deletic won the prestigious 2012 Victoria Prize for Science & Innovation in the development and implementation of sustainable water management practices. Well done Ana!

Emeritus Professor Paul Grundy, Honorary Member of the International Association for Bridge and Structural Engineering (IABSE) and former Chair of the Australian Group of IABSE (1999-2010) won the Anton Tedesko Medal 2012, conferred by the IABSE Foundation Council, 'in recognition of his dedication to excellence in structural engineering and his role as mentor for young engineers'. The Medal was presented by Tobia Zordan, Chair of the Foundation Council, on 19 September 2012 at the Opening of the 18th IABSE Congress in Seoul. Congratulations Paul!

Prof. Jeff Walker & Irene Sgouras

Dr Wenhui Duan, Dr Barry Bai, Dr David McCarthy

Wenhui and Barry also received a Monash Researcher Accelerator (MRA) grant, well done!
A/Prof PG Ranjith won the 2012 ADC Forum “Australian Leadership Award”; the only one for Monash this year! This award aims to recognise and support the new generation of Australia’s leaders. Congratulations Ranjith!

**Staff v’s students soccer match** was held on the last working day of 2012 (21 December). The staff were victorious...again!!

Research Achievements

The department received a 5-star rating in the Excellence in Research for Australia (ERA) 2012 National Report; one of only two Australian Universities to achieve this and the only Go8 civil program in Australia to achieve this! Well done!

Congratulations to **Dr Yu (Barry) Bai** on receiving the Departmental Award for Excellence in Research at our Annual Dinner in June 2012.

Congratulations to **Dr Wenhui Duan** on winning the Future Fellowship for his project titled: “Novel cement-graphene oxide composite: understanding its composite structure via nanomechanics based modelling and experimental tests”.

**Dr Amin Heidarpour** was selected for the Australia-China Young Researchers Exchange Program 2012. He is one of only 16 people selected from Australian Universities/Research Institutes – Congratulations Amin!

Well done **Dr Daniel Viete** for receiving the very prestigious National Natural Science Foundation of China (NSFC) Foreign Scientist Fellowship Award from China.

Congratulations to **A/Prof. Jayantha Kodikara, Dr Pathmanathan Rajeev and Mr Derek Chan** for their manuscript “Ground–atmosphere interaction modelling for long-term prediction of soil moisture and temperature” which was selected as “Editor’s choice” for 2012 by NRC Research Press and the Canadian Geotechnical Journal, as a means of highlighting articles of particularly high calibre and topical importance.

The department received four ARC Discovery grants, three ARC Linkage Grants, four ARC LIEF Grants and one DECRA grant in 2012.

Congratulations to **Dr David McCarthy** and **Dr Chris Rüdiger** who each won an Australian Academy of Sciences – France-Australia Science Innovation Collaboration Fellowship (FASIC) to spend a couple of months doing collaborative research in France with cutting-edge French research institutions.

Congratulations to **Dr Samintha Perera** who was awarded a DECRA fellowship for her research into “Safe long-term storage of carbon dioxide in coal seams with enhanced methane recovery”.

Prof. Jeff Walker presents the soccer trophy to Coach Dr Majid Sarvi and Captain Mike Leach

Prof. Jeff Walker & Dr Barry Bai

Dr David McCarthy

Dr Chris Rüdiger
ITS-Monash researchers Prof. Graham Currie and Alexa Delbosc (along with co-author Dr James Reynolds) were awarded the William M. Millar best paper in public transportation from the US Transportation Research Board Annual Meeting. This is the first year that this award has been bestowed.

Prof. Xiao-Ling Zhao received the Kurobane Lecture Award at 14th International Symposium on Tubular Structures held at Imperial College London, 12-14 September 2012, in recognition of his outstanding contributions and achievements in the field of tubular structures, and his continuing encouragement to expedite and widen research activities on tubular structures.

Education Achievements

In June 2012, Dr Gavin Mudd received the 2011 Dean’s Award for Excellence in Teaching, as well as the 2012 Departmental Award for Excellence in Teaching. A fine effort Gavin, well done!

The Institute of Transport Studies (ITS Monash) is embarking on a combined Masters of Transportation Systems with Southeast University (SEU) in China. This program starts in 2013 and Dr Russell Thompson will be the program leader, assisted by Dr Terry Liu.

We had 8 PhD completions in 2012.

Dr David McCarthy was awarded the Monash Postgraduate Association Supervisor of the Year for 2012 from more than 25 nominations across the University. This is the second year in a row for Civil to take the award.

Departmental Teaching Fellows for 2012 were acknowledged at the Annual Dinner for their contribution to our teaching program.

A new Bachelor of Mining Engineering degree was approved and will commence teaching levels 1, 2 and 3 in 2013.

Events

The department held it’s bi-annual Departmental Retreat at Brighton Savoy on 28-29 November 2012, with the main outcomes being a curriculum review and the establishment of a research vision, mission and themes.
The departmental **Social Committee** was reinvigorated in 2012 and organised regular fortnightly morning teas and sporting events including cricket, badminton, and volleyball and a lawn bowling Christmas Party!

Five staff from the department attended the 2012 **Tri-University Research Workshop on Advanced Engineering**, which was hosted by Central South University (CSU) on 6-8 December 2012 in Changsha, China. In its eighth year, the workshop aims to provide a platform for Monash University, Central South University and Wuhan University of Technology (WUT) to exchange engineering research discoveries, explore innovative topics, and consolidate international partnerships in joint research and engineering education.

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**Engagement with Industry**

**Prof. Ana Deletic** visited Seoul in Korea in May 2012 as one of the convenors for a bilateral workshop on **Impacts of Climate Change on Urban Living**, which is part of the **Green Growth** linkages between the two countries. Furthermore, through Ana's Fellowship in the Australian Academy of Technological Sciences and Engineering (ATSE), she also engaged with delegates of the Indonesian Academy as well as with other official visitors at several ATSE functions throughout 2012.

Several researchers in the **Water Group** engaged with members of the urban water industry via the Cooperative Research Centre for Water Sensitive Cities (CRC for WSC), led by Prof Ana Deletic in her 2012 role as CRC Hub leader of the Melbourne node, representing Victoria, Tasmania and South Australia. These activities included “Meet the Board” sessions, executive meetings, field tours, implementation sessions and Industry Partner workshops in various states, as well as Ana's liaison with overseas contacts in Singapore, Israel, USA and many countries in Europe.
2. OUR PEOPLE

2.1 Management Committee

In 2012, the Management Committee of the Department consisted of:

Prof. Jeff Walker                  Head of Department
A/Prof. Bill Wong                  Director of Teaching
A/Prof. PG Ranjith/Dr Edoardo Daly Director of Research
Dr Yibing Wang                    Director of International Affairs
Mr Christopher Powell             Director of Resources

Meetings of the Management Committee were held monthly.

2.2 Industry Advisory Committee

The Industry Advisory Committee was created in 1999. Meetings of the Committee were held on 19th June and 21st November 2012 at the Clayton campus. The membership of the Committee was as follows:

Industry members:

Mr Colin Jordan (Chairperson) Managing Director and CEO, RACV Ltd
Mr Chris Chesterfield Chief Executive, Office of Living Victoria
Mr Murray Cullinan Executive Director ITPD, Department of Transport
Ms Ann Kollmorgen Environmental Engineering Consultant
Dr Tony Ladson                     Director, Moroka Pty Ltd
Dr Swee L Mak                      Director, Future Manufacturing Flagship, CSIRO
Dr Rory Nathan                    General Manager (Business Processes), Sinclair Knight Merz
Mr Jim Papadimitriou              Transport Services Leader, Aurecon
Mr Ian Pitcher                    Industry Director (Environment), AECOM
Dr Bronwyn Ridgway                Consultant – Environmental Engineering
Mr John Sturdy                    General Manager, Wallage Executive
Mr Geoff Taplin                   Technical Director – Transport, AECOM
Dr Brian Wrench                   Principal, Golder Associates Pty Ltd

Departmental members:

Prof. Jeff Walker                  Head of Department
A/Prof. Bill Wong                  Director of Teaching
A/Prof. PG Ranjith/Dr Edoardo Daly Director of Research
Dr Yibing Wang                    Director of International Affairs
Mr Christopher Powell             Director of Resources

2.3 Heads of Section

In 2012, the Heads of Sections were as follows:

Prof. Bill Young                   Head, Transport Group
A/Prof. Frank Collins              Head, Structures Group
A/Prof. Jayantha Kodikara         Head, Geomechanics Group
Dr Edoardo Daly                   Head, Water Group

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

The departmental Executive Committee was created in 2012 and consisted of all Professors as well as the Deputy Head of Department. Membership of the committee was as follows:

Prof. Jeff Walker (Head)  Chairperson
Prof. Malek Bouazza
Prof. Graham Currie
Prof. Ana Deletic
Prof. Geoff Rose
Prof. Bill Young
Prof. Xiao-Ling Zhao
A/Prof. Bill Wong (Deputy Head)

Meetings of the Executive Committee were held quarterly.

2.5 Occupational Health and Safety Committee

The Civil OHS Committee was created in 2008. In 2012, the membership of the committee was as follows:

Prof. Jeff Walker  Chairperson
Mr Mike Leach  Deputy Chairperson and Safety Officer
Mr Chris Powell  Deputy Safety Officer
Dr WenHui Duan
Dr Asadul Haque
Dr Rao (Martand) Singh
Mr Richard Williamson  OHS Representative
Mr Mark Taylor  Deputy OHS Representative
Ms Emily Payne  Postgraduate Representative
Mr Alastair MacLeod  Postgraduate Representative

Meetings of the Civil OHS Committee were held bi-monthly.

2.6 Research Groups

In 2012 the department operated through the following four groups:

2.6.1 Geomechanics Group

The Geomechanics Group was led by A/Prof. Jayantha Kodikara and included:

Professor Malek Bouazza, A/Prof. PG Ranjith, Dr Aruna Amarasiri, Dr Ha Bui, Dr Will Gates, Dr Asadul Haque, Dr Rebecca McWatters, Dr Pathmanathan Rajeev, Dr Dilan Robert, Dr Rao Martand Singh, Dr Daniel Viete, Mr Mike Leach, Mr Phil Stevens.

Research Strengths: CO₂ sequestration, environmental geotechnics, geo-infrastructure, geothermal energy, soil and rock stabilisation, unsaturated soils.

In 2012, Geo Group staff of Monash Civil Engineering were successful in a number of competitive grants including a Linkage Infrastructure grant to establish a state-of-the-art X-ray microscopy facility for imaging geomaterials under tri-axial loading. This facility will add to a wide array of unique equipment available in the Monash Geo Laboratory. They also partnered another successful grant led by Newcastle University on the development of a national facility for in-situ testing of soft soils. Furthermore, the group research activity was further enhanced by Dr Samintha Perera, who won a DECRA grant to work on enhanced coal bed methane recovery, and the recruitment of Dr Dilan Robert (who obtained his PhD from Cambridge University) to the Critical Pipes Project.
2.6.2 Structures Group

The Structures Group was led by A/Prof. Frank Collins and included:

Professor Xiao-Ling Zhao, A/Prof. Bill Wong, Dr Con Adam, Dr Yu (Barry) Bai, Dr Wenhui Duan, Dr Amin Heidarpour, Dr Hongbo Liu, Dr Ye Lu, Emeritus Prof. Paul Grundy (Honorary staff member), Dr Lizi Sironic.

Research Strengths: Advanced Thin-Walled Structures; FRP Composites; Non-Portland Cement based sustainable concrete alternatives; impact and blast; fire engineering; Lifetime Integrity of Structures; timber structures; structural health monitoring.

2.6.3 Transport Group (inc. Institute of Transport Studies)

The Transport Group was led by Professor William Young and included:

Professor Graham Currie, Professor Geoff Rose, Dr Marilyn Johnson, Dr Terry Liu, Dr Majid Sarvi, Dr Nirajan Shiwalokti, Dr Russell Thompson, Dr Yibing Wang, Mr John Clements, Ms Astrid de Alwis, Ms Alexa Delbosc, Mr Omid Ejtemai, Ms Pauline Forbes, Mr Bill Kilpatrick, Ms Brenda O'Keefe.

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.

2.6.4 Water Group

The Water Group was led by Dr Edoardo Daly and included:

Professor Ana Deletic, Professor Jeff Walker, Dr Peter Breen, Dr Hans de Haan, Ms Cintia Dotto, Dr Gift Dumedah, Dr Samantha Grover, Dr Belinda Hatt, Dr Rebekah Henry, A/Prof. Robert Keller (Adjunct Research Associate), Dr David McCarthy, Dr Alessandra Monerris-Belda, Dr Gavin Mudd, Dr Valentijn Pauwels, Dr Chris Rüdiger, Mr Anthony Brosinsky, Mr Hugh Duncan, Mr Peter Kolotelo, Mr Tim Lubcke, Mr Peter Poelsma, Mr Javier Neira, Ms Christelle Schang, Mr Zhehan Weng, Mr Richard Williamson, Mr Frank Winston, Mr Yaron Zinger, Mrs Louisa John-Krol.

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; life cycle assessment of water (mining, urban etc.); stochastic soil-moisture dynamics and water balance; soil-atmosphere interaction; constructed wetlands; environmental remote sensing; land surface modelling and data assimilation.

