

14<sup>th</sup> AaeE Conference and the 9<sup>th</sup> Australasian WIE Forum

Final Program

SUNDAY, 28 SEPTEMBER 2003			
1730-1830: EARLY REGISTRATION and WELCOME RECEPTION <i>Storey Hall Foyer</i>			
DAY 1 MONDAY, 29 SEPTEMBER 2003			
0800-0900	REGISTRATION <i>Storey Hall Foyer</i>		
0830-0900	Day 1 chairs to meet with Day 1 presenters <i>Seminar Room 1</i>		
0900-0930	INTRODUCTION from A/Prof Allison Brown and WELCOME from Professor Ruth Dunkin, RMIT Vice Chancellor <i>Lecture Theatre</i>		
0930-1030	INVITED SPEAKER: Tricia Caswell <i>Lecture Theatre</i>		
1030-1100	MORNING TEA - TRADE EXHIBITION <i>Storey Hall Foyer</i>		
1100-1230	<p><i>SESSION 1- Lecture Theatre</i> <u>Flexible Learning</u> <b>Chair: Prof James Lambert</b></p> <p><b>Mark Shortis</b> <i>A review of the program and effectiveness of "mainstreaming the digital revolution" at the University of Melbourne</i></p> <p><b>David Dowling</b> <i>Inducting New Academic Staff into a Flexible Education Environment</i></p> <p><b>Lesley Jolly</b> <i>Using an Electronic Tool to Encourage Pedagogical Change</i></p> <p><b>Paul Gregg</b> <i>Web-based Results and Assignment Tracking System (WebRATS)</i></p>	<p><i>SESSION 2- Seminar Room 1</i> <u>Sustainable Engineering Education</u> <b>Chair: Aaron Blicblau</b></p> <p><b>Timothy L.J. Ferris</b> <i>A Technician is Half an Engineer – Overseas Students and Advanced Standing in Engineering Degrees</i></p> <p><b>Hema Sharda</b> <i>Why Australia continues to be a Second Choice for Full-Fee Paying Indian Students?</i></p> <p><b>Hema Sharda</b> <i>Developing Teaching, Research and Industry Linkages with India</i></p> <p><b>Brian Lovell</b> <i>Academic Performance of International Students in Electrical Engineering at the University of Queensland</i></p>	<p><i>SESSION 3 - Seminar Room 3</i> <u>Graduate Attributes</u> <b>Chair: Prof Allison Brown</b></p> <p><b>William Bons</b> <i>Re-engineering Engineering Curricula for Tomorrow's Engineers</i></p> <p><b>Vojislav Ilic</b> <i>Ethics in an Engineering Curriculum</i></p> <p><b>Vladis Kosse</b> <i>Role Modelling Teamwork Through Teaching of Mechanical Design</i></p> <p><b>Roger Hadgraft</b> <i>Defining Graduate Capabilities for Chemical Engineers at RMIT</i></p>
1230-1330	LUNCH - TRADE EXHIBITION <i>Storey Hall Foyer</i>		

