UNSW SYDNEY | Australia's Global University

Civil and Environmental Engineering
About Us

From the Head of School...

Engineers have always been people of action – driven to create, to solve problems, to make things happen, and to make a difference. UNSW Civil & Environmental Engineering alumni, staff and students are no exception.

Internationally ranked as the premier School of our kind in Australia and one of the world's top twenty, we continue to forge ahead with innovative research fields, new educational courses, and an ever expanding network of industry connections.

The School is committed to advancing a more prosperous, safe and just society. Our courses emphasise sustainability and a consideration of engineering impacts, with an integrated and inter-connected view of the world.

Our Centres and discipline groups provide focal points for our researchers to contribute to global efforts in innovative civil, environmental and geospatial engineering research. With strong interdisciplinary and external industry collaborations - and with mentorship provided to our great young researchers – we aim to continue our leadership in research excellence.

A strong School does not happen without the efforts and collegiality of its staff; academic, research, professional and technical. I thank them all for their amazing dedication and hard work.

PROFESSOR STEPHEN FOSTER

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Cricos Provider Code: 00009G

Fast Facts ...

ENROLMENTS

- OVER **2,000** UNDERGRADUATES ENROLLED
- OVER **800** MASTERS STUDENTS
- **180** PhDs

INTERNATIONALLY RANKED NO 1 SCHOOL IN AUSTRALIA

(AWRU & QS WORLD UNIVERSITY RANKINGS)

STAFF

- ACADEMIC STAFF: **50**
- PROFESSIONAL STAFF: **28**
- RESEARCH STAFF: **80**

WORLD RENOWNED

RESEARCH FACULTIES AND PROGRAMS

- **8 RESEARCH CENTRES** AND **HUBS**

WIDE

CHOICE OF DEGREE PROGRAMS

HIGHEST

GRADUATE STARTING SALARIES OF ALL G08 UNIVERSITIES

70 YEARS OF EXPERIENCE

EXPERT IN CONSTRUCTION MANAGEMENT, ENVIRONMENTAL ENGINEERING, GEOTECHNICAL ENGINEERING, HUMANITARIAN ENGINEERING, STRUCTURES AND MATERIALS, SURVEYING & GEOSPATIAL SCIENCES, SUSTAINABILITY, TRANSPORT, WATER, WASTE MANAGEMENT.

LARGEST FACULTY OF ENGINEERING IN AUSTRALIA

$1 BILLION INVESTED IN NEW FACILITIES IN FIVE YEARS

STRONG INDUSTRY PARTNERSHIPS

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W http://www.civeng.unsw.edu.au/

Research Excellence...

The School is at the forefront of innovative, original and applied research across the breadth of civil, environmental and geospatial engineering.

With a **5 out of 5 government research (ERA) ranking, we have won** 146 highly competitive Australian Research Council (ARC) grants and fellowships totalling **$53M** in order to pursue our investigations into issues of national and global importance.

EIGHT RESEARCH CENTRES AND HUBS

ACCARNSI

Australian Climate Change Adaptation Research Network for Settlements & Infrastructure

CIES

Centre for Infrastructure Engineering & Safety

CIRI

Construction Innovation and Research Initiative Engineering & Safety

CWI

Connected Waters Initiative

rCITI

Research Centre for Integrated Transport Innovation

SAGE

Surveying and Geospatial Engineering Research

SEI

Sustainable Engineering Research

WRC

Water Research Centre

Teaching Excellence...

The School has been a leading provider of engineering education for over sixty five years. We actively promote a culture of teaching excellence.

More than a quarter of our academic staff have won Teaching Excellence Awards.

Our School Teaching Initiative and Teaching Equipment Grant Schemes provide our innovative academics with resources that enhance their teaching and the student experience.