2.7 Staff List

Professors

Abdelmalek Bouazza CivIng Algiers PhD Glasgow FIEAust
Graham Currie BSc(Hons) Huddersfield MSc Cranfield PhD Monash MCIT
Ana Deletic BSc(Hons) MSc Belgrade PhD Aberdeen GradCertHighEd Monash MIWA MIAHR FIEAust FTSE
Geoffrey Rose BE(Hons) Queensland IT MSc PhD Northwestern MIEAust MITE MAITPM
Jeff Walker BE(Hons) BSc(Hons) Newcastle PhD Newcastle FIEAust
William Young BE(Hon) NSW MSc PhD Monash GradDipMgt MBA Deakin FIEAust FITE FCIT MAITPM MPA
Xiao-Ling Zhao BE ME Shanghai Jiao-Tong PhD DEng Syd EMBA NSW & Syd FIEAust FASCE FIIFC MSSRC

Associate Professors

Frank Collins BE MEngSc Syd PhD Monash MIEAust CPEng
Jayantha Kodikara BSc(Hons) Peradeniya PhD Monash FIEAust CPEng
Ranjith Pathegama Gamage BSc(Eng)(Hons) Moratuwa PhD Wollong MASCE CHARMA FIEAust MISRMI (ARC Future Fellow)
Man Biu (Bill) Wong BSc(Eng) Lond PhD NSW CEng MICE FIEAust CPEng
**Senior Lecturers**

Eduardo Daly BE ME Turin PhD Turin GradCertHighEd Monash
Asadul Haque BScEng KBIT MEng AIT PhD Wollong GradCertHE Monash MIEAust
Zhiyuan (Terry) Liu BTranspEng(Hons) SEU PhD NUS
Gavin Mudd BEnvEng(Hons) RMIT PhD VUT MSSEE MAusIMM MSEG MISIE
Valentijn Pauwels BagrEng UGent MACivEng Princeton PhD CivEng Princeton
Majid Sarvi BCivEng(Hons) Tehran MEng(Hons) IUST PhD Tokyo MJSCE MJSTETTSC MCITE
Yibing Wang BSci (EE) Sichuan ME (Control) Chongqing PhD (Control) Tsinghua

**Lecturers**

Yu (Barry) Bai BE(Struct) Tsinghua MEng(Struct) Tsinghua PhD EPFL
Ha Hong Bui BE(Hons) HCMUT MEng Rits PhD Rits
WenHui Duan BE Tianjin MEng Tianjin PhD NUS
Belinda Hatt BAppSci(Hons) RMIT PhD Monash
Amin Heidarpour BSc IUT MSc Sharif PhD UNSW
Ye Lu BE ME BUAA PhD Sydney
David McCarthy BSc BE(Hons) PhD Monash
Christoph Rüdiger BE(Hons) PhD Melbourne
Nirajan Shiwakoti BCivEng Tribhuvan MEng(Hons) Hokkaido PhD Monash

**Senior Tutor**

Elizabeth Sironic BE DIC MSc PhD Monash

**Senior Research Staff**

Constantine Adam BEEngSc MEngSc Monash PhD AIWS
Peter Breen
Will Gates BSc MSU MSc NMSU PhD Illinois
Marilyn Johnson BA(Hons) MAppSocRes PhD Monash
Bill Kilpatrick GradCert Risk Monash MRiskM Monash MRMIA
Russell Thompson BAppSc RMIT, MEngSc Monash, PhD Melb

**Research Fellows**

Aruna Amarasinghe BE (Civil)(Hons) MSc Texas Tech PhD Texas Tech
Matteo Camporese MEng UNIPD PhD UNIPD
Alexa Delbosc BA Lewis & Clark MA Harvard
Gift Dumedah BSc(Hons) KNUST MSc SFU PhD Guelph
Samantha Grover BSc BA Melb Bsc(Hons) LaTrobe PhD LaTrobe
Rebekah Henry BSc (Hons) Griffith University PhD Monash University
Hongbo Liu BE Harbin MSc Nanyang PhD Monash
Alessandra Monerris-Belda BE Valencia PhD Catalunya
Catherine Osborne
Pathmanathan Rajeev BSc Peradeniya MSc Pavia PhD Pavia
Dilan Robert BSc (Hons) UOM PhD Cambridge MiMarEST
Rao Martand Singh BE(Civil)Vyas Jodhpur MTeach(Geotech) IIT Delhi PhD Cardiff
Daniel Viete BSc(BE(Hons)) Monash PhD ANU

**Research Officers**

John Clements BCom(Hons) Dip Ed Melb MEc MAdmin Monash
Astrid De Alwis BA Melbourne GDipT&DMgmt RMIT MMktng(LogMgt) Monash
Cintia Dotto BE Monash
Omid Ejtemai DipIT Darmstadt
Pauline Forbes
Peter Kolotelo BSc, Masters
Tim Lubke BSc (Biodiversity and Conservation) Flinders
Peter Poelsma BSc (Environmental) RMIT
Christelle Schang BEng
Zhehan Weng
Roger Zou
Our People

Administrative Staff
Narelle Ayson – Executive Assistant to HOD
Tara Fry – Resources Officer
Mrs Louisa John-Krol – Personal Assistant to Ana Deletic, Administrative Officer, MW4L
Jenny Manson – Research & Postgraduate Manager
Brenda O’Keefe – Administration Manager, ITS (Monash)
Chris Powell – Director of Resources
Irene Sgouras – Undergraduate Studies Administration Manager

Technical Staff
Anthony Brosinski – Technical Officer
Zoltan Csaki – Technical Officer
Glenn Davis – Technical Officer
Jeffrey Doddrell – Technical Assistant
Peter Dunbar – Technical Officer
Long Kim Goh – Laboratory Manager
Michael Leach – Technical Officer
Kevin Nievaart – Technical Officer
Alan Taylor – Technical Officer (Stores)
Mark Taylor – Senior Technical 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 AM BCE(Hons) MEngSc Melb PhD Cantab FIEAust MISOPE CPEng

Adjunct Professors
Riad Al-Mahaidi BSc(Civil Eng)(Hons) Baghdad MSc Cornell PhD Cornell FIEAust MASCE CPEng
Tim Fletcher BForSc(Hons) Melb, PhD Melb
Masoud Motavalli PhD ETH-Zurich
R. Kerry Rowe, BE(Hons) Sydney, PhD Sydney, DEng, Sydney, FREng, FRSC, FCAE, FEIC, FACE, FIEA, FCSE, PEng
Ahmad Shayan BAgrEng, Cert Hydrology & Groundwater Eng, Post-grad Dip(Soil Sc), PhD(Soil Sc)
Chien M Wang BE(Civil)(Hons) Monash MEngSc Monash PhD Monash

Adjunct Research Associates
Sing Ki (Xavier) Choi BE(Hons) PhD GradDip Computing
Christopher Haberfield BSc Sydney BE(Civil) Sydney PhD FIAust MAGS MISRM MISSMGE
Robert John Keller BE(Hons) PhD Canterbury NZ MASCE MIEAust MIPENZ
Anthony Richard Ladson BE(Hons) Melbourne MSc Minnesota PhD Melb GradCertHighEd
Julian Peter Seidel BE(Hons) PhD MIEAust CPEng
Geoffrey Robert Taplin BE(Hons) Tas. MEngSc PhD CPEng NPR MICE MStructE MIEAust
Peter Erwin Weinmann DipIng ETH Zurich MEngSc MIEAust CPEng

2.8 Staff Changes in 2012

New Staff Members
Dr Peter Breen
Dr Matteo Camporese
Mr Omid Ejtemai
Dr Marilyn Johnson
Dr Zhiyuan (Terry) Liu
Mr Tim Lubke
Dr Valentijn Pauwels
**Promotions**

A/Prof. Jayantha Kodikara (from A/Prof to Professor)
Dr WenHui Duan (from Lecturer to Senior Lecturer)
Dr Yu (Barry) Bai (from Lecturer to Senior Lecturer)
Dr David McCarthy (from Lecturer to Senior Lecturer)

**Resignations / Departures**

Dr Aruna Amarasiri
Mrs Astrid De Alwis
Mr Hugh Duncan
Dr Catherine Osborne
Dr Rebecca McWatters
Mr Zhehan Weng

**Retirement**

Nil.

**2.8 Visitors to the Department**

The following visitors came to Civil Engineering at Monash University in 2012:

**Visiting Academics**

A/Professor Yong (Jason) Zhang, Southeast University, Nanjing, PR China, visited January – December 2012. Visit hosted by Dr Yibing Wang.

Professor Richard Bathurst, Royal Military College of Canada, visited February 2012. Visit hosted by Prof Malek Bouazza.

Professor Wolfgang Rauch, University of Innusbruck, visited January – February 2012. Visit hosted by Professor Ana Deletic.

Prof Mark Bradford, University of New South Wales visited April 2012. Visit hosted by Dr Amin Heidarpour.

A/Professor Rudeng Luo, Central South University, PR China, visited April – October 2012. Visit hosted by A/Professor Bill Wong.

Mr Shuyuan Yin, Beijing Municipal Engineering Professional Design Institute Co. Ltd, visited April – May 2012. Visit hosted by Dr Yu Bai.

Mr Yi Zheng, Tsinghua University, Beijing, PR China, visited April – May 2012. Visit hosted by Dr Yu Bai.

Mr David Hughes, American Water, visited April, 2012. Visit hosted by A/Professor Jayantha Kodikara.

A/Professor Peng Feng, Tsinghua University, Beijing, PR China, visited April – May 2012. Visit hosted by Dr Yu Bai.

Dr Matteo Camporese, University of Padova, Italy. Commenced a 2 year visit in September 2012. Hosted by Dr Edoardo Daly.

Professor Chien Ming Wang, National University of Singapore, visited May, 2012. Visit hosted by Dr Wenhui Duan.

Professor Yoshihiko Wada, Doshisha University, Kyoto, Japan, visited June 2012. Visit hosted by Dr Gavin Mudd.

Dr Wei Li, Tsinghua University, Beijing, PR China, visited September 2012. Visit hosted by Professor Xiao-Ling Zhao.

Dr Shu-qing Hao, China University of Mining and Technology, is visiting October 2012-September 2013. Visit hosted by A/Professor Jayantha Kodikara.

A/Professor Tao Xu, Dalian University, PR China, visited October 2012 – March 2013 as part of an Endeavour Fellow award. Visit hosted by A/Professor PG Ranjith.

Professor Zoran Kapelan, University of Exeter, visited October 2012. Visit hosted by Professor Ana Deletic.

Professor Peixue Jiang, Tsinghua University PR China, visited November 2012. Visit hosted by A/Professor PG Ranjith.

Professor R K Rowe, Queens University, Ontario, Canada, visited November 2012. Visit hosted by Professor Malek Bouazza.

Dr Ander Guinea Maysounave, University of New South Wales, visited November 2012. Visit hosted by Professor Ana Deletic.

Professor Serge Herendoorn, Delft University of Technology, The Netherlands, visited 3-7th December, 2012. Visit hosted by Dr Majid Sarvi.
Occupational Trainees:
Mr Christian Urich, University of Innsbruck, visited January – February 2012. Visit hosted by Professor Ana Deletic.
Mr Chen Wei, Southeast University, Nanjing, PR China, visited January 2012 – January 2013. Visit hosted by Professor Xiao-Ling Zhao.
Mr Shimizu Masaru, Koyto University, visited January 2012. Visit hosted by Dr Yu Bai.
Mr Andrea Gorrini, University of Milano-Bicocca, visited February – August 2012. Visit hosted by Dr Majid Sarvi.
Ms Anja Randjelovic, University of Belgrade, visited February – December 2012. Visit hosted by Professor Ana Deletic.

Ms Stefania Grimaldi, Politecnico Di Torino, Italy, visited February – July 2012. Visit hosted by Dr Edoardo Daly.
Mr Apoorva Jain, Institute of Technology, Banaras Hindu University, Varanasi, India, visited May-July 2012. Visit hosted by Dr Gavin Mudd.
Ms Johanna Mielke, Technische Universitat, Dortmund Germany, visited July 2013. Visit hosted by Dr Majid Sarvi.
Ms Qianqian Yu, Tongji University, PR China, visiting October 2012 – October 2013. Visit hosted by Professor Xiao-Ling Zhao.
Mr Nobutaka Hiraoka, Ritsumeikan University, Kyoto, Japan, visited November-December 2012. Visit hosted by Dr Ha Bui.
Ms Ayaka Oya, Ritsumeikan University, Kyoto, Japan, visited November-December 2012. Visit hosted by Dr Ha Bui.
3. EDUCATION

3.1 Course Offerings

The Department offers undergraduate single degrees in Civil Engineering, Environmental Engineering, and Infrastructure Engineering and Management (the latter in teach-out mode), 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 Science, and Bachelor of Engineering/Bachelor of Architectural Design.

The Department offers two postgraduate coursework degrees via distance education (Masters) at Clayton Campus: one in Infrastructure Engineering and Management, and the other in Transport and Traffic.

3.2 Undergraduate scholarships and prizes

Scholarships (Faculty)

Golder Associates Scholarship

Keith Rix Scholarship (presented by Leighton Contractors)

Winner: Sanel Cevro

Traffix Group Scholarship:
Level 2 (partly funded by Mirabito family)

Andrei Khaidurov receives his prize from Josy and John Mirabito

Traffix Group Scholarship: Level 3

Nathan Woolcock presents prize to Wilson Foo
Prizes (Faculty)

Civil Contractors Federation presents
The Ian Jacka Award

Prize winner Matthew Glowaski receives his award

GHD Civil Engineering Award Prize
(top Level 4 graduate)

Prize winner Anna Lintern

Golder Associates Prize

Darren Watt presents prize to Louis King

The Geofabrics Pty Ltd Prize

John Goumas presents prize to Joshua Tail, Simon Roberts and Louis King. David Blamey absent
Prizes (Departmental)

Level 1 Prizes

Highest achieving single degree student commencing Civil Engineering in 2011, Average 92%

Highest achieving double degree student commencing Civil Engineering in 2011, Average 92%

Level 2 Prizes

Railand Prize for Water Engineering (Best overall performance in 2nd Year Water Supply CIV2263)

Coffey Geotechnics Award for Geo Engineering CIV2242
Level 2 Prizes cont.

SRIA Prize for Concrete Structures
(for outstanding achievement in reinforced concrete design CIV2226)

A/Prof. Frank Collins presents prize to winners
Mitchell Hawthorn & Xue Le

Level 3 Prizes

Australian Steel Institute Prize (Greatest proficiency in the field of steel structures CIV3221)

Michael Simmons presents prize to Stefan Sorensen

Douglas Partners Prize for Geomechanics
(Greatest proficiency at 3rd level in geomechanics units CIV3247 & CIV3248)

Michael Broise presents prize to Eamon Lai

GHD Highway Design Prize (to the group who submitted the best highway design project in CIV3283)

Steve Young presents prize to winners Langduan Huang, Miao Jin, Ze Meng & Huanzhang Shi
**Level 3 Prizes cont.**

Railand Prize for Urban Water Systems  
(Best overall performance in CIV3264 Urban Water & Wastewater Systems)

![A/Prof. Bob Keller presents prize to Eamon Lai](image)

**Level 4 Prizes**

Civil Engineering Vacation Work Prize

![A/Prof. Bill Wong presents prize to Jack Theodorou](image)

Foundation Industry Prize for Soil Engineering (Best overall result in Soil Engineering CIV4249)

![Dr Asadul Haque presents prize to Louis King](image)

Foundation Specialists Prize (Best final year project in geomechanics)

![Ben Collingwood presents prize to Priscilla Kumar](image)
Level 4 Prizes cont.