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1330-1500	<p><i>SESSION 4 - Lecture Theatre</i>  <u>1<sup>st</sup> Year Issues</u>  <b>Chair: Prof Frank Bullen</b></p> <p><b>Caroline Crosthwaite</b>  <i>Starting to Belong: an O-Week Introduction to Engineering &amp; Sustainability</i></p> <p><b>George Banky</b>  <i>Engaging Students for Active Learning: Structuring a Project Subject for First Year Engineering Students</i></p> <p><b>Michael West</b>  <i>Cultivating generic capabilities to develop future engineers: an examination of 1st year interdisciplinary engineering projects at the University of Sydney</i></p>	<p><i>SESSION 5- Seminar Room 1</i>  <u>Sustainable Engineering Education</u>  <b>Chair: Prof David Dowling</b></p> <p><b>Peter O'Shea</b>  <i>A continuous improvement strategy for undergraduate teaching in higher education</i></p> <p><b>Peter O'Shea</b>  <i>Teaching and Learning Collaboration Between the ATN Universities: A Case Study</i></p> <p><b>Pj Radcliffe</b>  <i>Sustaining Excellence by Eliminating Plagiarism</i></p> <p><b>Robert Brown</b>  <i>Combating Student Cheating in Academia</i></p>	<p><i>SESSION 6 – Seminar Room 3</i>   <b>TAFE Frontiers Workshop</b></p>
1500	AFTERNOON TEA - TRADE EXHIBITION - <i>Storey Hall Foyer</i>		
1530-1700	<p><i>SESSION 7- Lecture Theatre</i>  <u>Global Sustainability</u>  <b>Chair: Caroline Crosthwaite</b></p> <p><b>Heather Stonyer</b>  <i>Engineering Education: Sustainability in the 'knowledge' economy</i></p> <p><b>Josef Rojter</b>  <i>Gaining of Sustainability Consciousness in Engineering Curriculum through Materials Education</i></p> <p><b>David Radcliffe</b>  <i>Towards a Global Sustainability Knowledge Network</i></p> <p><b>Kym Dorrestyn</b>  <i>In Transport the Small Picture is becoming the Big Picture</i></p>	<p><i>SESSION 8 - Seminar Room 1</i>  <u>Active/Problem-based Learning</u>  <b>Chair: Prof Stephen Johnston</b></p> <p><b>David Dodd</b>  <i>Integrating Design into an Alternative Engineering Curriculum</i></p> <p><b>Margaret Jollands</b>  <i>Restructuring the lecture/tutorial model for effective learning</i></p> <p><b>Mahfuz Aziz</b>  <i>Action research into project based learning in a computer design course</i></p> <p><b>Angela Lundberg</b>  <i>Alternative Assessments in Civil and Environmental Engineering</i></p>	<p><i>SESSION 9 - Seminar Room 3</i>  <u>Active/Problem-based Learning</u>  <b>Chair: Prof Roger Hadgraft</b></p> <p><b>Lachlan Thompson</b>  <i>Teaching Science "Spiders in Space Experiment" on Columbia STS107</i></p> <p><b>Andrew Jennings</b>  <i>Robot Competitions in the Curriculum</i></p> <p><b>Michael Negnevitsky</b>  <i>Problem oriented teaching in electric power: some experience and new trends in Tasmania and Ukraine</i></p> <p><b>John Lenarcic</b>  <i>On the teaching of computer programming to adults</i></p>
1700-1730	ISSUES FORUM <i>Lecture Theatre</i>		

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DAY 1 Evening of MONDAY, 29 SEPTEMBER 2003			
Group dining arrangements – See Registration Desk for options			
TUESDAY, 30 SEPTEMBER 2003			
0800-0830	REGISTRATION <i>Storey Hall Foyer</i>		
0800-0830	Day 2 chairs to meet with Day 2 presenters <i>Seminar Room 1</i>		
0830-1000	INTRODUCTION from A/Prof Roger Hadgraft and INVITED SPEAKER: Professor Richard Felder <i>Lecture Theatre</i>		
1000-1030	MORNING TEA – STUDENT POSTER EXHIBITION <i>Storey Hall Foyer - Followed by student panel session in the Storey Hall Foyer: 1030-1130</i>		
1030-1200	<p><b>SESSION 10 - Lecture Theatre</b> <u>Flexible Learning</u> <b>Chair: Daniel McGill</b></p> <p><b>Stuart Palmer</b> <i>Academic performance and persistence of on- and off-campus engineering and technology students</i></p> <p><b>Peter Ashford</b> <i>Factors impacting on the effectiveness of computer-assisted courseware</i></p> <p><b>Martin McCarthy</b> <i>Further Developments in Multi-Media Immersive Teaching for Students of Manufacturing Systems</i></p> <p><b>Charles Lemckert</b> <i>Does the Supply of Lecturer's Overheads to the Students Make a Difference - A Water Engineering Case Study</i></p>	<p><b>SESSION 11- Seminar Room 1</b> <u>Flexible Learning</u> <b>Chair: Paul Wellington</b></p> <p><b>Bruce Field</b> <i>An electronic tutor for mechanical engineering</i></p> <p><b>Jane Sargison</b> <i>Development and implementation of a cross-discipline, flexible delivery unit</i></p> <p><b>Timothy L.J. Ferris</b> <i>Something Old, Something New – A Novel Approach to Web Integrated Teaching in Engineering Management</i></p>	<p><b>SESSION 12 - Seminar Room 3</b> <u>Graduate Attributes</u> <b>Chair: Peter O'Shea</b></p> <p><b>Vladis Kosse</b> <i>Teaching Engineering Creativity at Tertiary Institutions</i></p> <p><b>Graham Dawson</b> <i>Action research for generic skill development: an integrated curriculum approach to develop information literacy, critical analysis and English expression of engineering students (utilizing triangulated assessment)</i></p> <p><b>Barry Tucker</b> <i>Information literacy for a sustainable career in engineering and technology</i></p> <p><b>Jenni Goricanec</b> <i>Digging Holes or Building Wholes? Reflections on Teaching Communications</i></p>
1200-1300	<p><b>WORKSHOP 1 -Lecture theatre</b></p> <p><b>Roger Hadgraft</b> <i>First Year - Developing Models of Effective Practice</i></p>	<p><b>WORKSHOP 2- Seminar Room 1</b></p> <p><b>Mario Zadnik</b> <i>How can you manage innovative learning programs in engineering courses?</i></p>	<p><b>WORKSHOP 3 - Seminar Room 3</b></p> <p><b>Simon Matisons</b> <i>PETS: Prototype Educational Tools for Systems and Software Engineering</i></p>
1300-1400	LUNCH <i>Storey Hall Foyer</i>		