ENROLMENTS

- Over 2,000 Undergraduates enrolled in 16 different degree programs
- Over 800 Masters students in eight specialisations

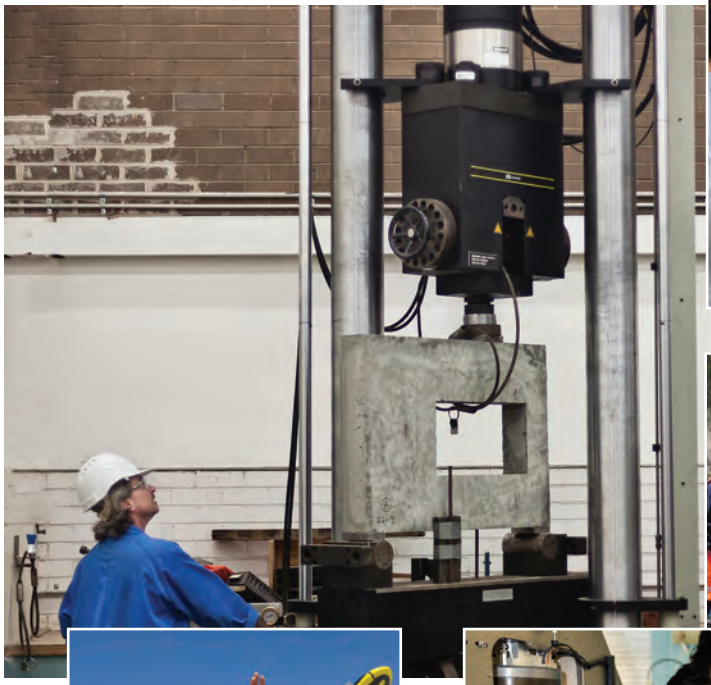
In the 21st century, the School is moving towards a blended learning approach - utilising creative, efficient and educationally sound digital teaching & learning methods as well as continuing our high quality embodied methods – lectures, laboratories, site visits and workshops.

Industry Connections...

The School has strong active links with industry and is very committed to continuing and developing these ties. Each year our research centres work with over 100 industry and government organisations on specific industry related projects.

The importance we place on the movement of our research to practice cannot be overstated. It is fundamental to who we are, and what the School is about.

Our Industry Advisory Committee (IAC) represents a broad cross section of relevant industry sectors at a senior and influential level, while through our Industry Partners Program, relationships between industry and our students are maintained and nurtured.



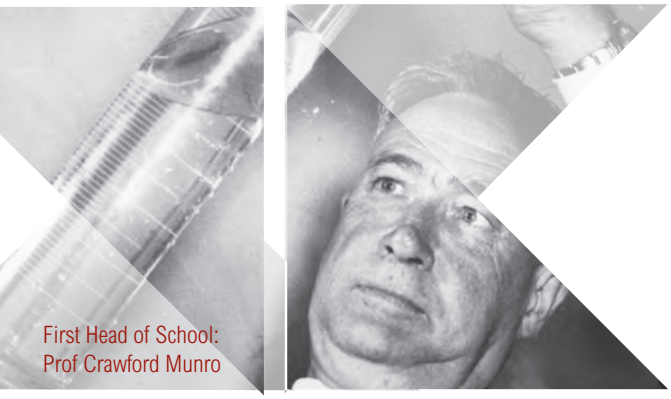
COMMUNITY OUTREACH

With our industry partners' valued support we have been able to raise the profile of the engineering profession through various projects including:

The provision of a Primary School prize in mathematics - to encourage a lifelong interest in mathematics as one of the key requirements for a rewarding and fulfilling engineering career. Currently 90 NSW schools participate with over 250 young students receiving prizes.

With the support of the NSW Dept of Education, we have developed a fantastic Year 10 work experience week which takes up to 60 students a year to various engineering sites and offices- informing and inspiring the next generation.

Rich History



First Head of School:
Prof Crawford Munro

1948 Department of Civil Engineering had enrolled its first nine students in the new BE Civil degree

1949 The NSW University of Technology was proclaimed by NSW State Parliament on July 1 1949.

1954 Stan Hall initiates postgraduate coursework subjects to inform and update practising civil engineers.

1958 MTech formally established.

1959 Water Research Laboratory founded at Manly Vale. First director, Rupert Vallentine.

1961 Stan Hall and Ron Woodhead's book *Frame Analysis* published. 'a monumental contribution to the discipline of structural engineering internationally.'

1966 New School building on Kensington campus opens August 22

1967 MTech becomes MEngSc

1967 Rupert Vallentine publishes the Penguin classic, *Water in the Service of Man*

1970 Dept of Surveying becomes its own school

1971 Dept of Civil Engineering Materials (later Geotechnical Engineering) founded.

1973 Dept of Engineering Construction & Management founded

1974 Whitlam Government abolishes university tuition fees.

1975 UN International Year of Women and School finally has its first woman graduate: Helen Pearson

1975 UNSW allows electronic calculators to be taken into exams

1976 Bob Warner, Vijay Rangan & Stan Hall publish *Reinforced Concrete*

1979 Bob Warner & Ken Faulkes publish *Prestressed Concrete*.

1981 Department of Transport Engineering founded.

1987 *Australian Rainfall and Runoff* is published, ed David Pilgrim, and mainly written by School staff. 'the greatest widespread impact on water engineering in Australia of any book authored by Australians.'