GHD Prize in Water Engineering
(Greatest proficiency in the water engineering subjects at Level 4)

Steve Young presents prize to Narelle Hahn

Richardson Prize in Transport (Greatest proficiency in one transport elective and transport final year project)

Prof. Bill Young presents prize to Damien Georgopolous

Thiess Prize for Civil Engineering Design
(Group who submitted the best design in Civil Engineering Practice 4 CIV4212)

John Calcinotto (L) and Anthony Moran (R) present prize to award winners Matthew Cheong, Bernard Guevera, Nathan Benbow & Dean Spencer (absent)

Traffix Group Prize (Greatest proficiency in transport engineering)

Don Robertson presents prize to Dimuth Gammampila
3.3 Graduating Class of 2012 (Undergraduate students)

Bachelor of Engineering (Civil)
Jizhou Jiang
Subanu Maheswaran
Donn Ng Hsien Wang
Julian Chung Yang Wong

Bachelor of Engineering (Civil) with Honours
Joseph Au
William Barlow
Darcy Bourke
Matthew Brereton
Daniel Brodgen
Sanel Cevro
Stephanie Chau
Jonathan Cheah
Matthew Cheong
Brent Chisholm
Alison Corcoran
Michael Crowley
Dusha Dayananda
Nathan Delaney
Dean Denny
Trent Ekanayake
Liam Fetherston
Christophe Feuillye
Eliza Gibbs
Matthew Gourley
Stephen Hicks
Daniel Jarman
Mayank Khanna
Andrew Koay Yi Jie
Michael Lisitsa
Rui Luan
Robert McIllwraith
Reece Paulzen
William Rule
Robert Ryan
Timothy Slavin
Stefan Sorensen
Lucas Stewart
David Tran
Anawil Vanavichai
Andrew Young
Jonathan Zhong-Shen Yu

Bachelor of Arts and Bachelor of Engineering in the field of Civil Engineering
Matthew Boys

Bachelor of Arts and Bachelor of Engineering (Hons) in the field of Civil Engineering
Andrew Shi-Leon Chia
Samantha Gelfand
James Martyn

Bachelor of Commerce and Bachelor of Engineering (Hons) in the field of Civil Engineering
Christopher Acton
Tim Blackburn
Nicholas Brown
James Dear
Andrew Dick
Bryce Fryar
Nathan Green
Chathurangi Jayamuni
Nikhil Kant
Vincent Lieu
Christopher Longden
Sean McDonnell
Peter McLachlan
Ravi Moorthy
Courtney Neville
Timothy Powell
Avinash Srinivasan
Alexander Tarulli
Nathan Taylor
Kate Whillance
Michael Wilson
Yiu Sun Eugene Wong
Rebecca Young

Bachelor of Science and Bachelor of Engineering (Hons) in the field of Civil Engineering
Kelvin Yik-Him Cheuk
Kristina Sovane

Bachelor of Environmental Engineering
Tatjana Bunge
Zheng Gu

Bachelor of Environmental Engineering (with Honours)
Duncan Blackburn
Naim Daliri Milani
Andre Henry
Melanie Impey
Laura McCann
Brett McKay
Rachel Meinig
Stephen Northey
Ajit Padbidri
Tyrone Thomas
Karin Wallin
Cameron Wilson
3.4 2+2 Program

Eleven students from Central South University and Tongji University in China joined us to do a 2+2 program in Civil and Environmental Engineering at Monash in 2012. This is the first time we received students for a 2+2 program in Environmental Engineering.
4. **RESEARCH**

4.1 **Research projects undertaken in 2012**

**Geotechnical Engineering**

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<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>Bouazza/ Haque</td>
</tr>
<tr>
<td>Research into geosequestration of carbon dioxide (CO2), including</td>
<td>Ranjith</td>
</tr>
<tr>
<td>geomechanical behaviour due to the stored supercritical CO2,</td>
<td>Ranjith</td>
</tr>
<tr>
<td>formation and swelling behaviour of rock media, migration of CO2 due to</td>
<td>Ranjith</td>
</tr>
<tr>
<td>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>Deep geothermal in Latrobe Valley region</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</td>
<td>Ranjith</td>
</tr>
<tr>
<td>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>Laterally loaded piles (AH): Lateral load capacity of piles socketed into mudstone</td>
<td>Haque</td>
</tr>
<tr>
<td>Uplift capacity of piles socketed into mudstone</td>
<td>Haque</td>
</tr>
<tr>
<td>Filtration behaviour of cohesionless soils under cyclic loading condition</td>
<td>Haque</td>
</tr>
<tr>
<td>Numerical modelling on infilled joints</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 ASS</td>
<td>Haque</td>
</tr>
<tr>
<td>Microstructural and mineralogical development in treated ASS</td>
<td>Haque</td>
</tr>
<tr>
<td>Improvement of ASS by mixing biochar-slag</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>
</tbody>
</table>
### Critical Pipes Project
- Pipe failure mechanisms, pipe failure prediction, intelligent pipe monitoring
- Soil compaction modelling - Fundamental and applications
- Particle flow and compaction analysis
- Pipe failures due to ground movement in reactive soils
- Axial response of seabed pipelines
- Incorporation of climate influence into road pavement design
- Use of thermal imager for civil engineering applications
- Climate change effects on geo infrastructure
- Use of optical fibres for pipe monitoring
- Numerical modelling of large deformation and flow failure of geomaterials
- Mesh-free approaches for computational geomechanics
- Soil constitutive modelling
- Rainfall induced catastrophic slope failures and landslides
- Multiphase flow through porous media
- Multi-phase flow modelling
- Riverbank failure and erosion
- Modelling of soil-structure interaction considering large deformation
- Modelling of granular and powder flows
- Characteristics of lunar soil under partial gravity condition
- Interaction of saline leachates with bentonites
- Interaction of alkaline brines with bentonites
- Improving bentonite formulations with green-chemistry synthesized materials

### Structural Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glulam design based on lamination grades and the use of mill shorts</td>
<td>Adam</td>
</tr>
<tr>
<td>Quality control procedures for engineered wood products</td>
<td>Adam</td>
</tr>
<tr>
<td>Evaluation of racking capacity to resist wind loads of timber walls</td>
<td>Adam</td>
</tr>
<tr>
<td>fitted with OSB panels</td>
<td>Adam</td>
</tr>
<tr>
<td>Suitability of oriented strand board for domestic flooring applications</td>
<td>Adam</td>
</tr>
<tr>
<td>in Australia</td>
<td>Adam</td>
</tr>
<tr>
<td>Investigate control of in-situ termite and decay protection and control</td>
<td>Adam</td>
</tr>
<tr>
<td>using microwave technologies</td>
<td>Adam</td>
</tr>
<tr>
<td>Recycled plastic pallets performance at elevated temperature</td>
<td>Adam</td>
</tr>
<tr>
<td>Performance of imported adjustable steel racking</td>
<td>Adam</td>
</tr>
<tr>
<td>Composite recycled plastic-bamboo products for structural application</td>
<td>Adam</td>
</tr>
<tr>
<td>Comparison study on finger joints bond durability under wet conditioning,</td>
<td>Adam</td>
</tr>
<tr>
<td>Purbond/Switzerland</td>
<td>Adam</td>
</tr>
<tr>
<td>Performance of Durafloor under concentrated loads</td>
<td>Adam</td>
</tr>
<tr>
<td>Quality control procedures for EWP s</td>
<td>Adam</td>
</tr>
<tr>
<td>Durability of isocyanate-based adhesives in engineered wood products</td>
<td>Adam</td>
</tr>
<tr>
<td>Development and evaluation of returnable plastic container products</td>
<td>Adam</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<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>Bond characteristics between steel members and carbon fibre reinforced polymer ‘CFRP’ composites</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>Performance of FRP retrofitted concrete structures under thermal loading</td>
<td>Zhao/Wong</td>
</tr>
<tr>
<td>Fatigue performance of steel joints bonded with CFRP fabrics</td>
<td>Zhao/Al-Mahaidi</td>
</tr>
<tr>
<td>Interaction of carbon nanotubes and cement particles</td>
<td>Collins/Duan</td>
</tr>
<tr>
<td>Corrosion prediction modelling of reinforced concrete port structures</td>
<td>Collins</td>
</tr>
<tr>
<td>Cathodic prediction of reinforced concrete marine structures</td>
<td>Collins</td>
</tr>
<tr>
<td>Improvement concrete durability by microbiological pore filling of concrete</td>
<td>Collins</td>
</tr>
<tr>
<td>Durability of vegetated walls and roofs</td>
<td>Collins</td>
</tr>
<tr>
<td>Fire performance of blended cement concrete</td>
<td>Collins</td>
</tr>
<tr>
<td>Fire performance of geopolymers</td>
<td>Collins</td>
</tr>
<tr>
<td>Fire performance of alkali-activated slag concrete</td>
<td>Collins</td>
</tr>
<tr>
<td>Enhanced fire resistance of structures using shape memory alloys</td>
<td>Wong</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 in dual tubes</td>
<td>Heidarpour</td>
</tr>
<tr>
<td>Performance of FRP retrofitted concrete structures under thermal loading</td>
<td>Heidarpour</td>
</tr>
<tr>
<td>Behaviour of steel and composite beam-to-column connections subjected to post-earthquake fire</td>
<td>Heidarpour</td>
</tr>
<tr>
<td>Steel and composite structures subjected to blast loading: A non-discretisation analysis approach</td>
<td>Heidarpour</td>
</tr>
<tr>
<td>Behaviour of functionally graded material beams at elevated temperatures</td>
<td>Haque</td>
</tr>
<tr>
<td>Innovative fabricated sections subjected to extreme actions</td>
<td>Heidarpour/Zhao</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>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/Al-Mahaidi/ Duan</td>
</tr>
<tr>
<td>Fatigue performance of rolled steel-cast steel butt welded joints</td>
<td>Zhao</td>
</tr>
<tr>
<td>Durability of FRB-Steel System</td>
<td>Zhao/Bai</td>
</tr>
<tr>
<td>Axial interaction between subsea pipeline and seabed</td>
<td>Kodikara/Xiao</td>
</tr>
<tr>
<td>Integration of life cycle performance and performance based design</td>
<td>Bai</td>
</tr>
<tr>
<td>Composite action in strengthening of laminated glass fin</td>
<td>Bai</td>
</tr>
<tr>
<td>Durability of structural adhesives and adhesively-bonded structures</td>
<td>Bai</td>
</tr>
<tr>
<td>Freeforming structural design and construction</td>
<td>Bai</td>
</tr>
<tr>
<td>Modular GFRP sandwich assembly for floor or façade applications</td>
<td>Bai</td>
</tr>
<tr>
<td>FRP tubular structures</td>
<td>Bai</td>
</tr>
</tbody>
</table>
## Transportation Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>The road ahead – improving bus safety in Victoria (Transport Safety Victoria)</td>
<td>Kilpatrick</td>
</tr>
<tr>
<td>A systemic model to underpin enhanced management of powered-two-</td>
<td>Rose/McLure/Thompson</td>
</tr>
<tr>
<td>wheelers as part of a safe, sustainable transport system</td>
<td></td>
</tr>
<tr>
<td>A model of a transport research organisation</td>
<td>Shackleton/Young</td>
</tr>
<tr>
<td>Multiaxel loading of infrastructure</td>
<td>Moffat/Young</td>
</tr>
<tr>
<td>Modelling the safety of intersections</td>
<td>Sobhani/Archer/Young/Sarvi</td>
</tr>
<tr>
<td>Network connectivity for VANETs in urban roads</td>
<td>Wang</td>
</tr>
<tr>
<td>Real-time freeway traffic state estimation under traffic flow inhomogeneity</td>
<td>Wang</td>
</tr>
<tr>
<td>A joint state-parameter estimation mechanism for real-time freeway traffic surveillance</td>
<td>Wang</td>
</tr>
<tr>
<td>Freeway travel time prediction</td>
<td>Sin/Wang/Rose</td>
</tr>
<tr>
<td>An innovative approach to variable speed limit control on freeways</td>
<td>Wang</td>
</tr>
<tr>
<td>Bulk traffic queuing systems with balking and reneging</td>
<td>De Alwis</td>
</tr>
<tr>
<td>Problems of governance for mutual recognition of bus and coach operator accreditation in Australia</td>
<td></td>
</tr>
<tr>
<td>Optimising the design and implementation Public Transport priority initiatives</td>
<td>Currie/Sarvi/Hounsell/Kinnear</td>
</tr>
<tr>
<td>Insight from early adopters of E-bikes</td>
<td>Rose in conjunction with Professor Dill, Portland State University</td>
</tr>
<tr>
<td>Impacts of weather on cyclist travel behaviour</td>
<td>Ahmed/Rose/Jacob in conjunction with Professor Figliozzi, Portland State University</td>
</tr>
<tr>
<td>Freight network performance indicators</td>
<td>Thompson</td>
</tr>
<tr>
<td>Exploring state-of-the-art light rail: Lessons from France</td>
<td>Currie</td>
</tr>
<tr>
<td>Innovative urban traffic congestion solutions: optimising roadspace using networks of multi-class priority</td>
<td>Sarvi/Currie/Wallace</td>
</tr>
<tr>
<td>Experience with development of off-peak public transport services review</td>
<td>Currie</td>
</tr>
<tr>
<td>Department of Transport Victoria; Before and after assessment of the impact of removing setback filter turns on safety and operations performance on Lonsdale Street bus lanes</td>
<td>Currie/De lbosc</td>
</tr>
<tr>
<td>Impact of the 2012 Olympic Games on travel and business in London</td>
<td>Currie</td>
</tr>
<tr>
<td>Using innovative online focus groups to understand driving and travel of young people</td>
<td>Delbosc/Currie</td>
</tr>
<tr>
<td>Exploring the influence of transport on young people’s autonomy and well-being</td>
<td>Delbosc/Vella-Brodrick</td>
</tr>
<tr>
<td>An innovative approach to model crowd panic in complex scenarios</td>
<td>Shiwakoti</td>
</tr>
</tbody>
</table>
## Water / Environmental Engineering

<table>
<thead>
<tr>
<th>Projects</th>
<th>Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towards operational monitoring of key climate parameters from synthetic aperture radar</td>
<td>Walker/Lowell/Milne/Ge/Hacker</td>
</tr>
<tr>
<td>National Ground Centre for Groundwater Research and Training</td>
<td>Daly</td>
</tr>
<tr>
<td>Greenhouse gas emissions from engineered urban green spaces</td>
<td>Daly</td>
</tr>
<tr>
<td>Sinks, sources and processes of faecal contamination in the Yarra River Estuary</td>
<td>McCarthy/Deletic</td>
</tr>
<tr>
<td>Cities as Water Supply Catchments Program (Project 1 parts of Project 4 &amp; 8)</td>
<td>Deletic/McCarthy/Fletcher/Hatt</td>
</tr>
<tr>
<td>Developing DAnCE for water model</td>
<td>Deletic/Brown/Tapper/McCarthy</td>
</tr>
<tr>
<td>Turning rain into food-the rain water vegetable garden</td>
<td>Fletcher/McCarthy</td>
</tr>
<tr>
<td>A new generation flood forecasting system using observations from space</td>
<td>Western/Ryu/Walker et al</td>
</tr>
<tr>
<td>Exploring social innovations in urban water systems with a novel modelling approach</td>
<td>Deletic et al</td>
</tr>
<tr>
<td>Sources sinks and processes of faecal contamination in urban estuaries; a case study of the lower Yarra River Estuary</td>
<td>McCarthy/Deletic/Osborne</td>
</tr>
<tr>
<td>Towards global water and energy balance monitoring using GCOM-W1 in the Australian Murray-Darling Basin</td>
<td>Walker/Rüdiger/Beringer/Daly</td>
</tr>
<tr>
<td>The Murrumbidgee core validation site for SMAP</td>
<td>Walker/Rüdiger</td>
</tr>
<tr>
<td>SMOS hydrology study</td>
<td>Pauwels et al</td>
</tr>
<tr>
<td>Capacity training for sustainable urban water management in Vanuatu</td>
<td>Deletic/Brown</td>
</tr>
<tr>
<td>Demonstrating capability for stormwater harvesting in Israeli Cities</td>
<td>Deletic/Zinger/Brenner/McCarthy/Deletic/Breen</td>
</tr>
<tr>
<td>Understanding the role of vegetation in nitrogen removal by biofiltration</td>
<td>Fletcher/Hatt/Cook/Deletic/Read/Cartwright</td>
</tr>
<tr>
<td>Peak minerals</td>
<td>Mudd</td>
</tr>
<tr>
<td>DSEWPC best practice EIA review</td>
<td>Mudd</td>
</tr>
<tr>
<td>Monitoring of above-ground vegetation biomass using multi-spectral observations</td>
<td>Rüdiger/Walker</td>
</tr>
<tr>
<td>Monitoring of the Kangaroo Wetlands</td>
<td>Kolotelo/McCarthy/Deletic</td>
</tr>
</tbody>
</table>