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1400-1530	<p><i>SESSION 13- Lecture Theatre</i>  <u>1<sup>st</sup> Year Issues</u>  <b>Chair: Stuart Palmer</b></p> <p><b>Lynne Fowler</b>  <i>An innovative approach to teaching first year programming supported by learning style investigation</i></p> <p><b>Bruce Field</b>  <i>Student difficulties in structural distillation tasks</i></p> <p><b>Helen McGillivray</b>  <i>Investigating weaknesses in the underpinning mathematical confidence of first year engineering students</i></p> <p><b>Caroline Crosthwaite</b>  <i>Curriculum Diversity in a Common First Year</i></p>	<p><i>SESSION 14- Seminar Room 1</i>  <u>Global Sustainability</u>  <b>Chair: Pj Radcliffe</b></p> <p><b>Anna Carew</b>  <i>Visiting the hall of mirrors: engineering academics' conceptions of sustainability</i></p> <p><b>Dick van den Dool</b>  <i>Reinventing the Bicycle Wheel</i></p> <p><b>John Andrews</b>  <i>Towards Sustainable Engineering at RMIT University</i></p>	<p><i>SESSION 15 - Seminar Room 3</i>  <u>Flexible Learning</u>  <b>Chair: Dr Lesley Jolly</b></p> <p><b>James Trevelyan</b>  <i>Remote Access Laboratories In Engineering Education</i></p> <p><b>Peter Ashford</b>  <i>A Web-based Learning Module for the Design and Construction of Industrial Pavements</i></p> <p><b>Aaron Blicblau</b>  <i>A Multi-Modal Approach to Teaching and Learning: A Case Study of Teaching Materials and Process Engineering</i></p>
1530-1600	<p>AFTERNOON TEA  <i>Seminar Rooms</i></p>		
1600-1700	<p><i>WORKSHOP 4 - Lecture Theatre</i></p> <p><b>Tricia Caswell</b>  <i>Establishing Global Sustainability in Engineering Programs</i></p>	<p><i>WORKSHOP 5 - Seminar Room 1</i></p> <p><b>Vladis Kosse</b>  <i>Teaching Engineering Creativity</i></p>	<p><i>WORKSHOP 6 – Computer Lab 87.03.02</i></p> <p><b>David Jones</b>  <i>CE.NET as the focus of an Embedded Systems Course</i></p>
1700-1730	<p>ISSUES FORUM  Lecture Theatre</p>		
<b>DAY 2 Evening of TUESDAY, 30 SEPTEMBER 2003</b>			
1830 or 1900  2300	<p>Meet at RMIT Security, Franklin St, for coach transfer  Meet at Berth Victoria Dock, Docklands, near Telstra Dome (self drive or taxi from CBD ~\$10)  CONFERENCE DINNER on the cruise ship <b>Voyager</b> (which departs punctually at 1930 so don't be late or you will be left behind!!!)  Return coach transfer to RMIT, La Trobe St</p>		

