

ANNUAL REPORT 2016

About us

The Australian Council of Engineering Deans (ACED) has formally been in operation for more than 20 years, with the stated mission "*To promote and advance engineering education, research and scholarship on behalf of Australian universities through a range of activities including engagement with relevant organisations.*"

ACED does this in the national and international interest, which for education and research includes assuring the public that engineering graduates will conduct their work in the public interest with due regard for human safety and the sustainability of the environment.

ACED is an incorporated association whose members are the Australian public universities that provide undergraduate and postgraduate degree programs and research in engineering.

The Council elects a President for a two year period. The President is supported by the Executive Committee, whose members are elected by the Council.

The Council meets in full twice a year (Spring and Autumn).

ACED has strong links with the Australasian Association of Engineering Education (AaeE) whose members are primarily engineering academics in Australian and New Zealand universities.

ACED sponsors the annual AaeE award for Excellence in Teaching.

ACED invites a representative of the New Zealand Council of Engineering Deans to attend Council meetings. ACED is a Chapter Member of the Global Engineering Deans Council (GEDC)

ACED also has strong links with Engineers Australia (EA). Representatives of the EA Accreditation Centre attend all ACED meetings to inform and discuss with members developments in the national engineering program accreditation system, and matters of importance arising within the International Engineering Association (IEA) that has oversight of the international engineering education Accords of which EA is a member.

Governance

Executive Committee (at Dec 2016)

President:	Professor John Wilson
Deputy President:	Professor Ian Burnett
Past President:	Professor Moses Tade
Members:	Professor Friso de Boer Professor Scott Smith Professor David Lowe (representing the ADTL Group) Professor Roger Lewis (representing the ADR Group)
Executive Officer:	Em Professor Doug Hargreaves AM
Consultant:	Em Prof Robin King

Activities

Guest speakers at Council Meetings

- Hon Karen Andrews MP, Asst Minister for Science
- Ms Sally-Ann Williams, Google Australia
- Dr Alan Finkel, Chief Scientist
- Mr Jeff Connolly, Siemens Australia
- Mr Richard Young, for Indigenous engineering
- Ms Alexandra Sinickas, Australasia Research leader, Arup

Projects

During 2016, ACED supported the following small projects with funding, up to \$10,000.

- Curriculum and Assessment Sharing (Professor Roger Hadgraft, University of Technology Sydney and Professor David Lowe, University of Sydney)
- Peer Review of Assessment Network (Assoc Prof Bouchra Senadji, QUT is ACED's link to Dr Sara Booth who coordinates this project)
- Sustainability Engineering Challenge (Assoc Prof Michele Rosano, Curtin and Prof Roger Hadgraft, University of Technology Sydney).
- Professional Engineering Practice in undergraduate education (Prof Bill McBride, Uni Newcastle).

ACED compiled and published (see website) the *Australian Engineering Education Student and Staff Statistics*, from data purchased from the Australian Higher Education Statistics collection and other national sources. Recent enrolment and graduation numbers and trends are provided later in this report.

Representation on other bodies

ACED participates in the reference group for the *F-10 Design and Technology* school curriculum implementation, convened by the Australian Curriculum, Assessment and Reporting Authority (ACARA). Together with *Digital Technologies*, this curriculum is part of the compulsory school curriculum, and introduces and develops engineering concepts and practice.

Tripartite Committee.

Two meetings of Engineers Australia (EA), Academy of Technological Sciences and Engineering (ATSE) and ACED were held in 2016. The main topics were related to national issues of common interest such as sustainability and climate change, gender diversity and how we can work collaboratively to achieve more females in engineering, getting a greater uptake of students into the STEM subjects, supporting initiatives to get more indigenous perspectives and students into engineering and an alternative model for EA's '12 weeks exposure to professional engineering practice'.

Presentations at national and international conferences

Male S, King RW and Hargreaves DJ (2016): "Drivers and Barriers to Industry Engaging in Engineering Education ", Turku, Finland, 12-16 June 2016.

EO Hargreaves represented ACED in a forum at the AAEE 2016 Conference, 'Futuring engineering education'

Submissions to national reviews

ACED responds to requests to respond to the Australian government's consultation processes on matters that relate to engineering education and research. Responses are normally then published on the ACED website. In 2016, ACED made the following responses.

- ACED Response to Tertiary Education Quality Standards Agency (TEQSA) on Work-Integrated Learning (WIL); November and December, 2 responses.
- ACED Response to Skilled Occupations List - November 2016
- National Infrastructure Roadmap Capability Issues paper" (September 2016) – submitted to the Office of the Chief Scientist
- Mapping Professional Accreditation in the context of Higher Education regulatory and Standards Frameworks" (August 2016) – submitted to PhillipsKPA
- Engagement and Impact Assessment Consultation (June 2016) – submitted to Australian Research Council
- ACED submission to the House of Representatives Standing Committee on Education and Employment Inquiry into innovation and creativity: workforce for the new economy. (March 2016) ACED was also represented at the committee hearing in Sydney to reinforce the importance of engineering as one of the key professions for technological creativity and innovation.

