

ENGINEERS AUSTRALIA Australian Engineering Accreditation Centre

REPORT TO AUSTRALIAN COUNCIL OF ENGINEERING DEANS 18 April, 2008

Alan B Bradley – Associate Director, Accreditation

1. THE ACCREDITATION TEAM

Engineers Australia fulfils the role as the national accreditation authority for engineering education programs through its Australian Engineering Accreditation Centre in Melbourne.

The accreditation team comprises:

- Associate Director – Emeritus Professor Alan Bradley (full time),
- Accreditation Manager - Ms Glenda Graham (part time),
- Accreditation Officer - Ms Jill Kiley (part time).

To ensure robustness of the accreditation function and to provide diversification of expertise, the Board has nominated four Accreditation Visit Managers who are individually contracted to support the Associate Director Accreditation on particular accreditation visits. The Accreditation Visit Managers are:

- Emeritus Professor Neil Page FIEAust CPEng,
- Emeritus Professor Vic Gosbell FIEAust CPEng,
- Dr Jeff Stewart FIEAust CPEng,
- Emeritus Professor Mike Brisk FIEAust CPEng,

2. REVISED MEMBERSHIP - ACCREDITATION BOARD

2008 membership Accreditation Board membership:

Emeritus Professor Robin King FIEAust CPEng FIET, (Chair)
Mr Bronte Stoud FIEAust CPEng, National Vice President (Education and Assessment)
Ms Shireane McKinnie FIEAust CPEng, Head, Electronic & Weapon Systems Division,
Department of Defence
Mr Richard Bevan FIEAust CPEng, Chief Executive Officer, Transend Networks Pty Ltd
Mr Neville Power FIEAust CPEng, Chief Executive Australian Operations, Thiess Pty Ltd
Dr John Yeaman FTSE FIEAust CPEng, Chairman, Pavement Management Services
Dr Maurice Allen FIEAust CPEng, Director Education and Assessment
Emeritus Professor Alan Bradley FIEAust CPEng, Associate Director Accreditation
Secretary to the Board: Ms Jill Kiley, Accreditation Officer

In response to a suggestion from ACED, the Board is currently reviewing its Terms of Reference with the intention of seeking Council approval to increase membership to include an ACED academic nominee.

The work of the Board is supported by the Accreditation Consultative Committee, a joint committee of Engineers Australia, the Australian Council of Engineering Deans (ACED) and the Australian Association of Engineering Education (AAEE).



3. ACCREDITATION OUTCOMES 2007

Accreditation panels appointed by the Board undertook full general review visits to engineering schools at each of the following universities during 2007:

- o Edith Cowan University
o Charles Darwin University
o The University of Adelaide
o The University of Queensland
o Queensland University of Technology
o Central Queensland University
o The University of Western Australia
o University of Western Sydney
o Monash University - Kuala Lumpur Malaysia campus
o University of Ballarat

In addition, panels were appointed to conduct desk top reviews of new program offerings implemented at:

- o Curtin University
o Flinders University

Appointed accreditation panels visited the following universities to consider new program offerings:

- o The University of Melbourne (3+2 Melbourne model developments)
o Deakin University - in partnership with KDU College at Penang and Kuala Lumpur, Malaysia

The accreditation Board met four times during 2007, through teleconference and two face to face meetings. The following table summarises the outcomes of the 2007 accreditation visits above.

Table with 4 columns: Total no of programs considered (single degree only), Provisional accreditation accorded, Full accreditation accorded, Accreditation deferred, pending requested action by the school. Values: 130, 50, 61, 15.

4. VERIFICATION OF AMS AT THE SYDNEY ACCORD LEVEL

The Board, over the past two years has developed an Accreditation Management System for the evaluation of programs at the level of Engineering Technologist. The system documents were submitted to the biennial meeting of the Sydney Accord at its meeting in June of 2007, and a formal verification visit occurred during the visit to Central Queensland University over the period 28-29 August, 2007.

A draft report has been provided for this monitoring visit and will be tabled for the consideration of signatories at the 2009 Sydney Accord meeting. The report provides a favourable outcome for the Engineers Australia accreditation system and recommends a 6-year substantial equivalence recognition.

5. INTERNATIONAL OUTREACH

In recent years Engineers Australia has become more influential in the affairs of the international engineering accords and mobility forums through the International Engineering Alliance. At the June 2007 meetings the Chair of the Accreditation Board, Emeritus Professor Robin King was appointed as the Deputy Chair, Sydney Accord. Dr Peter Greenwood completed his term as Chair of the Washington Accord.

Key outcomes of the 2007 meetings were the admission of the Institute of Engineering Education Taiwan and the Accreditation Board for Engineering Education Korea to full signatory status with the Washington Accord. The All India Council for Technical Education, The Institution of Engineers, Sri Lanka and the



Russian Association for Engineering Education were admitted as provisional signatories. The Accreditation Board for Engineering and Technology – USA was admitted as a provisional signatory to both the Sydney and Dublin Accords.