### 4.2 Research grants and income

Research Funding for 2012 was as follows:

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Project Title</th>
<th>$ Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr W P Gates et al</td>
<td>Advanced nanocomposites for enhanced containment of Hyper-Saline Leachate</td>
<td>96,905</td>
</tr>
<tr>
<td>Prof X-L Zhao et al</td>
<td>Retrofit of steel connections subject to fatigue load by utilizing CFRP and modified epoxy structural adhesives</td>
<td>56,138</td>
</tr>
<tr>
<td>A/Prof PG Ranjith</td>
<td>Civil participant on grant awarded to A/Prof J Sanjayan et al from Swinburne University of Technology</td>
<td>29,931</td>
</tr>
<tr>
<td>A/Prof F Collins et al</td>
<td>Tensile enhancement of cements utilising carbon nanotubes to create stronger, lighter, more ductile and easier-to-build structures</td>
<td>94,935</td>
</tr>
<tr>
<td>Prof A Bouazza</td>
<td>Improved predictions of greenhouse gas transfers in landfill composite liner covers containing geomembrane defects</td>
<td>61,180</td>
</tr>
<tr>
<td>Investigators</td>
<td>Project Title</td>
<td>$ Awarded</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>A/Prof J Kodikara</td>
<td>Advancement of cohesive crack approach to model shrinkage and load induced cracking in multi-phase soils</td>
<td>89,661</td>
</tr>
<tr>
<td>Dr A Heidarpour</td>
<td>Unified analysis of steel and composite frame structures subjected to static thermal, earthquake and blast loading</td>
<td>33,283</td>
</tr>
<tr>
<td>Prof X-L Zhao</td>
<td>Durability of carbon fibre reinforced polymer (CFRP) strengthened steel structures against environment-assisted degradation (UNSW)</td>
<td>116,450</td>
</tr>
<tr>
<td>A/Prof F Collins</td>
<td>Cementitious gel: the missing link in understanding the ageing of built infrastructure</td>
<td>124,617</td>
</tr>
<tr>
<td>Dr M Sarvi et al</td>
<td>Innovative urban traffic congestion solutions: optimising road space using networks of multi-class priority lanes</td>
<td>98,655</td>
</tr>
<tr>
<td>Prof A Bouazza et al</td>
<td>An experimentally-validated thermo-hydro-mechanical theory for waste containment lining systems (in association with Sydney Uni)</td>
<td>70,232</td>
</tr>
<tr>
<td>ARC Linkage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prof T Fletcher</td>
<td>Can dispersed, catchment scale, urban stormwater retention restore stream ecosystems? (in association with Melb Uni)</td>
<td>12,003</td>
</tr>
<tr>
<td>Prof J Walker</td>
<td>A new paradigm for improved water resource management using innovative water modelling techniques</td>
<td>96,951</td>
</tr>
<tr>
<td>Prof G Currie</td>
<td>Optimising the design and implementation of public transport</td>
<td>69,334</td>
</tr>
<tr>
<td>A/Prof PG Ranjith et al</td>
<td>Influence of scale effect on the strength of rock mass for the better prediction of slope stability in large open-cut mines</td>
<td>156,124</td>
</tr>
<tr>
<td>Dr D McCarthy et al</td>
<td>Sources, sinks and processes of faecal contamination in urban estuaries: a case study of the Lower Yarra River Estuary</td>
<td>239,957</td>
</tr>
<tr>
<td>Dr M Sarvi et al</td>
<td>Innovative tools to improve station design and management of crowds in emergency and panic conditions</td>
<td>36,347</td>
</tr>
<tr>
<td>Prof A Bouazza et al</td>
<td>Turning pile foundations into sources of renewable energy: addressing remaining geotechnical challenges</td>
<td>51,924</td>
</tr>
<tr>
<td>Prof T Fletcher et al</td>
<td>Understanding the role of vegetation in nitrogen removal by biofiltration</td>
<td>29,111</td>
</tr>
<tr>
<td>Prof G Rose</td>
<td>A systematic model to underpin enhanced management of powered two wheelers as part of a safe, sustainable transport system</td>
<td>121,309</td>
</tr>
<tr>
<td>Dr C Adam</td>
<td>Non-destructive evaluation of termite and decay damaged to timber-in- service (in association with Melb Uni)</td>
<td>10,000</td>
</tr>
<tr>
<td>ARC Future Fellowships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/Prof PG Ranjith</td>
<td>An assessment of carbon dioxide storage capacity of water bearing sedimentary basins</td>
<td>188,508</td>
</tr>
<tr>
<td>Dr WH Duan</td>
<td>Novel cement-graphene oxide composite: Understanding its composite structure via nano-mechanics based modelling and experimental tests (Fellowship)</td>
<td>66,791</td>
</tr>
<tr>
<td>Dr WH Duan</td>
<td>Novel cement-graphene oxide composite: understanding its composite structure via nanomechanics based modelling and experimental tests</td>
<td>25,962</td>
</tr>
<tr>
<td>ARC SRI</td>
<td></td>
<td></td>
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<tr>
<td>Dr E Daly</td>
<td>National Centre for groundwater Research and Training - Program 4: Groundwater-Vegetation-Atmosphere Interactions (in association with Flinders Uni)</td>
<td>97,275</td>
</tr>
<tr>
<td>ARC DECRA</td>
<td></td>
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<tr>
<td>Dr Y Bai</td>
<td>Free-forming and function-integrated composite structures for future green building construction</td>
<td>126,539</td>
</tr>
<tr>
<td>ARC LIEF</td>
<td></td>
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<tr>
<td>A/Prof PG Ranjith et al</td>
<td>An advanced macro-scale, hydro-thermo-mechanical testing chamber for sustainable deep geological applications</td>
<td>940,000</td>
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<tr>
<td>CSIRO Flagship Collaborative Research Program</td>
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<tr>
<td>Dr C Adam</td>
<td>Forest &amp; Wood Products Research and Development Group (FWPA) - Glulam Design</td>
<td>25,000</td>
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<tr>
<td>Dr G Mudd</td>
<td>CSIRO Commodity Futures (via UIS)</td>
<td>50,000</td>
</tr>
<tr>
<td>Prof J Walker</td>
<td>River flow</td>
<td>31,500</td>
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<tr>
<td>Australian Antarctic Division</td>
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<tr>
<td>Prof A Bouazza</td>
<td>Assessment of the performance of geomembranes and</td>
<td>72,005</td>
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<tr>
<td>Investigators</td>
<td>Project Title</td>
<td>$ Awarded</td>
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<td></td>
<td>geocomposite liners for short to long term containment of contaminated soil in the Antarctic</td>
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<tr>
<td>Centre for Water Sensitive Cities</td>
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<tr>
<td>Prof A Deletic</td>
<td>P8 - Urban Design - Local Government</td>
<td>163,620</td>
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<tr>
<td>AusAid</td>
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<tr>
<td>Prof A Deletic</td>
<td>Transitioning to sustainable urban water management in developing countries of the Pacific Region</td>
<td>40,480</td>
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<td>Dr G Mudd</td>
<td>Dept of Sustainability, Environment, Water Population and Communities</td>
<td>7,872</td>
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<tr>
<td>A/Prof J Kodikara</td>
<td>Melbourne Water - Smart Sensors</td>
<td>20,000</td>
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<tr>
<td>A/Prof F Collins</td>
<td>AECOM - Associated with ARC Linkage Award</td>
<td>15,000</td>
</tr>
<tr>
<td>A/Prof F Collins</td>
<td>Maunsell/Geelong Port - Associated with ARC Linkage Award</td>
<td>10,000</td>
</tr>
<tr>
<td>Dr B Hatt</td>
<td>Melbourne Water - Bayan Reserve</td>
<td>33,468</td>
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<tr>
<td>Prof A Deletic</td>
<td>CWSC Prog 1 Sustainable Technology - DIIRD</td>
<td>432,297</td>
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<tr>
<td>Prof T Fletcher</td>
<td>CWSC P4 Stream - Eco State Gov</td>
<td>195,409</td>
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<tr>
<td>Prof T Fletcher</td>
<td>CWSC P4 Stream - Eco DIIRD</td>
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<tr>
<td>Prof T Fletcher</td>
<td>Sustainability Vic</td>
<td>32,301</td>
</tr>
<tr>
<td>Prof W Young</td>
<td>Public Transport Chair (Vic Government)</td>
<td>56,498</td>
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<tr>
<td>Prof W Young</td>
<td>Transport Safety - Victoria</td>
<td>95,600</td>
</tr>
<tr>
<td>Prof G Currie</td>
<td>Dept of Transport (Vic)</td>
<td>15,000</td>
</tr>
<tr>
<td>Dr R Thompson</td>
<td>VIC Roads</td>
<td>21,800</td>
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<tr>
<td>Prof A Bouazza</td>
<td>Sustainability Vic</td>
<td>40,000</td>
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<tr>
<td>Prof J Walker</td>
<td>DPI (Vic) Partner re Arc Linkage</td>
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<td>Prof G Currie</td>
<td>VicRoads (Industry component to ARC Linkage award)</td>
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<td>Dr D McCarthy</td>
<td>Vic Smart Water Fund</td>
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<tr>
<td>Prof T Fletcher</td>
<td>Dept Water (WA) (Associated with ARC Linkage award)</td>
<td>18,172</td>
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<td>Prof T Fletcher</td>
<td>Melbourne Water (Associated with ARC Linkage Award)</td>
<td>18,172</td>
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<td>Prof A Deletic</td>
<td>Melbourne Water (Associated with ARC Linkage Award)</td>
<td>51,325</td>
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<td>Prof G Rose</td>
<td>TAC and others (Associated with ARC Linkage award)</td>
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<td>Collier 2012 Charitable Fund</td>
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<tr>
<td>Dr WH Duan</td>
<td>Equipment for speed mixer</td>
<td>3,000</td>
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<tr>
<td>Prof A Bouazza</td>
<td>14 stainless steel geomembrane diffusion cells, with Viton o-rings and PTFE septa</td>
<td>3,000</td>
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<tr>
<td>Dr C Rüdiger</td>
<td>Weather Station</td>
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<tr>
<td>Dr Y Bai</td>
<td>Ultrasonic flaw detector</td>
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<td>Scholarship Funding</td>
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<td>Prof G Currie</td>
<td>METLINK for Civil PhD candidate</td>
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<td>Industry Funding</td>
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<td>Prof A Bouazza</td>
<td>Golder Associates</td>
<td>37,000</td>
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<td>Dr D McCarthy</td>
<td>Shell Corp Australia</td>
<td>32,000</td>
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<tr>
<td>Prof G Currie</td>
<td>PIV Review</td>
<td>58,661</td>
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<tr>
<td>Dr C Adam</td>
<td>Glued Laminated Timber Assoc Aust</td>
<td>15,000</td>
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<tr>
<td>Dr C Adam</td>
<td>HRD Singapore OSB Panels</td>
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<tr>
<td>A/Prof J Kodikara</td>
<td>Critical Pipes: Research Program - Utilities</td>
<td>20,000</td>
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<tr>
<td>A/Prof J Kodikara</td>
<td>Critical Pipes: Research Prog - International Partnership</td>
<td>96,320</td>
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<tr>
<td>Prof J Walker</td>
<td>Chinese Ministry of Science</td>
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<td>International Funding</td>
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<tr>
<td>Prof J Walker</td>
<td>Japanese Aerospace Exploration Agency</td>
<td>113,044</td>
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<tr>
<td><strong>Total income</strong></td>
<td></td>
<td><strong>$5,543,826</strong></td>
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</table>
4.3 Research activity in Centres (ITS, MW4L, MPR)

ITS (Institute of Transport Studies)
The research activities of ITS (Monash) continued to grow in 2012 as evidenced by the 41 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 covering areas of traffic safety, public transport use, sustainable transport, freeway operations, freight performance, motorbike travel and bicycle travel. Reflecting the growth in the research activities, ITS (Monash) has continued to attract a large number of students to its research program.

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

Monash Water for Liveability (formerly the Centre for Water Sensitive Cities)
The Centre was established to transform communities to live harmoniously and resiliently with the natural water environment. Following the CRC for Water Sensitive Cities Commonwealth grant ($30 million cash + $30 million in-kind), the Centre became Monash Water for Liveability. It delivered on Cities as Water Supply Catchments programs, contributed to government reports, welcomed delegates from countless nations, presented 20+ conference papers (e.g. 7th International Conference on Water Sensitive Urban Design, Melbourne and 9th International Conference on Urban Drainage Modelling, Belgrade), participated in the International River Symposium, Melbourne Water Research & Development Forum, Stormwater Harvesting training and CRC Industry Partner & Research Workshops, and importantly, published 12 articles in top international journals.

Representation included consultation with National Recycled Water Regulators Forum; Urban Water Stakeholder Reference Panel (under Federal Dep’t of Sustainability, Environment, Water, Population and Communities); Water Forum Committee of the Australian Academy of Technological Sciences and Engineering (ATSE); and chairing the Technical Review Committee of Best Practice Management Guidelines (BPEM) with the EPA, Office of Living Victoria and Melbourne Water. Media representation included The Age newspaper and ABC radio.

International engagement included EU PREPARED (DIISR) developing DanCE4Water model $260k + in-kind; AUSAID in Vanuatu; developing Israel's first bio-filter with the Jewish National Fund; collaboration with The Flood Resilience Group from the Netherlands; Pennine Water Group, UK; Urban Drainage as Key Infrastructures in Cities and Towns, a Serbian National Project; and lectures in many nations including Greece & Denmark, about water sensitive cities. MW4L director Prof Deletic chaired an ATSE delegation on Sustainability on Urban Design to Korea.

Further details about the Centre can be found at its website:

Monash Pipes Research (Critical Pipes Project)
In 2012, Monash Civil Engineering Staff continued with their research activities into on-shore and off-shore pipelines. This project commenced in 2011 and was a partnership between seven local water utilities (Sydney Water, Melbourne Water, Water Corporation, City West Water, South East Water, Hunter Water, South Australia Water) and two major international partners (Water Research Foundation and UK Water Industry and Research). The research is led by Monash Civil Engineering (A/Prof Jayantha Kodikara as Research Director), along with The University of Newcastle and the University of Technology Sydney. The group has developed a unique test bed (“Sydney Water Test Bed”) in Sydney using a decommissioned 1.5km long 600mm cast iron pipeline to test new technologies, corrosion and pipe/soil stress/strain measurements under traffic, water and environmental loads. Main research activities of the group include the development of failure prediction methods for old deteriorated pipelines, study of climate effects on pipelines, the use of optical fibres to produce early warnings for pipeline failures, axial walking, and upheaval buckling and fatigue failure of offshore pipelines.