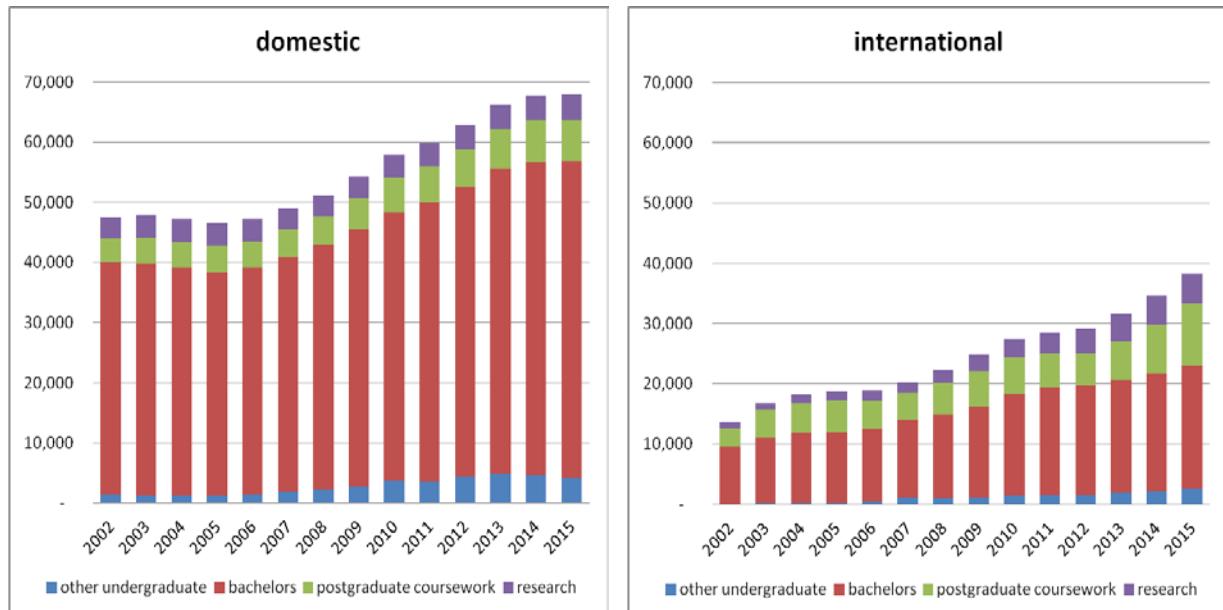
Letters of support for national projects: Nil

Financial Report

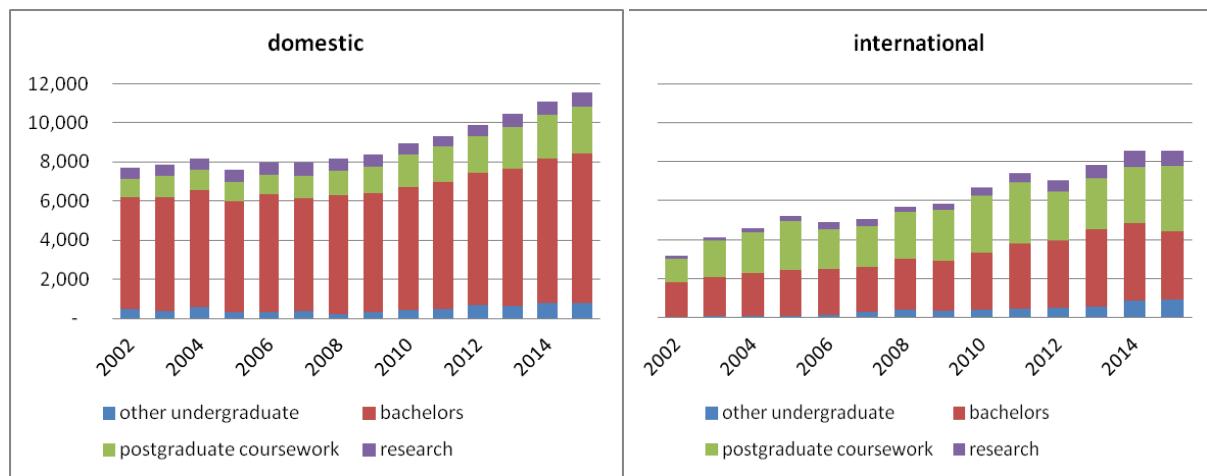
Opening Balance (1 Jan 2016)	\$ 121,271
Income (members' dues + interest)	\$
Total Expenditure	\$
Retained surplus (31 Dec 2016)	\$

Student enrolments and graduations, 2002 – 2015

In 2015, there were more than 100,000 students enrolled in higher education qualifications in engineering. Almost all are at ACED member institutions. International enrolments increased significantly over those of the previous year.



For the first time, graduations in engineering exceeded 20,000 in 2015. International graduates constituted 42.5% of the total graduating cohort, with recent growth in postgraduate coursework degrees. Women constituted 15.5% of the domestic graduates and 19.7% of the international graduates.



Looking to the future

- We will continue to support projects (usually seed funding to \$10 000) that are deemed to be innovative and align with the mission.
- We will update the website as it is not particularly user-friendly.
- We will continue to liaise with relevant government bodies and respond to issues and consultative papers.
- We will continue liaison with other organisations such as Engineers Australia (EA), the Academy of Technological Sciences and Engineering (ATSE), Global Engineering Deans Council (GEDC), the International Engineering Alliance (IEA), World Federation of Engineering Organisations (WFEO), the Federation of Engineering Institutions in the Asia Pacific (FEIAP) as well as various industry bodies.
- We will continue to collect and analyse Australian Engineering Education Student and Staff Statistics from national data collections
- We will develop and publish Position Papers on key matters

Contact us

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website: www.aced.edu.au