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WEDNESDAY, 01 OCTOBER 2003			
0830-0900	REGISTRATION <i>Storey Hall Foyer</i>		
0830-0900	Day 3 chairs to meet with Day 3 presenters <i>Seminar Room 1</i>		
0900-1000	INTRODUCTION from Shanna Rudov-Clark and INVITED SPEAKER: Professor David Brereton <i>Lecture Theatre</i>		
1000-1015	SPONSOR PRESENTATION from the National Occupational Health and Safety Commission <i>Lecture Theatre</i>		
1015-1045	MORNING TEA <i>Storey Hall Foyer</i>		
1045-1215	<p><i>SESSION 16 - Lecture Theatre</i> <u>Global Sustainability</u> <b>Chair: Dr Bruce Field</b></p> <p><b>Allison Brown</b> <i>How can we have ethical and sustainable engineering in a world dominated by market forces?</i></p> <p><b>Stephen F Johnston</b> <i>Sustainability and Globalisation: a positive role for engineering</i></p> <p><b>Jenni Goricanec</b> <i>Bringing the Outside, Inside</i></p> <p><b>Bill Lawrance</b> <i>Presenting a course in renewable energy for engineering students</i></p>	<p><i>SESSION 17 - Seminar Room 1</i> <u>Sustainable Engineering Education</u> <b>Chair: Prof Doreen Thomas</b></p> <p><b>David Thorpe</b> <i>The Challenges of Educating Engineering and Technology Managers</i></p> <p><b>Brian Stone</b> <i>Some considerations for the sustainability of engineering education</i></p> <p><b>Colin Kestell</b> <i>Meeting the educational demands of the South Australian automotive industry</i></p> <p><b>Karen Adams</b> <i>Sailing off in a leaky boat: how some postgraduate Engineering students and their supervisors embark on early candidature</i></p>	<p><i>SESSION 18 - Seminar Room 3</i> <u>Women In Engineering</u> <b>Chair: Euan Nichol</b></p> <p><b>Julie Mills</b> <i>"I had this real feeling that it was a boys club"</i></p> <p><b>Linda Darby</b> <i>Perceptions of engineering from female secondary college students in regional Victoria</i></p> <p><b>Gunilla Burrowes</b> <i>Students Perceptions of Gendered Language in an Engineering Classroom</i></p>
1215-1230	ISSUES FORUM <i>Lecture Theatre</i>		
1230-1330	LUNCH - BOX <i>Pick up from Seminar Rooms</i>	AaeE AGM <i>Seminar Room 1</i>	

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1330-1500	<p><i>DEANS PANEL - Lecture Theatre</i></p> <p><b>Prof Brendon Parker (Chair)</b> <i>University of NSW</i></p> <p><b>Prof Elizabeth Taylor</b> <i>Central Queensland University</i></p> <p><b>Prof Rob Snow</b> <i>RMIT University</i></p> <p><b>Prof Robin King</b> <i>University of South Australia</i></p> <p><b>Prof Andrew Downing</b> <i>Flinders University</i></p> <p><b>Prof Judy Raper</b> <i>University of Sydney</i></p> <p><b>Prof John Simmons</b> <i>University of Queensland</i></p> <p><b>Assoc. Prof Vishy Karri</b> <i>University of Tasmania</i></p>	<p>SESSION 19 - Seminar Room 1 <u>Electrical/Software Engineering</u> <b>Chair: Dr Bruce Field</b></p> <p><b>Jason Chaffey</b> <i>Challenges in the development of educational programs for MEMS technologies</i></p> <p><b>Joseph Kasser</b> <i>Prototype Educational Tools for Systems and Software (PETS) Engineering</i></p> <p><b>Matthew Joordens</b> <i>Flowchart Software for a Modular Robot</i></p> <p><b>Milan Simic</b> <i>Teaching Digital Signal Processing using MATLAB</i></p>	<p>SESSION 20 - Seminar Room 3 <u>Women In Engineering</u> <b>Chair: Dr Julie Mills</b></p> <p><b>Kanchana Jayasuriya</b> <i>Enhancing Diversity in Engineering as part of an Action Plan</i></p> <p><b>Dallas Wingrove</b> <i>Women in Engineering - An Innovative Model Enhancing Diversity</i></p> <p><b>Bouchra Senadji</b> <i>On the popularity of engineering among Brisbane high school girls</i></p>
1500-1530	<p>AFTERNOON TEA <i>Seminar Rooms</i></p>		
1530-1600	<p>CLOSING ADDRESS – A/Prof Roger Hadgraft <i>Lecture Theatre</i></p>		