While 2010 was a great year for the School - including increasing demand for our undergraduate degree programs, 5 out of 5 in the ARC’s research ranking, launch of the School’s 60 year history book, prestigious research fellowships to Professors Mark Bradford and Ashish Sharma, 2011 promises to be just as good. Our first year intake this year was as high as last year (with an even higher minimum ATAR of around 92) and higher numbers enrolled in both our postgraduate course work and research (PhD) programs. Thankfully, we will see some increase in staff numbers through the year.

We have already welcomed Associate Professor Leonard Bernold (engineering construction and management) and Dr Stuart Khan (sustainable engineering) to the School. Our transport initiative kicks off in May when Evans & Peck Professor of Transport Innovation Travis Waller arrives with three additional junior academic staff with transport-related expertise to be appointed through the year. An additional staff member in hydraulics, and - in lieu of Ashish Sharma’s Future Fellowship appointment – one in hydrology and water resources will also be appointed in 2011.

In addition, we have been provided with extra funding to appoint seven “teaching post-doctoral assistants” who will spend 50% of their time assisting in managing large classes and 50% of their time in further building research activity in the School.

We will do all we can to share our successes and challenges with you this year and welcome any feedback you might have. I look forward to seeing some of you at alumni events through the year.

Best wishes

David Waite
Scientia Professor and Head,
School of Civil & Environmental Engineering

The Marvellous Middle Years
Alumni Cocktail Party

Did you graduate from the School during the 1970s and 1980s? In association with some keen alumni of that period we are hosting the ‘Marvellous Middle Years’ alumni cocktail evening in October 2011, as part of the launching of the CVEN Alumni Group.

To be placed on the invitation list please contact Trish at p.tesoriero@unsw.edu.au or call 02 9385 5549

In this Issue:
1> Message from HoS
2> Civil Engineering with Architecture Industry Training 5/5 for Research School Statistics
3> Where are they now? News in Brief
4> Alumni Snapshots

School History Available only $60 (incl. p&p)

The School has not just survived; it has succeeded, as engineering educator and as research explorer. Individually and collectively embarking on a hero’s journey, supported and encouraged by one another, the story of the School – staff and students – is one of hard work, personal and social responsibility and responsiveness, underpinned by a vision of use, and ultimately, service.

(From the History of the School of Civil & Environmental Engineering)

All our Alumni are listed in our History which can be ordered from www civeng.unsw.edu.au/about/our_history or contact Trish at p.tesoriero@unsw.edu.au
School Snapshots

Five out of Five - Best of the Best: Topping the G8 Universities in Research Excellence

In the first Excellence in Research for Australia (ERA) 2010 National Report, the Australian Research Council gave the School a 5 star ranking for its performance – the highest possible ranking. The School’s research performance was described as ‘an outstanding performance well above world standard.’

With the School’s Research Centres, CIES (Centre for Infrastructure Engineering and Safety) and the WRC (Water Research Centre) leading the way, our academic and research staff have continued their cutting edge work in a wide variety of key research areas. With 267 research publications in 2010 and research income from government, industry and the ARC totalling $16.8 million, the School is an internationally respected contributor to advancements in civil and environmental engineering knowledge and applications.

The ERA ratings, compiled in 2010 for the first time, are based on a range of indicators including publications and citations, and expert review. UNSW was the only university in the leading Australian Group of Eight universities to achieve a five star ranking in the field of civil engineering.

Overall, UNSW was ranked as the State’s top performing university – with an average ranking of 4.04

Our very first Civil with Architecture students graduated in March 2011

This innovative degree was developed by School academics, V-C Teaching Excellence award winners, A/Prof Mario Attard and Dr Zora Vrcelj, along with colleagues from the Faculty of the Built Environment. One quarter of the BE CwA involves architecture courses. The BE CwA aims to produce young civil engineers with an appreciation of architectural principles, an understanding of the architect’s role in construction, and a further empowerment of their own design capacities and creativity. Dr Vrcelj says many graduates and colleagues comment “I wish that program was available when I was doing my degree!”