Further details about the research project can be found at its website:
http://www.criticalpipes.com/
## 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 Priyan Dias, University of Moratuwa, Sri Lanka</td>
<td>Nanotechnology for the construction industry: Sri Lankan Motivations</td>
</tr>
<tr>
<td>Dr Francesca Bichai, Harvard University</td>
<td>Australia’s attitude to recycled water and QMRAs</td>
</tr>
<tr>
<td>Professor Edwina Cornish, DVC Monash</td>
<td>Vice Chancellor Research</td>
</tr>
<tr>
<td>Ms Lynda Rohan (Careers Education Consultant), Monash University</td>
<td>Tips for managing your career</td>
</tr>
<tr>
<td>Professor Mark Bradford</td>
<td>Innovative applications in composite slabs with trapezoidal steel decking</td>
</tr>
<tr>
<td>Professor Tam Sridhar, Dean Engineering</td>
<td>Faculty of Engineering – Recent achievements and future plans</td>
</tr>
<tr>
<td>Professor C M Wang, National University of Singapore</td>
<td>Relationships between solutions of classical beam/plate theories and the corresponding shear deformable beam/plate theories</td>
</tr>
<tr>
<td>Professor Robert L. Lytton, Texas &amp; M University (Lecture part of May 1012 Australian Lecture Tour Program)</td>
<td>Design of pavements on expansive clays</td>
</tr>
<tr>
<td>Ms Jennifer Reeder, Monash Postgraduate Association</td>
<td>Postgraduate Affairs Update</td>
</tr>
<tr>
<td>Professor Ed Byrne, Vice Chancellor and President, Monash University</td>
<td>The Monash University Vision, plus personal research student experiences</td>
</tr>
<tr>
<td>Professor Murray Rudman, Associate Dean Research, Faculty of Engineering, Monash University</td>
<td>A twisted path – from student to ADR</td>
</tr>
<tr>
<td>Ms Megan Deacon, Copyright advisor, Monash University</td>
<td>Copyright, E-thesis requirements and publishing in Civil Engineering journals</td>
</tr>
<tr>
<td>Professor Max King, Pro Vice Chancellor (Research and Research Training), Monash University</td>
<td>My personal journey as a researcher and my observations on presenting research</td>
</tr>
<tr>
<td>Professor Wolfgang Wagner, Vienna University of Technology</td>
<td>The operational METOP ASCAT soil moisture product: status and challenges</td>
</tr>
<tr>
<td>Professor Dragan Savić, University of Exeter</td>
<td>Real-time urban flood forecasting</td>
</tr>
<tr>
<td>Professor Zoran Kapelan, University of Exeter</td>
<td>Real-time event recognition using sensors and artificial intelligence</td>
</tr>
<tr>
<td>Dr Matteo Camporese Padova University</td>
<td>Using EnKF to identify the hydraulic conductivity spatial distribution from ERT time-lapse monitoring of tracer test exp.</td>
</tr>
<tr>
<td>Mr Brendon McNiven, Arup</td>
<td>The Singapore Experience</td>
</tr>
<tr>
<td>Professor Frieder Seible (New Dean of Engineering effective April 2013)</td>
<td>Built environment against natural and man-made hazards</td>
</tr>
<tr>
<td>Mr Simon Exon, AECOM</td>
<td>Central city strategic review – planning for growth in Melbourne’s CBD</td>
</tr>
<tr>
<td>Professor Serge Hoogendoorn, Delft University of Technology, The Netherlands</td>
<td>Principles of crowd dynamics and management</td>
</tr>
<tr>
<td>Dr Clara Draper, Global Modeling and Assimilation Office (GMAO) at NASA Goddard space Flight Centre</td>
<td>Assimilation and evaluation of near-surface soil moisture from passive and active microwave remote sensors.</td>
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<tr>
<td>Mr Daniel Grimm, Academy IT specialist, Faculty of Engineering</td>
<td>Easy, secure, shared research data support using Uni’s facilities</td>
</tr>
<tr>
<td>Dr Shanlong Lu, Chinese Academy of Sciences</td>
<td>Arid and semiarid watershed water resources management: ET management</td>
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## By staff and postgraduate students

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Seminar Topic</th>
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</thead>
<tbody>
<tr>
<td>Prof. Jeff Walker</td>
<td>State of the Department: Priorities for the year ahead</td>
</tr>
<tr>
<td>Mr Ye Nan</td>
<td>Mixed pixel retrieval of soil moisture form L-Band passive microwave observations</td>
</tr>
<tr>
<td>Mr Peter Bach</td>
<td>Integrated modelling revisited – the urban drainage system and beyond</td>
</tr>
<tr>
<td>Mr Peter Bach</td>
<td>The urbanBEATS model – a virtual urban water system tool</td>
</tr>
<tr>
<td>Mr Peter Bach</td>
<td>Digital cities – representing urban environments in UrbanBEATS</td>
</tr>
<tr>
<td>Mr Parikshit Verma</td>
<td>Modelling vegetation-groundwater interactions in groundwater dependent ecosystems</td>
</tr>
<tr>
<td>Dr Gavin Mudd</td>
<td>Mining and its amazing technicolour impacts: A photoblog of the environmental side of the mining debate</td>
</tr>
<tr>
<td>Ms Perrine Hamel</td>
<td>Integration of stormwater harvesting and infiltration-based systems to restore catchment low flow hydrology</td>
</tr>
<tr>
<td>Ms Bonnie Glaister</td>
<td>Optimisation of phosphorus removal in stormwater biofiltration systems</td>
</tr>
<tr>
<td>Dr Samantha Grover</td>
<td>Eddy covariance as a tool to understand ecosystem water and carbon dynamics</td>
</tr>
<tr>
<td>Ms Yali Li</td>
<td>Passive filtration for pathogen removal in urban stormwater</td>
</tr>
<tr>
<td>Ms Gayani Chandrasena</td>
<td>Modelling faecal microorganism removal in stormwater biofilters</td>
</tr>
<tr>
<td>Ms Gayani Chandrasena</td>
<td>A preliminary model on E. coli removal in stormwater biofilters</td>
</tr>
<tr>
<td>Ms Sasika Wijesooriya</td>
<td>Modelling of desiccation cracking in compacted clay soils</td>
</tr>
<tr>
<td>Mr Matthew Burns</td>
<td>The marriage between hydrology and ecology of streams in the Melbourne region</td>
</tr>
<tr>
<td>Mr Jason Ellerton</td>
<td>The Ecophysiology of Carex appressa and Lomandra longifilia in stormwater biofilters</td>
</tr>
<tr>
<td>Dr Will Gates</td>
<td>Linking neutron scattering of water to clay hydration</td>
</tr>
<tr>
<td>Mr Chao Wu</td>
<td>Bond characteristics and fatigue behaviour of steel plates strengthened with ultra high modulus CFRP plates</td>
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<tr>
<td>Mr Senthilkumar Muthukrishnan</td>
<td>Offshore pipe clay seabed interaction in axial direction</td>
</tr>
<tr>
<td>Mr Ben Shannon</td>
<td>Fracture propagation of cohesive soils under tensile loading and desiccation</td>
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<tr>
<td>Ms Emily Payne</td>
<td>Understanding the role of plants in nitrogen removal within stormwater biofilters</td>
</tr>
<tr>
<td>Dr Russell Thompson</td>
<td>City logistics: concepts and local projects</td>
</tr>
<tr>
<td>Ms Alexa Delbosc</td>
<td>Using online discussions forums to study attitudes toward cars and transit among young people in Victoria</td>
</tr>
<tr>
<td>Mr Michael Poustie</td>
<td>The way to transition: lessons in changing people’s practices</td>
</tr>
<tr>
<td>Dr Ha Bui</td>
<td>Advanced numerical modelling of large deformation and failure of geomaterials</td>
</tr>
<tr>
<td>Mr Alastair Macleod</td>
<td>Portland cement-carbon nanotube composites; a new paradigm for construction materials</td>
</tr>
<tr>
<td>Mr Kai Gong</td>
<td>Graphene oxide reinforced cement composite</td>
</tr>
<tr>
<td>Dr Rebekah Henry</td>
<td>Metagenomics: Understanding biodiversity in diverse environments</td>
</tr>
<tr>
<td>A/ Prof. Jayantha Kodikara</td>
<td>Monash pipeline research</td>
</tr>
<tr>
<td>Mr Brendan Pender</td>
<td>Planning for the unplanned: An international review of current approaches to service disruption management of railways</td>
</tr>
<tr>
<td>Mr Andras Fehervari</td>
<td>Advanced nanocomposites for enhanced containment of hyper-saline leachates</td>
</tr>
<tr>
<td>Dr Valentijn Pauwels</td>
<td>Consistency between hydrological model, large aperture scintillator and remote sensing based evapotranspiration estimates for an heterogeneous catchment</td>
</tr>
<tr>
<td>Dr Rao Martand Singh</td>
<td>Geothermal energy pile – a sustainable/renewable solution to conventional heating/cooling systems such as gas heating, electric heating and air conditioners</td>
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<tr>
<td>Dr Majid Sarvi</td>
<td>My Monash journey</td>
</tr>
<tr>
<td>A/Prof. Bob Keller</td>
<td>Ecological separation with hydraulic connectivity – an engineering solution to eliminate command</td>
</tr>
<tr>
<td>Prof. Ana Deletic</td>
<td>Water Sensitive Cities</td>
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</table>
4.5 Publications

Book Chapters


Journal Articles – Peer-reviewed


Heo, Y., Sanjayan, J.G., Han, C., Han, M., 2012, Relationship between inter-aggregate spacing and the optimum fiber length for spalling protection of concrete in fire, *Cement and Concrete Research* [P], vol 42, issue 3, Pergamon, UK, pp. 549-557.


Maduliat, S., Bambach, M.R., Zhao, X.L., 2012, Yield line mechanism analysis of cold-formed channel sections with edge stiffeners under bending, Structural Engineering and Mechanics [P], vol 42, issue 6, Techno-Press, Daejeon South Korea, pp. 883-897.