An Engineers Australia delegation, including the Director, Associate Director and Accreditation Board Chair will attend the International Engineering Alliance Workshops to be held in Singapore in June of 2008.

Engineers Australia is continuing its role as Chair of the Working Party on Distance Education for the education accords and is participating in a working group addressing the changing standards in engineering education at the professional engineer level. Engineers Australia will also continue to Chair an international mentoring team working with the Board of Engineers Malaysia as it continues in its transition from provisional to full signatory status with the Washington Accord.

In 2008 Engineers Australia the Associate Director Accreditation will Chair international monitoring teams reviewing the accreditation systems implemented by the Institution of Professional Engineers New Zealand and Engineers Canada. Engineers Australia is also working with the China Association for Science and Technology as it develops its accreditation systems and seeks provisional signatory status with the Washington Accord. The Associate Director Accreditation will undertake a monitoring visit to China in June 2008.

6. OTHER 2008 ACTIVITIES

1.1 Professions Australia

The Australian Engineering Accreditation Centre is continuing its involvement with Professions Australia, working with other Australian professional bodies to share strategies and to develop standards.

1.2 Accreditation Workshop

A national Accreditation Workshop was held on 21 February of 2008. A wide range of attendees came from 15 separate Australian universities. The workshop focused on the accreditation processes, international relationships and the outcomes based approach to educational design. Presentations by Emeritus Professor Robin King and Associate Professor Roger Hadgraft supplemented the accreditation segment and opened an afternoon discussion forum dealing with the recommendations of the Carrick Review report.

1.3 Accreditation Cost Recovery

Under current arrangements Engineers Australia recovers, through university subscriptions, a fraction of the cost of undertaking accreditation of relevant degree programs offered in Australia by Australian engineering schools. Full cost recovery only occurs for travel expenses associated with the additional task of evaluating off-shore program implementations. The remainder of the costs are covered from the general revenue of Engineers Australia, principally membership subscriptions. The share of costs borne by the university subscriptions is being incremented annually towards a target of 50% cost recovery to occur in the 2009-2010 financial year.

For the 2007-2008 financial year, universities have been collectively invoiced for a total of 30% of the accreditation operating budget. Each subscription includes a fixed charge and a variable charge, with the latter dependent on the number of academic programs currently accredited.

1.4 Accreditation Visit Calendar 2008

A total of 13 accreditation visits (general review, interim and new program visits) are currently scheduled for Australian home campuses during 2008. In addition there are 5 offshore visits booked during second semester to consider undifferentiated programs offered by Australian Universities through branch



campuses or partnerships in Singapore and Malaysia. The 5-year general review visit schedule is provided in the Attachment.

1.5 Accreditation at the Engineering Officer Level

The Australian Engineering Accreditation Centre is progressing its development of an accreditation management system for programs at the level of Engineering Officer. Project work is being negotiated with the TAFE NSW Curriculum Development Unit and also with Manufacturing Skills Australia to develop umbrella guideline templates that will assist program developers, implementing programs at the Engineering Officer level against the National Training Packages.

Associate Degrees implemented at RMIT University and at Central Queensland University have been considered for accreditation in recent months.

1.6 Washington Accord Monitoring – Engineers Australia

Engineers Australia's accreditation processes will be evaluated by a Washington Accord monitoring team in 2009 and planning is underway to set up university visits that can be appropriately scheduled for this activity around August.



ATTACHMENT

FIVE YEAR ACCREDITATION CYCLE – HOME CAMPUS GENERAL REVIEWS

Institution <i>(In the case of some universities, there are interim reporting and possibly interim visit requirements which overlay the general review cycle).</i>	Next scheduled general Review
Monash University (Clayton Campus)	2008
Monash University (Gippsland campus)	2008
Swinburne University of Technology	2008
The University of Newcastle	2008
University of Tasmania	2008
University of Technology, Sydney	2008
University of Wollongong	2008
Victoria University	2008
Macquarie University	2008
University of the Sunshine Coast	2008
La Trobe University (Bundoora campus)	2009
La Trobe University (Bendigo campus)	2009
Murdoch University	2009
RMIT University	2009
The University of Melbourne	2009
University of Sydney	2009
Australian Maritime College	2010
Curtin University of Technology (Bentley Campus)	2010
Curtin University of Technology (WASM)	2010
Deakin University	2010
Flinders University	2010
Griffith University (Gold Coast Campus)	2010
Griffith University (Nathan Campus)	2010
Murdoch University	2010
The Australian National University	2010
University of Ballarat	2010
University of South Australia	2010
Central Queensland University	2010
ADFA@UNSW	2011
James Cook University	2011
The University of New South Wales	2011
University of Southern Queensland	2011
Charles Darwin University	2012
Queensland University of Technology	2012
The University of Adelaide	2012
The University of Queensland	2012
The University of Western Australia	2012
University of Western Sydney	2012
Edith Cowan University	2012