The inaugural award for the University Medal in the Civil Engineering with Architecture Program went to Alice Tjitradjaja (pictured), who now works for School Industry Partner Arup. The ATAR for the BE CwA in 2011 was 96.45. A/Prof Mario Attard, Associate Head of School (Academic) commented ‘The quality of the students undertaking this program is very impressive and I am excited to see how they will perform in industry.’

IAC initiative – can you help?

The School’s Industry Advisory Committee is seeking ways to assist our growing numbers of Year 3 and Year 4 students to find industrial training placements. It is a requirement of Engineers Australia that all engineering students complete 60 days industrial training as an essential component of their undergraduate degree. Companies such as Arup and Evans & Peck who have extensive experience in this area, are willing to share their road map with others. If you can help our enthusiastic and hardworking students, please contact the School Office at info@civeng.unsw.edu.au with attention to Industrial Training Coordinator. You can also place announcements at our Web Industrial Training Opportunities Notice page.

Continuing Growth in Research

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Continuing Growth in Student Numbers

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**Where are they now?**

**Professor David Pilgrim**

BE Hons 1 ’53, PhD ’67, DSc ’84
David taught at the School from 1958 – 2003, mainly in the field of Hydrology and Water Resources.

**Best memories:** In general, the mateship and support of the staff in the old Department of Water Engineering, through both good and not so good times, and the good reception that the 1987 edition of "Australian Rainfall and Runoff" received, and continues to receive, from the engineering profession. One particular episode I recall, I often had an evening graduate class, to cater for part time students – keen students as the material was relevant to their work. One night, I felt that the students seemed to be wilting so I stopped the class about ten minutes early. In fact I had lectured for almost an hour too long, as my watch was faulty. The next week I apologised but said that they should have spoken up, but no one volunteered. As it turned out, this incident served to strengthen the relationship between lecturer and students – but I wouldn’t recommend it as a useful ploy!

**I’ll never forget:** Professor Crawford Munro. While not conforming with the popular image of an academic, he professed his profession with great drive and enthusiasm, and was largely responsible for the recognition and growth of water engineering in Australia. Despite his rather gruff exterior, he had a real concern for his staff and students.

**Doing now:** I am now not involved in any formal activity but am still busy with getting my office cleared – my UNSW secretaries will appreciate that this will be a considerable job.

In 2009 David Pilgrim was inducted into Engineers Australia’s National Committee on Water Engineering Hall of Fame, joining the four previous inductees including three former UNSW staff, Professors Crawford Munro, Eric Laurenson and John Burton.

**Dr Alex Heaney**

Alex taught structures, including timber engineering, at the School from 1973 – 2000.

**Best memories:** The Versatile Structural Model Kit for student demonstrations being exploited by half of the top ten Engineering campuses in the USA. Producing one of the first usable CD-ROM texts in Australia – Timber Structures, with Dr Peter Kneen. Having an Oral component in Assessments (identifying 3 timbers and timber characteristics): years later students are still reminding me it was their only such experience.

**I’ll never forget:** The graduate already returned to Kuala Lumpur who needed his Diploma so urgently he convinced another student to receive it in the Graduation Ceremony. The 4th year Timber students who deceived me saying that termites in Vietnam were 3 times as large as Australian termites – until I discovered otherwise! The first student reminding me “you taught my father”.

**Doing now:** Upon retiring, Alex attends with other School staff retirees at luncheons usually in Willoughby; designs and produces staging for Opera Lunedi at their weekly discussions in Killara, following his OA Tristan und Isolde structural set design for the Concert Hall; experienced Gaudi’s La Sagrada Familia in Barcelona which now has an Australian architect in charge – it was consecrated, albeit not yet completed, in 2010; he spends many hours at The Con listening to music student recitals but once was convinced another student to receive it needed his Diploma so urgently he

**News in Brief**

**New Chair of IAC**

Evans & Peck Principal Ian McIntyre is the new Chair of the School’s Industry Advisory Committee, replacing Donald Macleod who stepped down after six years of wonderful service to the School, its students and community. We welcome Ian – who has already been a good friend of the School for many years, and thank Donald for his marvellous and wise support.