**Conference Papers – Peer-reviewed**


### 4.6 Postgraduate research projects

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Project Title</th>
<th>Supervisor(s)</th>
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<tr>
<td><strong>MengSc (Research)</strong></td>
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<tr>
<td>Yang Ao</td>
<td>Modelling of pipe-soil interaction in seabed pipelines</td>
<td>Prof A Bouazza</td>
</tr>
<tr>
<td>David Barry-Macaulay</td>
<td>Thermo-mechanical behaviour of Victorian soils</td>
<td>Prof A Bouazza</td>
</tr>
<tr>
<td>Kenan Feng</td>
<td>Exploring the damping properties and effects of strain rate on OPC-CNT composite</td>
<td>Dr W Duan</td>
</tr>
<tr>
<td>Kai Gong</td>
<td>Investigation on mechanical properties of graphene sheet with/without defects</td>
<td>Dr W Duan, A/Prof F Collins</td>
</tr>
<tr>
<td>Felipe Andres Orellana Martinez</td>
<td>Estimation and modelling of evapotranspiration in groundwater dependent ecosystems</td>
<td>Dr E Daly</td>
</tr>
<tr>
<td>Parag Moon</td>
<td>Modelling of new generation structural systems</td>
<td>A/Prof B Wong, Dr A Heidarpour</td>
</tr>
<tr>
<td>Tracey Pham</td>
<td>Understanding the role of vegetation in biofilters</td>
<td>Dr B Hatt, Prof T Fletcher</td>
</tr>
<tr>
<td>Student Name</td>
<td>Project Title</td>
<td>Supervisor(s)</td>
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<tr>
<td>Hassan Sabzehali</td>
<td>Development of a framework for environmentally-friendly intelligent eco-vehicle</td>
<td>Dr M Sarvi, Dr M Mesbah</td>
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<tr>
<td>Mengzi Sun</td>
<td>Modelling design and fabrication of wireless smart sensor networks for structural health monitoring</td>
<td>Dr W Duan, A/Prof J Kodikara</td>
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<tr>
<td>Minna Tom</td>
<td>Turning rain into food: the benefits and performance of vegetable rain-gardens</td>
<td>Dr D McCarthy, Prof T Fletcher</td>
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<tr>
<td>Bill Wang</td>
<td>Behaviour of pile foundations subjected to thermal loading</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<tr>
<td>Ka Lai Yu (Gary)</td>
<td>Geothermal piles</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<tr>
<td>Lu Zhang</td>
<td>Defects of geomembranes</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<tr>
<td>Bo Zou</td>
<td>Investigation on mechanical properties of graphene sheet with/without defects</td>
<td>Dr W Duan, A/Prof F Collins</td>
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<td>PhD</td>
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<tr>
<td>Asli Acikel</td>
<td>Improved landfill barrier design for changing climates</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<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, Dr M Sarvi</td>
</tr>
<tr>
<td>Farhana Ahmed</td>
<td>Impact of weather on commuter cycling behaviour and possible effects of climate change</td>
<td>Prof G Rose, Prof C Jakob</td>
</tr>
<tr>
<td>Asgar Ali</td>
<td>Landfill barrier design for changing climates</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<tr>
<td>Rawaa Al-Safy</td>
<td>Development of modified adhesives for bond between CFRP and concrete subjected to harsh environmental conditions</td>
<td>Prof R Al-Mahaidi, Prof G Simon</td>
</tr>
<tr>
<td>Haider Al-Zubaidy</td>
<td>Dynamic behaviour of the bond between CFRP and steel under impact loads</td>
<td>Prof X-L Zhao, Prof R Al-Mahaidi</td>
</tr>
<tr>
<td>Peter Bach</td>
<td>Development of a virtual urban water system tool</td>
<td>Prof A Deletic, Dr D McCarthy, Prof N Tapper</td>
</tr>
<tr>
<td>Ranmallee Bandara</td>
<td>Developing a soil property estimator algorithm using satellite data for soil moisture monitoring and prediction</td>
<td>Prof J Walker, Prof R Gurney</td>
</tr>
<tr>
<td>Matthew Burns</td>
<td>The impacts of urbanization on catchment hydrology and opportunities for stream health restoration through focussed catchment retrofit</td>
<td>Prof T Fletcher, Dr B Hatt</td>
</tr>
<tr>
<td>Xiaoying Cao</td>
<td>Study of traffic safety pre-evaluation process</td>
<td>Prof W Young, Dr M Sarvi</td>
</tr>
<tr>
<td>Gayani Chandrasena</td>
<td>Application of storm water harvesting system as a solution for urban flash floods with mutual benefits in water sensitive urban design</td>
<td>Dr D McCarthy, Prof A Deletic</td>
</tr>
<tr>
<td>Nasvi Careem</td>
<td>A study of geopolymer cement for the sequestration of Carbon Dioxide</td>
<td>A/Prof PG Ranjith, Dr A Haque</td>
</tr>
<tr>
<td>Shujian Chen</td>
<td>Embellishment of cements utilising carbon nanotubes (CNTs)</td>
<td>Dr W Duan, A/Prof F Collins, Prof X-L Zhao, Dr M Majumder</td>
</tr>
<tr>
<td>Sin Sheng (David) Chin</td>
<td>Travel time prediction on freeway (data fusion approach)</td>
<td>Prof G Rose, Dr Y Wang</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>A/Prof PG Ranjith, Dr A Haque</td>
</tr>
<tr>
<td>Charitha Dias</td>
<td>Decision support framework for public transport priority</td>
<td>Dr M Sarvi, Dr N Shiwakoti</td>
</tr>
<tr>
<td>Han Fang</td>
<td>Composite structure of steel and shape memory alloy for steel structure fire resistance design</td>
<td>Dr B Wong, Dr Y Bai</td>
</tr>
<tr>
<td>Wenjun (Kent) Feng</td>
<td>Fit-for-purpose water production</td>
<td>Prof A Deletic, Dr D McCarthy, Dr X Zhang</td>
</tr>
<tr>
<td>Andras Fehervari</td>
<td>Advanced nanocomposites for enhanced containment of hyper-saline leachates</td>
<td>Prof A Bouazza, Prof T Patti, Dr W Gates</td>
</tr>
<tr>
<td>Student Name</td>
<td>Project Title</td>
<td>Supervisor(s)</td>
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<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Harsha Fowdar</td>
<td>Integrated multi-functional urban water systems</td>
<td>Prof A Deletic, Dr B Hatt</td>
</tr>
<tr>
<td>Ying Gao</td>
<td>Joint active passive soil moisture retrieval</td>
<td>Prof J Walker, Dr D Ryu</td>
</tr>
<tr>
<td>Kelvin Goh</td>
<td>Optimising the design and implementation of public transport priority initiatives</td>
<td>Prof G Currie, Dr M Sarvi</td>
</tr>
<tr>
<td>Bonnie Glaister</td>
<td>Understanding the role of vegetation in nitrogen removal by biofiltration</td>
<td>Dr B Hatt, Prof T Fletcher, Dr P Cook</td>
</tr>
<tr>
<td>Perrine Hamel</td>
<td>Harvesting of rainwater and its effects on streams ecology</td>
<td>Prof T Fletcher, Dr E Daly, A/Prof J Beringer</td>
</tr>
<tr>
<td>Shahidul Islam</td>
<td>Improvement of soft soil by mixing lime-slag</td>
<td>Dr A Haque, A/Prof PG Ranjith</td>
</tr>
<tr>
<td>Tanvirul Islam</td>
<td>Thermal imaging application in pavement engineering and associated modelling</td>
<td>A/Prof J Kodikara, Dr P Rajeev</td>
</tr>
<tr>
<td>Babak Amani Jordehi</td>
<td>A systemic model to underpin enhanced management of powered-two-wheelers as part of a safe sustainable transport system</td>
<td>Prof G Rose, Dr R Thompson</td>
</tr>
<tr>
<td>Dusan Jovanovic</td>
<td>Sources, sinks and processes of faecal contamination in urban estuaries; a case study of the Lower Yarra River</td>
<td>Dr D McCarthy, Prof A Deletic</td>
</tr>
<tr>
<td>Harpreet Kandra</td>
<td>Performance assessment of porous pavements/fine media filter systems</td>
<td>Prof A Deletic, Prof T Fletcher</td>
</tr>
<tr>
<td>Asghar Korayem</td>
<td>Improving the bond between steel and CFRP by utilizing the nano-materials in adhesives</td>
<td>Dr W Duan, Prof X-L Zhao</td>
</tr>
<tr>
<td>Yali Li</td>
<td>Chemical removal processes in vegetated biofiltration systems and their impacts for riparian chemistry and ecology (in particular rates of denitrification and nutrient processing)</td>
<td>Prof A Deletic, Dr D McCarthy</td>
</tr>
<tr>
<td>Anna Lintern</td>
<td>The effect of and recovery from an anthropogenic shock to the Yarra River and estuary</td>
<td>Dr D McCarthy, Prof A Deletic</td>
</tr>
<tr>
<td>Wasantha Liyanage</td>
<td>Influence of joint properties for the strength of rock masses</td>
<td>A/Prof PG Ranjith, Prof A Bouazza, Dr A Haque, A/Prof J Kodikara</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>Prof T Fletcher, Prof A Deletic, Dr D McCarthy, Prof S Adeloju</td>
</tr>
<tr>
<td>Yang Liu</td>
<td>Hydro-mechanical effects of microbi ally induced cementation of CO2 in carbonates</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<tr>
<td>Alastair Macleod</td>
<td>Chemical transport properties of Portland cement-carbon nanotube composites</td>
<td>A/Prof F Collins, Dr W Duan</td>
</tr>
<tr>
<td>Michael Moffatt</td>
<td>The influence of multiple axle loads on pavement</td>
<td>Prof W Young</td>
</tr>
<tr>
<td>Negin Foulaidi Moghaddam</td>
<td>Subsurface structural properties retrieval in Surat Basin using space-borne SAR interferometry deformation maps</td>
<td>Dr C Rüdiger, Prof J Walker, Prof M Hall, Prof S Samsonov</td>
</tr>
<tr>
<td>Kamal Kumar Murari</td>
<td>Impacts of climate variability and climate change on water availability for vegetation at a river basin scale</td>
<td>Dr E Daly, Dr S Ghosh</td>
</tr>
<tr>
<td>Senthilkumar Muthukrishnan</td>
<td>Modelling of degradation of rock joint behaviour</td>
<td>A/Prof J Kodikara, Dr W Duan</td>
</tr>
<tr>
<td>Tien Nguyen</td>
<td>FRP strengthening of critical infrastructure for impact and blast loads</td>
<td>Dr Y Bai, Prof A Al-Mahaidi, Prof X-L Zhao</td>
</tr>
<tr>
<td>Emily Payne</td>
<td>The role of vegetation in removal of nitrogen</td>
<td>Dr B Hatt, Prof T Fletcher</td>
</tr>
<tr>
<td>Brendan Pender</td>
<td>Objectives in transport scheduling</td>
<td>Prof G Currie, Dr Y Wang, Ms A Delbosc</td>
</tr>
<tr>
<td>Sandy Peischl</td>
<td>Multi-angle soil moisture retrieval from SMOS</td>
<td>Prof J Walker, Yann H Kerr</td>
</tr>
<tr>
<td>Michael Poustie</td>
<td>Towards sustainable groundwater management: A case study: tagabe Catchment, Port Vila Vanuatu</td>
<td>Prof A Deletic, Prof R Browne, Dr G Mudd</td>
</tr>
<tr>
<td>Suranji Rathnayaka</td>
<td>Modelling of pipe-soil interaction in seabed</td>
<td>A/Prof J Kodikara, Dr P Rajeev</td>
</tr>
<tr>
<td>Md Rouf</td>
<td>Gas diffusion and gas permeability through geo-synthetic clay liner</td>
<td>Prof A Bouazza, Dr W Gates</td>
</tr>
<tr>
<td>Student Name</td>
<td>Project Title</td>
<td>Supervisor(s)</td>
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</tr>
<tr>
<td>Hassan Sabzehali</td>
<td>Assessing the transportation network performance by a new methodology</td>
<td>Dr M Sarvi, Prof M Wallace</td>
</tr>
<tr>
<td>Hussein Sadiq</td>
<td>Steel structure progressive collapse of steel structures in fire</td>
<td>A/Prof B Wong, Prof X-L Zhao</td>
</tr>
<tr>
<td>Sindu Satasivam</td>
<td>Free forming and function integrated all-composites structures for future building construction</td>
<td>Dr Y Bai, Prof X-L Zhao</td>
</tr>
<tr>
<td>Lorelei Schmitt</td>
<td>Do first trips matter? Exploring unfamiliar public transport trips</td>
<td>Prof G Currie, Ms A Delbosc</td>
</tr>
<tr>
<td>Michael Shackleston</td>
<td>Quality and impact of transportation research</td>
<td>Prof W Young</td>
</tr>
<tr>
<td>Mahshid Shahrban</td>
<td>Continuous modelling of stormwater hydraulics and quality using SWMM5</td>
<td>Prof J Walker, Dr Q J Wang</td>
</tr>
<tr>
<td>Benjamin Shannon</td>
<td>Fracture propagation of cohesive soils under tensile loading and desiccation</td>
<td>A/Prof J Kodikara, A/Prof PG Ranjith</td>
</tr>
<tr>
<td>Shi Shi Shao</td>
<td>Study of coupled thermo-hydro-mechanical (THM) behaviour of rocks related to geothermal industry</td>
<td>A/Prof PG Ranjith, Prof A Bouazza</td>
</tr>
<tr>
<td>Kanjana Siamphukdee</td>
<td>Securing longevity of reinforced concrete infrastructure through enhanced cathodic protection design</td>
<td>A/Prof F Collins, Dr A Heidarpour</td>
</tr>
<tr>
<td>Sina Sinaie</td>
<td>A fundamental study on the basic components of steel-concrete composite structures subjected to post-earthquake fire</td>
<td>Dr A Heidarpour, Prof X-L Zhao</td>
</tr>
<tr>
<td>Kunal Singh</td>
<td>Investigation of permeability of fractured, steep and deep rock slopes with high groundwater pressures</td>
<td>A/Prof PG Ranjith, Prof D Singh</td>
</tr>
<tr>
<td>Qianyi Song</td>
<td>Behaviour of I-beam to box column connections under post-earthquake fire</td>
<td>Prof X-L Zhao, Dr A Heidarpour</td>
</tr>
<tr>
<td>Roger Toleman</td>
<td>Parting of the ways? Toll roads and sustainability in Australia</td>
<td>Prof G Rose, Prof T Richardson</td>
</tr>
<tr>
<td>Nadeesha Ukwattage</td>
<td>Study of the accelerated carbonation of coal fly ash for carbon dioxide sequestration and soil amendment</td>
<td>A/Prof PG Ranjith, Prof A Bouazza, Dr A Haque</td>
</tr>
<tr>
<td>Parikshit Verma</td>
<td>Towards a quantitative framework for echohydrology of humid land</td>
<td>Dr E Daly, Prof I Cartwright</td>
</tr>
<tr>
<td>Vikram Vishal</td>
<td>Numerical simulation of CO₂ sequestration and recovery of CH4 from coal seams</td>
<td>A/Prof PG Ranjith, Prof T Singh</td>
</tr>
<tr>
<td>Michael Von’t Steen</td>
<td>Design of piled raft foundations based on small strain stiffness</td>
<td>Prof A Bouazza, Dr H Bui</td>
</tr>
<tr>
<td>Sasika Wijesooriya</td>
<td>Modelling of desiccation cracking in compacted clay liners and covers</td>
<td>A/Prof J Kodikara, Dr P Rajeev</td>
</tr>
<tr>
<td>Chao Wu</td>
<td>Bond characteristics, fatigue behaviour and durability of steel plates strengthened with high modulus CFRP plate</td>
<td>Prof X-L Zhao, Prof R Al-Mahaidi</td>
</tr>
<tr>
<td>Xiaoling Wu</td>
<td>A soil moisture monitoring prediction and reporting system for sustainable land and water management</td>
<td>Prof J Walker, Dr C Rüdiger</td>
</tr>
<tr>
<td>Xiao Yang</td>
<td>Application of composite materials</td>
<td>Dr Y Bai, Prof X-L Zhao</td>
</tr>
<tr>
<td>Ye Nan</td>
<td>Mixed pixel retrieval of soil moisture from L-band passive microwave observations</td>
<td>Prof J Walker, Prof R Gurney, Dr D Ryu</td>
</tr>
<tr>
<td>Mei Sun Yee</td>
<td>The application of remote sensing in soil moisture monitoring</td>
<td>Prof J Walker, Dr C Rüdiger, Dr E Daly</td>
</tr>
<tr>
<td>Richard Yeo</td>
<td>The performance of cemented pavement materials under heavy axle loading</td>
<td>Prof W Young, Mr K Sharp</td>
</tr>
<tr>
<td>Kefeng Zhang</td>
<td>Micropollutants Validation Framework for Passive Stormwater Treatment Systems</td>
<td>Prof A Deletic, Dr D McCarthy</td>
</tr>
</tbody>
</table>
4.7 Theses accepted for Higher Degree in 2012

<table>
<thead>
<tr>
<th>Candidate Name</th>
<th>Thesis Topic</th>
<th>Supervisor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEngSc (Research)</strong></td>
<td></td>
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</tr>
<tr>
<td>Felipe Andres Orellana Martinez</td>
<td>Estimation and modelling of the water balance in groundwater-dependent ecosystems</td>
<td>Dr E Daly, Prof I Cartwright</td>
</tr>
<tr>
<td>Alice Niculescu</td>
<td>Water and soil CO2 fluxes in a biofiltration system</td>
<td>Dr E Daly, Prof J Beringer, Prof A Deletic</td>
</tr>
<tr>
<td>Hassan Sabzehahi</td>
<td>A new methodology to measure transportation network performance</td>
<td>Dr M Sarvi, Dr M Mesbah</td>
</tr>
<tr>
<td><strong>PhD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rawaa Abdulla Saleh Al-Safy</td>
<td>Development of modified adhesives for bond between CFRP and concrete subjected to harsh environmental conditions</td>
<td>Prof R Al-Mahaidi, Prof G Simon</td>
</tr>
<tr>
<td>Siavash Hashemi</td>
<td>Strengthening of concrete structures using carbon fibre reinforced polymers and cement-based adhesives</td>
<td>Prof R Al-Mahaidi, A/Prof B Wong</td>
</tr>
<tr>
<td>Young Sun Heo</td>
<td>Identification of fibre parameters for spalling protection of concrete in fire</td>
<td>Prof B Wong/ Prof J Sanjayan</td>
</tr>
<tr>
<td>Kok Yun Lee</td>
<td>Continuous deterioration modelling of road pavement performance</td>
<td>Prof J Kodikara, Prof A Bouazza</td>
</tr>
<tr>
<td>Tien Cuong Nguyen</td>
<td>Environmental durability of bond behaviour between steel and carbon fibre reinforced polymer</td>
<td>Prof R Al-Mahaidi, Dr Yu Bai</td>
</tr>
<tr>
<td>Mandadige Samintha Anne Perera</td>
<td>Investigation of the effect of carbon dioxide sequestration on the hydro-mechanical properties of coal</td>
<td>A/Prof Ranjith PG, Prof J Kodikara</td>
</tr>
<tr>
<td>Richa Shukla Potdar</td>
<td>Study of reservoir rock and caprock integrity in geo-sequestration of carbon dioxide</td>
<td>A/Prof Ranjith PG, Dr A Haque</td>
</tr>
<tr>
<td>Richard Engyat Yeo</td>
<td>The performance of cemented pavement materials under heavy axle loading</td>
<td>Prof W Young</td>
</tr>
</tbody>
</table>

4.8 Postgraduate Student Awards

Daniel Borrie was awarded the inaugural Noel Murray Scholarship in 2012.

Michael Poustie won the departmental 3MT competition, and also won 3rd prize and the People’s Choice Award at the Faculty 3MT competition final with his speech “Transitioning to sustainable urban water management in the Pacific region”.

Dileeka Jasinge won the 2012 Best PhD Thesis Award.

Perrine Hamel won the “Best Presentation” Award at the 2012 Postgraduate Conference.

Peter Bach won the “Best Departmental Seminar Presentation” Award for 2012.

Han Fang won the “Best Departmental Seminar Attendance” Award for 2012.

The “Best Publication Award” went to each Group as follows:
- Navinda De Silva (Geomechanical)
- Chao Wu (Structures)
- Kayvan Aghabaky (Transport)
- Matthew Burns (Water)

Mandadige Samintha Anne Perera won the Mollie Holman Award for 2012. Congratulations!

Felipe Orellana Martinnez won the 2012 Vice Chancellor’s Commendation for MEngSc (Research).