1987 Centre for Wastewater Treatment founded.

1989 Hawke Government introduces HECS.

1991 BE Environmental introduced, at last brings in women students.

1993 School offers MEngSc specialisations by distance.

1996 School changes its name to the School of Civil and Environmental Engineering.

1998 Departments disestablished – School administered as a single unit

2007 Centre for Infrastructure Engineering and Safety (CIES) founded.

2007 Civil with Architecture introduced. By 2012 its UAI was 95.9.

2008 Connected Waters Initiative (CWI) Research Centre founded

2009 CWWT and WRL combine to form UNSW Water Research Centre.

2011 Research Centre for Transport Innovation (rCITI) launched.

2013: Surveying returns to the School

2016-current: School consistently internationally ranked as first of its kind in Australia.

Just Some of Our Inspiring Alumni...

"Imagine a world where we no longer use a multiple of our available resources but live within our environmental resources. Imagine a world where we don't pollute the air, the sea and spread our waste in a thin layer that is never recoverable nor recyclable. Imagine a world where a third of the world's population do not lack clean water or proper sanitation. Can you? Can you really?

If we are to live in such a world it will be Civil and Environmental Engineers who will play a disproportionate part in bringing it about."

-Robert Care

Prof Robert Care, AM
BE Civil (Hons 1) 1973, PhD 1978 UNSW
Professional Engineer of the Year - Engineers Australia 2014
UNSW International Alumni of the Year 2013
EA Top 100 - 2008, 2009, 2010, 2011, 2013
Fellow Royal Academy of Engineering 2015

"Engineering must return to why it exists. It is not about things, it is about people. Designing with social purpose, concentrating on projects that will make our world safer, healthier, and more resilient within financial and ecological constraints: it is time for this element of engineering to come to the fore."

Dr Mehreen Faruqi, FIEAust
Greens NSW MP
BE Civil (Hons) Lahore, 1988
MEngSc (Environmental Management) UNSW 1994
PhD (Environmental Engineering), Winner: 2013 UNSW Engineering Judy Raper Award for Leadership

"Civil Engineers can do anything and everything!' But we also need to change the way we do things- to address complex environmental challenges, and to ensure that engineering solutions are enhanced and informed through cultural, social and political inputs."

Dr Kourosh Kayvani
MEngSc (Civil) 1992, PhD (Civil) 1997 UNSW
Managing Director – Design, Innovation & Eminence, Aurecon
Visiting Professorial Fellow at UNSW
Director of the Australian Steel Institute

"21st century engineers need to effectively connect innovative thinking, software, hardware and 'heart-ware'. We need more engaging, persuasive, collaborative or co-creative engineers – having a solution purely rooted in being technically correct is no longer enough."

Narelle Underwood
BE Hons 1 Surveying and Spatial Information Systems, '09
NSW Surveyor-General

"There is a severe shortage of Registered Land Surveyors in Australia ...With technology changing so rapidly, we really don't know what will be happening in five or ten years...which makes this profession extremely exciting."

William (Bill) Cox
BE Civil Hons 1988
Managing Director – Australia and New Zealand, Aurecon

"...Never, ever stop learning; keep an open mind to the endless possibilities that your education has provided. Be confident enough with the education and training that you have received to expand your capabilities and explore career possibilities that excite you. Embrace change - or you will be left behind!..."

Athena Venios
Director, Greater Sydney Project Office, RMS
BE (Civil) Hons 1997
Winner: 2016 Judy Raper Award for Leadership in Engineering

"...For me leadership is about inspiring and lifting the capability of those around you, enabling them to achieve their true potential. I've had some great mentors over the years and I am delighted that I've been able to fulfil that role for others in return."


FUNDERS OF ACADEMIC POSITIONS
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SCHOOL INDUSTRY SUPPORTERS
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GEOTECHNICAL & ENVIRONMENTAL ENGINEERS
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