**New lifts:**
Alumni may be interested to know that the famous School lifts are now being replaced. One has been in this interesting process for several months now. It’s all good exercise – in walking up and down the stairs – and in patience.

**Would you like to sponsor a current School honours student?**

Our students typically support their studies with part time work, and a scholarship for just one year to really focus on their studies and final year thesis would be of great benefit to them. If you are interested in supporting this project and becoming an alumni Year 4 Champion please contact Mary O’Connell at m.0connell@unsw.edu.au

**Alumni Achievements:**

In Jan 2011 alumnus and member of the School’s Industry Advisory Committee, Dr Robert Care, (BE Hons ’73, PhD ’78) previously CEO and Regional Chair of Arup in Australasia, took up the role of Regional Chair of Arup in the United Kingdom, Middle East and Africa (UKMEA).

Also in Jan 2011, Dr Jeffrey Chen (PhD ’94) CEO of Sembcorp China’s Operation received the “Top 100 Outstanding China Economic Personage” 2010 Award. The award is presented by the Chinese central government to outstanding performers who have played a part in advising/influencing government in policy-making and given significant contributions to China’s economic development.

We would like to hear from more alumni on their achievements.

**Alumni Register**

If you wish to stay in contact with the School, please register at www.civeng.unsw.edu.au/alumni_industry_relations/alumni/.

The UNSWorld Alumni Community is also available online at www.alumni.unsw.edu.au...
Alumni Recall

Neil Blaikie
BE ’73, MIE Aust, CP Eng Chair Australian National Committee on Large Dams (ANCOLD)

School Memories: I can still remember exam questions I should have got correct! I saw my first mobile computer at the Yarramundi survey camp. We worked late in the evening reducing levels and plotting maps by hand only to find the lecturers had this machine that could do the same in seconds. We were amazed! I recall we saw the very first jumbo jet approach Mascot from the Civil Engineering Building. It was quite an event at the time. I saw that same plane in the Longreach Qantas Museum last year.

Career rewards: I have spent my whole career in the water and hydro electric power generation business (Hydro Tasmania). Contributing to building, operating and maintaining essential public infrastructure that result in the quality of life we have in Australia is a huge reward for me. We take for granted, in Australia, what so many countries can only dream about. Engineering is a noble profession that builds and runs our nation. It has provided me with the opportunity to visit amazing places, have fabulous experiences and meet outstanding people. It has been, and still is, a wonderful journey.

David Carolan
BE Hons ’81, MEngSc ’89 Director, Taylor Thomson Whitting

School memories: Fellow students bonding through working together as teams to complete assignments. Lecturers Ken Faukles (clear thinking on concrete design and enthusiasm for it); Alex Heaney (how he quizzed us on the shapes of bending moment diagrams and deflected shapes); Ray Lawther (laid back analysis wiz with a cool MG); Peter Kreen (who supervised my Masters project on the analysis of cable structures). Being told in first lecture in Statics that ‘this was the calling subject and 50% of you would fail’. Least liked - statistics lectures. Sneaked off to the Blockhouse and applied my physics & dynamics skills (deflected shapes); Ray Lawther (laid back analysis wiz with a cool MG); Peter Kreen (who supervised my Masters project on the analysis of cable structures).

UNSW was good at teaching us how to think; how to problem solve which I think is much more important for a uni than just delivering content.

Career rewards: Starting my firm’s first overseas office (in Jakarta) where I caught up again with School lecturers Vir Murlti and Peter Kreen. Continuing relationships, personal & professional, that came from that time overseas. Working with a creative team that turns a sketch on a page into a building. Seeing the fruits of my labour in concrete (literally). I feel very fortunate to still be working in a job where I ‘do’ engineering every day.

A/Prof Mehreen Faruqi
MEngSc ’94, PhD ’00 Academic Director; Master of Business and Technology ASB, UNSW

‘Civil Engineers can do anything and everything!’ I can remember my Dad, also a civil engineer, repeating this line quite often.

School memories: I did my post graduate study (Master and PhD) in environmental engineering. We had an amazing cohort of research students from all over the world. The professional and social networks we formed continue to this day. My lecturers, in particular Stephen Moore and Ronnie Harding, are passionate teachers and really inspired me.