Kai Gong (along with 4th year undergrad Jason Poole) won the Forest & Wood Products Australia (FWPA’s) WoodSolutions award to attend the World Conference on Timber Engineering 2012 in Auckland in July 2012.
4.9 Graduating Class of 2012 (Postgraduate Students)

Graduate Certificate in Infrastructure Engineering and Management
Geoffrey Bernard Bartholomew
Jason David Brook
James Lachlan Godbee
Chu Yew Kii
Upeksha Dhammika Mapa
Dave O’Neal Scantlebury
Dewit Visser
Maree Anne Walker

Graduate Certificate in Transport & Traffic
Michael John Smith

Graduate Diploma in Transport & Traffic
Kamoru Adetunmbi
Giulio Ponte
Hamish Neil Van der Hoek

Master of Engineering Science (Research)
Paul Hamer
Felipe Andres Orellana Martinez
Alice Niculescu
Hassan Sabzehali

Master of Traffic
Aftab Ahmed Abro
Andrew Backman
Clare Eleanor Davey
Snezana Dimitrovska
Erin Driscoll
Robert Dunn
Leigh Furness
Pramanand Gopaldu
David James Hayward
Jason Keith Macpherson
Sylvestre Ng
Michael O’Flaherty
Pero Peric
Bartosz Popielczyk

Master of Infrastructure Engineering and Management
Stuart Douglas Beatton
Danielle Loise D’Rose
Michelle Eng
Joo Wah Gerard Gan
Nicola Maree Grant
Wayne Stephen Mack
Andrew Mullen
Aishwariyanand Ganpatbhai Patel
Johannes Wilhelmus Ruisbroek
Mohammad Saifuzzaman (in absentia)
Luky Saputra
Sharda Nanda Singh
Alvin Su Ping Ting
David Tricarico
Bhargav Trivedi
Jason Robert Vains

Master of Transport
Tanvir Asgar
Sin It Foong
Erika Garbayo
Gigi Tsz Hin Kwok
Mitra Rashidi
Jay Leigh Rosenberg
Sayand Sayanthaverl Thedschanamoorthy
Andrew Walsh

Doctor of Philosophy
Dr Md Aftabuzzaman
Dr Rawaa Abdulla Saleh Al-Safy
Dr Jimmy Haedir
Dr Victoria Johnson
Dr Mandadige Samintha Anne Perera
Dr Richa Shukla Potdar
Dr Siavash Hashemi
Dr Kok Yun Lee
Dr Richard Eng Yat Yeo
Dr Gwee Tat Meng (in absentia)

2012 Staff members and Postgraduate students
5. SERVICE

5.1 Contribution to Professional Organisations

Adam, Con  
Member, ISO Standard TC 165 Committee  
Member, Standard Australia TM004 Committee

Bouazza, Malek (Prof)  
Member, Council of International Geosynthetics Society  
Chair, Asian Regional Committee, International Geosynthetics Society  
Chair, Technical Committee on Barrier Systems, International Geosynthetics Society  
Vice-Chair, Technical Committee 215 Environmental Geotechnics of the International Society of Soil Mechanics & Geotechnical Engineering  
Vice Chair, Australasian Chapter of IGS  
Member, Victorian Chapter of AGS

Clements, John (Prof)  
Fellow, Chartered Institute of Logistics and Transport, Australia  
Member, Passenger Transport Group Committee, Chartered Institute of Logistic and Transportation

Collins, Frank (Assoc. Prof)  
Member, American Concrete Institute 222 Corrosion of Metals in Concrete  
Member, American Concrete Institute 365 Service Life Prediction of Concrete Structures  
Interviewer of Members seeking promotion to Chartered Professional Engineer status with Institution of Engineers (Australia)  
Project Expert Panel Member of the “Implication of Climate Change Impact on Concrete Infrastructure” project led by CSIRO National Research Flagship on Climate Adaption

Currie, Graham (Prof)  
Vice Chair of Research Subcommittee - US Transportation Research Board – Committee AP075 Light Rail Transit Systems  
Member, Transport and Social Inclusion Committee  
Member, US Transportation Research Board – Committee AP050 Bus Transit Systems  
Member, US Transportation Research Board – Committee AP025 Public Transportation Planning and Development

De Alwis, Astrid (Ms)  
Member, Chartered Institute of Logistics and Transport

Deletic, Ana (Prof)  
Member, Urban Water Stakeholder Reference Panel (under SEWPAC), Federal Dep’t of Sustainability  
Member, National Recycled Water Regulators Forum  
Member, Water Forum Committee, Australian Academy of Technological Sciences & Engineering (ATSE)  
Chair, Technical Review Committee: Urban Stormwater Best Practice Environmental Management Guidelines in association with CSIRO, EPA, Melbourne Water Corp, Office of Living Victoria, Dept Natural Resources & Environment & Municipal Association of Victoria

Kodikara, Jayantha (Assoc. Prof)  
Chairman, Board of Control, SME project on smart pipe monitoring hosted by Department of Innovation and Melbourne Water, 2012

Lu, Ye (Dr)  
Member, Australian Network of Structural Health Monitoring

McCarthy, David (Dr)  
Secretary, International Working Group on Data and Models (under IWA/IAHR)
5.2 Editorial Services

Adam, Con
Commercial video publication sponsored by the Timber Industry, promoting Monash University interest in timber research, and elaborating on the topic of “Racking Capacity of Walls to Resist Wind Forces”
Editorial in FWPA newsletter, “Design of glulam based on lamination grades and mill shorts”

Bouazza, Malek (Prof)
Member, Editorial Board, Journal of Geotechnical and Geoenvironmental Engineering
Member, Editorial Board, Journal of Geological and Geotechnical Engineering
Member, Editorial Board, Geotextiles and Geomembranes
Member, Editorial Board, Geosynthetics International
Member, Editorial Board, Geosynthetics
Member, Editorial Board, International Journal of Lowland Technology
5.3 External Review of PhD Theses and MEngSc (Research)

Currie, Graham (Prof)
Examiner, PhD Thesis, Queensland University of Technology
Examiner, PhD Thesis, University of New South Wales

Rose, Geoff (Prof)
Examiner, PhD Thesis, Queensland University of Technology
Examiner, PhD Thesis, University of South Australia
Examiner, PhD Thesis, Macquarie University
5.4 Services to Expert Bodies, Expert Advice & Media Interviews

Adam, Con
Assessment Advisor, R&D Tax Concession

Bai, Yu Barry (Dr)
Conference Secretary, ACUN series of International Composites Conference: ACUN-6 Composites & Nanocomposites in Civil Offshore and Mining Infrastructure, Melbourne, Australia, 2012
Conference Secretary, 4th Asia-Pacific Conference on FRP in Structures (APFIS 2013), Melbourne, Australia, 2013
Member of the International Scientific Committee of the 2nd Conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures (SMAR 2013), Istanbul, Turkey, 2013
Member of the International Scientific Committee of the Fourth Asia-Pacific Young Researchers and Graduates Symposium (YRGS 2012), Hong Kong, China, 2012

Bouazza, Malek (Prof)
Chair, 7th International Congress on Environmental Geotechnics
Member, Advisory Committee, ANZ Conference
Member, Scientific Committee, 17th ISSMGE, Paris, 2013; GeoAsia2012, Bangkok; 1st CPEG, Torino, 2013

Currie, Graham (Prof)
The Age, 1 March 2012 ‘Public transport needs billions’
3AW, April 2012 – ‘Opportunities for Monorail in Melbourne’
The Age, 14 June ‘Six new suburbs but little public transport’
Financial Review, 23 June 2012 ‘Careless and carless; youth gets going’
The Age, 3 July 2012 ‘Buses miss chance to join the fast lane’
Radio National, 1 and 4 August, By Design Program on Why Car Use is In Decline with Young People

Deletic, Ana (Prof)
Member, Scientific Committee, WSUD2012, Melbourne, Australia, Feb, 2012
Chair, Korean-Australian Green Growth Workshop, ATSE / NAEK, Seoul, May 2012
Member, Organising Committee, 9th Urban Drainage Modelling, Serbia, Sept 2012
International Expert Advisor, Pennine Water Group (Sheffield and Braford Universities), EPSRC (UK) platform grant centre
International Expert Advisor, Water in Cities – Danish National Program on Urban water
The Age, Feature article re: winning the Victoria Prize for Science and Innovation award, 22 November 2012
Interview, ABC Radio, 4th December 2012, Water Sensitive Cities & road-run-off / urban stormwater harvesting, in response to an article in Ecos Magazine by Prof Rob Skinner at Monash Water for Liveability

Haque, Asadul (Dr)
Member, International Advisory Committee, International Conference on Civil Engineering for Sustainable Development (ICCESD-2012)

Johnson, Marilyn (Dr)
Member, Amy Gillett Foundation Research and Policy Committee
Member, Australian Cycling Conference Reference Group
774 ABC Melbourne, 8 November 2012, earphones, music and cyclist safety, interview with Jon Faine
The Conversation, 14 November 2012, ‘Electric bikes at 250 watts … the view has opened up nicely’
ABC radio, 16 November 2012, Far North Queensland – Changes to electric bike legislation
Gizmodo.com.au, 19 November 2012, ‘Giz explains – What is an electric bike?’
Kodikara, Jayantha (Assoc. Prof)
Member, Local Organising Committee – 4th Asia-Pacific Workshop on Structural Health Monitoring, Melbourne Australia, 5-7 December 2012.
Interview by ABC 7.30 Report on Buried pipe failures, 30 August 2012

McCarthy, David (Dr)
Member, Scientific Committee and Conference Deputy Chair, WSUD2012, Melbourne, February 2012
Co-convenor of 7th International Conference on Water Sensitive Urban Design, Melbourne, 21-23 February 2012

Mudd, Gavin (Dr)
Member, Scientific Committee, Mine Closure 2012, Brisbane, September 2012
Member, Alligator Rivers Region Technical Committee (ARRTC) Darwin
Board member, Mineral Policy Institute (MPI)
Science Magazine (AAAS), 2 March 2012, Is the World Tottering on The Precipice of Peak Gold?
ABC Radio Australia, 6 February 2012, Newcrest accused of river leak in Fiji
ABC NSW TV News, 4 March 2012, Potential Lidcombe radioactive waste facility causes concern
The Conversation, 27 April 2012, “To boom or not to boom?” Mineral resources in the Asian Century
ABC News Online (30 May 2012), ABC News Radio (31 May 2012), CSG Impacts and the Condamine River
The Conversation, opinion piece, 1 June 2012, Bubbling to the Surface – CSG Impacts and the Condamine River
The Australian, 10 August 2012, One Law for the Mines…
Parramatta Advertiser, 29 August 2012, Fallout Spreads From Uranium Waste Dumping Plan

Rose, Geoff (Prof)
Member of National Steering Committee, Australasian Transport Research Forum
Member of Organising Committee, International Travel Survey Methods Conference (2011-2014)
The Age, 22 June 2012, ‘On Your Bike’ editorial

Rüdiger, Christoph (Dr)

Sarvi, Majid (Dr)
Member of organising committee for the 20th International Symposium on Transportation and Traffic Theory (ISTTT13) at Delft University, Netherlands, 17-19 July 2013

Shiwakoti, Nirajan (Dr)
Telephone interview by Perowne, D from Oxford Scientific Films (UK), 25 May 2012, 'Use of ants to model crowd panic'

Thompson, Russell (Dr)
Member of Organising Committee, 8th International Conference on City Logistics, Bali, 2013
Member of Organising Committee, 4th International Conference on Transportation Logistics (T-LOG 2012), Korea, August 2012

Walker, Jeff (Prof)
Member, Scientific Committee, CAHMDA-V, Netherlands, July 2012
Technical co-chair, Organising Committee, IGARSS, Melbourne 2013
Member, Scientific Committee, 12th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment (Microrad 2012), Villa Mondragone, Frascati, Rome, 5-9 March 2012
Deputy Organiser of an event of the 39th COSPAR Scientific Assembly, Mysore, India, 14-22 July 2012

Zhao, Xiao-Ling (Prof)
Member, International Scientific Committee, Third Asia-Pacific Conference on FRP in Structures, Japan, February 2012
Member, International Scientific Committee, 7th International Conference on Advances in Steel Structures, Nanjing, China, April 2012
Member, International Scientific Committee, 6th International Conference on Advanced Composite Materials in Bridges and Structures (ACMBS-VI), Ontario Canada, 23-25 May 2012
5.5 Consulting and Contract Research

Heat Migration through fire buffer caused by random heat source (BTQ Pty Ltd & Golder Associates)

5.6 External Seminars, Workshops and Special Presentations

Breen, Peter (Dr)
CRC Melbourne Hub Seminar, Programs A & C, Water Sensitive Urbanism, 14 November 2012

Currie, Graham (Prof)
Greater Bendigo Transport Planning for the Future Community Discussions – Councillor/EMT Briefing 28 Feb 2012 ‘Thoughts for Leadership of an Integrated Transport Plan’
Visit of the Ministry of Transport, Peoples Republic of China to Monash University Thursday March 15th 2012 - ‘Institute of Transport Studies (Monash) and Major Special Event Transport Research’
Monash Injury Research Institute, Thursday 10th May 2012 ‘Public Transport Safety Research at the Institute of Transport Studies’
Key Note Speech, Florida State University Symposium on ‘Market Oriented Transit Reform’, Alumni Centre, FSU Tuesday May 15th 2012, ‘Degregulation, Franchising, Outsourcing and Corporatisation in Local Public Transit - International Experience’
Address, Centre for Urban Transport Research, University of Southern Florida, ‘Exploring Ridership Drivers of BRT, Bus, Streetcar and Light Rail Transit’ Tampa Bay Florida, Thursday May 17th 2012
Address, The 10th annual Victorian Transport Summit October 2012, Melbourne
Address, The 7th Annual NSW Transport 2012 8th & 9th November 2012, Sydney Harbour Marriott At Circular Quay
Address, 12th UITP Asia-Pacific Assembly & Rapid Transit Symposium, Perth, 14-16 November 2012
Moonee Valley City Council – New Councillor Induction Briefing, 24 November 2012

DeAlwis, Astrid (Ms)
BusVic Branch Meeting Roadshow presentations, six major regional Victorian towns, Feb – March 2012

Deletic, Ana (Prof)
Workshop with Melbourne Water, Vic Roads, LMA & EPA, ”Managing pollution from freeway runoffs...”, Brandon Business Park, Melbourne, 19 January 2012
CRC for Water Sensitive Cities, Participants' Briefing, Melbourne, 20 January 2012
National Recycled Water Regulators Forum (9th meeting), Mineral House, Brisbane, 2 February 2012
CRC Key Researchers' Meetings, Melbourne, 23 -24 February 2012
Workshop II: Creating Water Sensitive Cities in Israel, 26-27 February 2012
Monash Senior Leadership Forum, 31 May 2012
Clunies Ross Dinner Presentations, Sydney Convention & Exhibition Centre, NSW, 14 June 2012
CRC Board Dinner & Board Meeting, Melbourne, 21-22 June 2012
Melbourne Water workshop, 18 July 2012
Closing Forum / Research Seminar, Melbourne's Transition to a Water Sensitive City, CRC for WSC & Monash Water for Liveability presentations, 14 August 2012
EU FP7 PREPARED Enabling Change, 7 September 2012
Workshops & meetings with Israeli Water Authority, in liaison with JNF/ KKL, re: Water Sensitive Cities, Israel, 10 – 11 September 2012
Workshop with Pennine Water Group as International adviser, Sheffield University, England, 17-18 September 2012


Urban Water Stakeholder Reference Panel, SEWPAC, federal Dep’t of Sustainability Meeting No. 11, presentation on CRC for WSC, Canberra, 2 November 2012

Technical Review Committee, Melbourne Water, 11 November 2012

ATSE Water Forum, AGM & Oration Dinner, 23 November

ATSE Steering Committee on water recycling, 3 December

Research and Development Forum, Melbourne Water, 3 December

DAnCE 4 Water, Melbourne Water, 10 December 2012

Joint Leadership Meeting: Reinventing the Nation’s Urban Water Infrastructure (ReNUWIt), USA / CRC for Water Sensitive Cities, Australia, 18-20 December 2012

Grover, Samantha (Dr)
La Trobe University Dep’t Ag Sciences Seminar Series - Eddy covariance as a tool to understand ecosystem water and carbon dynamics, October 2012

Johnson, Marilyn (Dr)
City of Melbourne’s Road Safety Plan, Stakeholder workshop, 21 November 2012

2020 Vision Zero: To share or not to share the way, Royal Australasian College of Surgeons, Trauma Committee workshop, 22 November 2012

Address, ‘Safer road users’, Cycling Safety Forum, 3 November 2012, RAC WA Perth

Address, ‘Beyond helmets and high vis’, Public Health Association of Australia, Annual General Meeting, 13 November 2012, VicHealth Melbourne

Kilpatrick, Bill (Mr)
BusVic Branch Meeting Roadshow presentations, six major regional Victorian towns, Feb – March 2012

Liu, Zhiyuan (Terry) (Dr)
Key Note Speech, 6th Victorian Chinese PhD Students and Young Scholars Research Symposium, September 2012 at Victoria University.