Career rewards: I have worked in a variety of organisations including local government, consulting firms and universities. I believe that Engineers today need to take a leading role in delivering current and future human needs, addressing complex environmental challenges such as climate change and ecosystem degradation, while understanding the ‘exquisite interdependence’ of science and technology with business, politics and society. What inspires me most today, are my own students whose diverse views and expertise paves the way for creative and innovative thinking - the only way to lead change.

Andrew Johnson
BE Hons ’95
Senior Associate, Sydney Buildings Design Group 1, Arup

School memories: Ray Lawther’s classes were always entertaining – and whilst (from my perspective!) I didn’t always understand his lectures at the time, I found myself afterwards - in exams and the early years of my professional career - having moments when the light switched on or the penny dropped. Thanks Ray! Ian Gilbert for his knowledge and tireless effort to improve the design of concrete structures. Skipping lectures and tutes to get to the Village Green for cricket training – a small price for a learning-life balance.

Career rewards: It is an exciting and important time to be an engineer. The associated impacts from climate change and population growth - such as sufficient food and water supply, and necessary changes to the built environment and the way we live today - will require creative and innovative solutions from both today’s and tomorrow’s engineers. The most rewarding moments are always seeing designs realised – in particular those where problems have been solved creatively, collaboratively, and functionally. The most challenging is to maintain the mindset and environment to realise continual innovation and creativity.

Ian McIntyre
BE Hons 1 ’74 Practice Leader, Contract Services and Principal, Evans & Peck

School Memories: I have always felt a debt to David Howell for the General Systems Thinking perspective that I have utilised to good effect ever since. The ability to use the General Systems paradigm to structure a sensible formulation of new fields, issues and problems has been a recurring theme throughout my career. I also clearly remember the ease with which Professor Valentine made the study of Hydraulics simple and straightforward and I have sought to emulate his explanatory ability ever since.

Career Rewards: I have never regretted my choice of Civil Engineering as a career. I was the third person in Evans & Peck and I have found its development and maturing over the last 24 years to be very satisfying, particularly in regard to the high calibre of people we have attracted into the business, especially the excellent and bright “twenty somethings” who will lead the organisation in the future. Individuals can achieve little except as part of teams and I have found the membership and leadership of project teams that genuinely operate as integrated teams to be very rewarding and satisfying. Engineering is, above all else, a people business.

Athena Venios
BE Hons ’97 Associate Director at AECOM

School memories: Great environment in which to study, make friends, party and enjoy uni life. The Engineering Balls were particularly memorable, and as for the boat races: whilst not conducive to responsible drinking habits, they confirmed that your lecturers too, can drink, and they turned out ok! Least enjoyable? Long, boring lectures held in old, uncomfortable lecture theatres.

Career Rewards: Nowadays I work on a variety of major infrastructure projects. Civil engineering is a very rewarding profession as you see your work come to fruition. I was part of the design team for the Eastern Distributor and I drive through it with pride. I also enjoy bumping into fellow UNSW graduates who are both colleagues and clients, and sharing stories on how good life was back at UNSW. It really helps build great professional relationships.

Dan Stojanovich
BE ’71 MBA ’74 Advisor, Journalist, writer

School memories: I was a college resident for the first couple of years (Basser and then Baxter) before heading for the wilds of Coogee in a flat with a few mates. All the usual indulgences... including a few rock & roll bands. As for remembering things clearly... well, you had to be there. It was the 60’s after all. But I do remember various lecturers, trip to the Snowy Mountains and much more – all very fondly. Am still in contact with several engineering friends from those days and expect to remain so.

Career Rewards: I confess I have stayed... spending the bulk of my professional career “on the dark side” – the communications business. But I have worked in civil engineering, urban planning, merchant banking and property. The engineering experience has enriched everything I’ve done. It was well worth it. I urge engineers to take their insights and abilities to the streets, to the parliaments and the media. It is no longer up to the politicians and bean counters to tell engineers what to do; it is time engineers told them what needs to be done as well as why and how to do it.