Mudd, Gavin (Dr)
Public meeting on Hunter's Hill radioactive waste cleanup and the potential Lidcombe storage site; Sydney, February 2012

AMP Ethical Investment Forum – Coal Seam Gas and Groundwater, Sydney, February 2012

Monash Environment Society – Fukushima’s Australia Fallout, March 2012

Public Forum – Coal Seam Gas and Groundwater, Canberra, April 2012

Community Seminar - Uranium Mining and the Environment, Wiluna, Western Australia, 22 August 2012

Community Seminar - Coal Seam Gas, Fracking and Groundwater, Sale, Victoria, 3 September 2012

Academic Seminar - The Environmental Side of the Mining Debate, Sustainable Minerals Institute, University of Queensland, Brisbane, Queensland, 20 September 2012

Community Seminar - Coal Seam Gas, Fracking and Groundwater, Poowong, Victoria, 28 September 2012

Community Seminar - The Legacies of the Rum Jungle and Ranger Uranium Mines, Darwin, Northern Territory, 3 December 2012

Pauwels, Valentijn (Dr)
CRC Melbourne Hub Seminar, Programs A & C, Water Sensitive Urbanism, 14 November 2012

Rüdiger, Christoph (Dr)
SMOS cal/val activities in Australia, ESA ESTEC, Netherlands, July 2012

Thompson, Russell (Dr)
Address, “A collaborative distribution network for large urban areas”, Japan Society of Civil Engineering, 24 February 2012, Tokyo.

Address, “Transport and Health”, International Symposium on 50th Anniversary of Department of Transportation Engineering and Socio-Technology, College of Science and Technology, Nihon University, 25 February 2012.

Address, “Investigating the Health Impacts of Travel Behaviour Using GPS”, Workshop on Transport, Chronic Disease and Health Research, School of Population and Health, The University of Melbourne, 6 August 2012.
Address, “City Logistics in Melbourne”, Centre for Modern Logistics, Tsinghua University, Shenzen, 22 October 2012.

**Walker, Jeff (Prof)**
Presented at LITE Program Dinner, February 2012
Presented at Scotch College careers night, May 2012
Presented at Tri-University Challenge in China, December 2012

**Zhao, Xiao-Ling (Prof)**
Chaired an international technical committee meeting - IIIFC (International Institute for FRP in Construction) Working Group on FRP Strengthened Metallic Structures during the CICE, Rome, Italy, June 2012

### 5.7 Conference Attendance

**Bouazza, Malek (Prof)**
Keynote lecture on GCLS, Aco-Forum, Sydney, March 2012

**Currie, Graham (Prof)**
UITP Asia Pacific Assembly Perth 14-16 Nov 2012
Transportation Research Board 90th Annual Meeting, Washington DC, 23-27 January 2012
35th Australasian Transport Research Forum Conference

**Delbosc, Alexa (Ms)**
Transportation Research Board 90th Annual Meeting, Washington DC, 23-27 January 2012
35th Australasian Transport Research Forum Conference

**Deletic, Ana (Prof)**
7th International Conference on Water Sensitive Urban Design (‘WSUD2012’), Melbourne, Australia, 21st – 23rd February 2012
CRC Industry Partner Workshop & Annual General Meeting, Melbourne, 3-4 May 2012
CRC Implementation Workshop, Adelaide, 26 June
9th International Conference, Urban Drainage Modelling (UDM), Belgrade, Serbia, 4 – 7 September (Deletic)
15th International River Symposium, Melbourne, hosted by International Water Centre, 8-11 October 2012
Stormwater Harvesting Training Course, WSUD, NSW Catchment Management Authority, CRC for Water Sensitive Cities, Sydney, 17 October 2012
EPA Conference, Strategic Research & Development Program, EPA Vic, 8-9 November 2012 (Deletic)
Blueprint Workshop, CRC for Water Sensitive Cities 19 November 2012
CRC Industry Partner Workshops & Executive meetings, Perth, 27-28 November 2012

**Grover, Samantha (Dr)**
Ozflux 2012, Methven, New Zealand, 4-6 July 2012

**Hatt, Belinda (Dr)**
WSUD2012, Melbourne, Australia, February 2012
Advancing biofilters in Western Australia: Research Seminar, 31 July 2012

**Kilpatrick, Bill (Mr)**
Kororoit Institute International Symposium, Melbourne, 29 February - 2 March 2012

**Kodikara, Jayantha (Assoc. Prof)**
Theme Lecture, Advances in Multiphysical Testing of Soils and Shales, 3-5 September 2012, Lausanne, Switzerland

**Liu, Zhiyuan (Terry) (Dr)**
17th International Conference of Hong Kong Society of Transport Studies
McCarthy, David (Dr)
WSUD2012, Melbourne, Australia, February 2012
Melbourne Water workshop, 18 July 2012
DAnCE 4 Water, Melbourne Water, 10 December 2012
9th International Conference, Urban Drainage Modelling (UDM), Belgrade, Serbia, 4 – 7 September 2012
EU FP7 PREPARED Enabling Change, 7 September 2012
15th International River Symposium, Melbourne, hosted by International Water Centre, 8-11 October 2012
Stormwater Harvesting Training Course, WSUD, NSW Catchment Management Authority, CRC for WSC, Sydney, 17 October 2012

Mudd, Gavin (Dr)
Keynote Speaker, HazMat2012, Melbourne
Keynote Speaker, Coal Seam Gas and the Environment workshop, Barcaldine/Longreach, April 2012

Pauwels, Valentijn (Dr)
AGU annual meeting, San Francisco, 2-6 December 2012

Rose, Geoff (Prof)
Transportation Research Board 91st Annual Meeting, Washington DC, 23-27 January 2012

Rüdiger, Christoph (Dr)
AGU Chapman Conference, Hawaii, February 2012
Australian Academy of Sciences – Science at the Shine Dome: 100 years of Antarctic Science, Canberra, May 2012
CAHMDA-V, Enschede, Netherlands, 9-13 July 2012
IGARSS 2012, Munich, Germany, 23-28 July 2012
Earth Observation of the Cryosphere Science, ESA ESRIN, Frascati, Italy, 13-16 November 2012

Sarvi, Majid (Dr)
6th International Conference on Pedestrian and Evacuation Dynamics, Zurich, Switzerland, 6 - 8 June 2012
Transportation Research Board 91st Annual Meeting, Washington DC, 23-27 January 2012

Shiwakoti, Nirajan (Dr)
6th International Conference on Pedestrian and Evacuation Dynamics, Zurich, Switzerland, 6 - 8 June 2012

Thompson, Russell (Dr)
Kororoit Institute International Symposium, Melbourne, 29 February - 2 March 2012
T-LOG2012

Walker, Jeff (Prof)
AGU Chapman Conference, Hawaii, February 2012
5th Global Workshop on Digital Soil Mapping, Sydney, April 2012
CAHMDA-V, Enschede, Netherlands, 9-13 July 2012
IGARSS 2012, Munich, Germany, 23-28 July 2012
Precision Agriculture, Mildura, 5-6 September 2012
GEWEX Hydroclimatology Panel, Sydney, 11-13 October 2012
SMAP Cal/Val Workshop, Oxnard, 14-16 November 2012
Tri-University Workshop, Changsha, 6-8 December 2012
Expert Technical Workshop on Remote Sensing, Canberra, 11 December 2012

Young, William (Prof)
25th Australian Road Research Board Conference (Young)
35th Australasian Transport Research Forum Conference (Young)

Zhao, Xiao-Ling (Prof)
3rd Asia Pacific Conference on FRP in Structures (APFIS 2012), Sapporo, Japan, 2-4 Feb 2012
2012 ASCE Structures Congress, Chicago, March 2012
Structural Stability Research Council 2012 Annual Stability Conference, Grapevine, Texas, April 2012
6th International Conference on FRP Composites in Civil Engineering (CICE 2012), Rome, Italy, 13-15 June 2012
5.8 Administration

Departmental

Bouazza, Malek (Prof)
Executive Committee Member

Bai, Yu Barry (Dr)
Level 3 Representative
Equity & Access representative

Bui, Ha (Dr)
Social Committee

Collins, Frank (Assoc. Prof)
Head of Structures Group
BE/BArch coordinator

Currie, Graham (Prof)
Executive Committee Member

Daly, Edoardo (Dr)
Head of Water Group
Director of Research (Sem2)
Department Research Committee
Level 4 representative

Deletic, Ana (Prof)
Director of Centre for Water Sensitive Cities
Deputy Head of Water Group
Executive Committee Member

Duan, WenHui (Dr)
OHS Committee
Library representative

Haque, Asadul (Dr)
Deputy Director of Teaching
Time table officer
Program Director (Infrastructure eng & Management)
OHS Committee

Heidarpour, Amin (Dr)
Deputy Head of Structures Group
Lever 2 Course Advisor
Deputy Level 4 Course Advisor

Kodikara, Jayantha (Assoc. Prof)
Head of Geo Group
Departmental publication officer

Lu, Ye (Dr)
Website coordinator

Monerris-Belda, Alessandra (Dr)
Social Committee

Powell, Chris (Mr)
Director of Resources
Ranjith, PG (Assoc. Prof)  
Director of Research (Sem1)  
Deputy Head of Geo Group

Rose, Geoff (Prof)  
Director, Postgraduate Program in Transport and Traffic  
Executive Committee Member

Rüdiger, Christoph (Dr)  
Deputy Research Training Officer  
Workload Officer

Sarvi, Majid (Dr)  
Deputy Head of Transport Group  
Department Research Committee  
Deputy Director of Research  
Open Day representative

Walker, Jeff (Prof)  
Head of Department  
Chair of Executive Committee  
Chair of Management Committee  
Chair of Heads of Sections Committee  
Chair of OHS Committee

Wang, Yibing (Dr)  
Director of International Affairs

Wong, Man-Bui Bill (Assoc. Prof)  
Director of Teaching  
Deputy Head of Department  
Level 1 Representative  
Exam Officer  
BTEch (Infrastructure) Director  
Executive Committee Member

Young, William (Prof)  
Director of Institute of Transport Studies (Monash Node)  
Head of Transport Group  
Executive Committee Member

Zhao, Xiao-Ling (Prof)  
Executive Committee Member

Faculty

Bai, Yu Barry (Dr)  
Equity & Access Committee Member  
Faculty Board Member

Bui, Ha (Dr)  
Faculty Discipline Committee Pool

Collins, Frank (Assoc. Prof)  
Faculty Coordinator on the Board of Faculty of Arts and Design (Monash, Caulfield)  
Coordinator with the Faculty of Architecture towards mentoring the BE/Arch double-degree students in the new BE/Arch course

Currie, Graham (Prof)  
Faculty Board Member

Daly, Edoardo (Dr)  
Faculty Board Member
SERVICE

Deletic, Ana (Prof)
Selection Committee for the Dean of Faculty of Engineering

Haque, Asadul (Dr)
Faculty Board Member

Heidarpour, Amin (Dr)
Faculty Board member

Kodikara, Jayantha (Assoc. Prof)
Faculty Board Member

McCarthy, David (Dr)
Engineering Academic Progress Committee Member

Mudd, Gavin (Dr)
Course Director – Environmental Engineering
Double Degree Advisor

Ranjith, PG (Assoc. Prof)
ERA 2012- 4 digit co-ordinator for 905, 907, 914
Faculty Blackboard Administrator
Director of Research and Training

Rüdiger, Christoph (Dr)
Faculty Board Member
Engineering Academic Progress Committee Member

Sarvi, Majid (Dr)
Faculty Board Member

Walker, Jeff (Prof)
Faculty Executive Committee Member
Faculty Quality Verification Committee Member
Faculty Board Steering Committee Member
Faculty Board, Executive
Faculty Probation Committee Member
OSP Committee Member
Associate Professor Promotion Committee Member

Wong, Man-Bui Bill ( Assoc. Prof)
Engineering Education Committee Member

University

Deletic, Ana (Prof)
Director of Monash Water for Liveability (formerly Centre for Water Sensitive Cities)
CRC Melbourne Hub Leader for Vic, Tas, SA
Professoral Promotion Committee Member

Rose, Geoff (Prof)
SMT (Environment) and Transport Subcommittee Member
Education Executive Group Member

Johnson, Marilyn (Dr)
Monash University Human Research Ethics Committee (MUHREC) Member

Mudd, Gavin (Dr)
Monash Carbon Management Committee Member

Walker, Jeff (Prof)
Academic Board Member
6. TRAINING & PROFESSIONAL DEVELOPMENT

Bouazza, Malek (Assoc Prof)
Short course on reinforced earth, Feb 2012 with Richard Bathurst

Grover, Samantha (Dr)
Groundwater Use by Vegetation 2 day training course
Summer course on Flux observations and advanced modelling, 2 week workshop, Boulder, USA
Future Research Leaders Program, modules 2-8

Hatt, Belinda (Dr)
Future Research Leaders Program, Modules 1, 2 & 3
Research Supervision Accreditation Level 2, Master Classes 2, 4, 6, 8 & 10

Monerris-Belda, Alessandra (Dr)
Staff Selection Excellence 1-day workshop

Rüdiger, Christoph (Dr)
Research Supervision Accreditation Level 2, Master Classes 3, 8
Graduate Certificate of Academic Processes

Walker, Jeff (Prof)
New Heads 3-day training course
Staff Selection Excellence 1-day workshop
Moodle
CPR Refresher

Zhao, Xiao-Ling (Prof)
The following was undertaken whilst on sabbatical:
Attended IIFC (International Institute for FRP in Construction) Executive Committee and Advisory Committee meeting, Sapporo, Japan, February 2012
Attended “Sandford Fleming Forum” at University of Toronto, April 2012
Attend the SSRC Business Meeting and SSRC Track at the AISC-NASCC Conference, Grapevine, Texas, April 2012