We extend a warm invitation to you to participate in the Research in Engineering Education Symposium being held at Palm Cove, North Queensland, Australia. This is the third in the series, which began with the ICREE conference in Hawaii in 2007 followed by the first REES conference in Davos in 2008.

**Symposium Theme**

The focus of this conference is “building an international community of engineering education researchers”. With papers from more than 20 countries, the conference is a wonderful opportunity to share ideas and to seek collaborative opportunities. Sessions commence on Tuesday 21 July 2009.
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### Monday 20th July

17:30  Registration Welcome Reception and BBQ at Novotel Palm Cove Sprigs Lawn

### Tuesday 21st July

8:30  Registration Desk Opens  
Foyer of Convention Centre
9:00 – 10:30  Welcome Plenary  
Arlington Room
10.30 – 11.00  Refreshments  
Terrace

| Session 1 | Session 1A – **Student Motivation**  
Thetford room; Chair: Nadia Kellam  | Session 1B – **Values & Ethics**  
Hastings Room; Chair: Anna Carew  | Session 1C – **PBL**  
Flinders Room; Chair: Prue Howard  |
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<td>11:00 – 12:30</td>
<td>54. <strong>How Do Engineering Educators Take Student Motivation into Account?</strong> Jennifer Turns, Kathleen Gygi, Michael J. Prince</td>
<td>3. <strong>Engineering Values: An Approach to Explore Values in Education and Practice</strong> Caroline Baillie, George Catalano, Yamun Nahar, Eric Feinblatt</td>
<td>20. <strong>What Student Attributes Affect Experience of PBL in Virtual Space?</strong> Peter Gibbings, John Lidstone, Christine Bruce</td>
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<td>14:00 – 15:30</td>
<td>80. <strong>An Exploration of Self Motivation Factors among Engineering Students</strong> Aini Nazura Paimin, Roger Hadgraft, J. Kaya Prpic</td>
<td>9. <strong>Engineering Culture and the Ethical Development of Undergraduate Students</strong> Trevor Harding, Donald Carpenter, Cynthia Finelli, Janel Sutkus</td>
<td>27. <strong>Comparison of PBL Project Assessment Rubrics</strong> Lyn Brodie, Peter Gibbings</td>
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<td>12:30 – 14.00 Lunch</td>
<td>90. <strong>Rule, Role and Value Orientations as Motivations for Engineering</strong> Ida Ngambeki, Sara Branch, Demetra Evangelou</td>
<td>7. <strong>Transforming the Culture, Delivery and Content of an Undergraduate Engineering Program: Process, Pitfalls, and Potential for Lasting Change</strong> Roberta Herter, Trevor Harding, Linda Vanasupa</td>
<td>28. <strong>Virtual Teamwork and PBL - Barriers to Participation and Learning</strong> Lyn Brodie</td>
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| Session 2 | Session 2A – **Engagement**  
Thetford room; Chair: Maura Borrego  | Session 2B – **P-12**  
Hastings Room; Chair: Lesley Jolly  | Session 2C – **Engineering Practice**  
Flinders Room; Chair: Caroline Baillie  |
<p>| 14:00 – 15:30 | 5. <strong>Development and Validation of the Engineering – National Survey of Student Engagement (E-NSSE) and Engineering – Faculty Survey of Student Engagement (E-FSSE)</strong> Elizabeth Cady, Norman Fortenberry, Malcolm Drewery, Stefani Bjorklund  | 14. <strong>Implementing Engineering Education In The Middle School</strong> Lyn English, Les Dawes, Peter Hudson, Terry Byers  | 52. <strong>Engineering Education Requires a Better Model of Engineering Practice</strong> James Trevelyan  |
| | 41. <strong>BUZZ – Acoustical Engineering Methodologies to Measure Student</strong>  | 56. <strong>Integrating Engineering Experiences within the Elementary</strong>  | 11. <strong>A Study of the Understanding of Knowledge and Learning of a</strong>  |</p>
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<th>Session 3</th>
<th>Session 4A – <strong>Diversity</strong> Thetford room; Chair: Julie Mills, Judith Gill</th>
<th>Session 4B – <strong>Knowledge Frameworks</strong> Hastings Room; Chair: Jeff Froyd</th>
<th>Session 4C – <strong>Active Learning</strong> Flinders Room; Chair: David Richter, Marie Paretti</th>
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<td><strong>51. The Relationship Between First Year Engineering Students’ Perceptions of Workload and Stress</strong> Euan Lindsay</td>
<td><strong>58. Metrics and the Holistic Learner</strong> Jennifer Karlin, Stuart Kellogg</td>
<td><strong>61. Phase change in engineering knowledge production - from an academic to an entrepreneurial context</strong> Bill Williams, José Figueiredo</td>
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<td><strong>73. Student Retention Modelling: An Evaluation of Different Methods and their Impact on Prediction Results</strong> PK Imbrie, Joe J.J. Lin</td>
<td><strong>93. Identifying Teaching Approaches that Develop Engineering Students’ Graduate Attributes</strong> Anna Carew, David Lewis, Chris Letchford</td>
<td><strong>89. Influencing Student Designers Towards Safe Design - Transdisciplinarity and the Journey of the Devox</strong> Prue Howard, Yvonne Toft</td>
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<td><strong>79. Towards an Integration of Formal and Informal Curricula in Engineering Schools</strong> Mario Letelier, Rosario Carrasco</td>
<td><strong>101. A Cognitive Framework for Understanding the Role of Students’ Expectations and Motivations in Interdisciplinary Design Collaboration</strong> David Richter, Marie Paretti</td>
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**Wednesday 22nd July**

8:30 Registration Desk Opens Foyer

15.30 – 16.00 Refreshments (Terrace) 16:30 Depart Palm Cove at Hartleys Crocodile Adventure and Dinner

10.30 – 11.00 Refreshments Terrace
60. Using a model-building task to compare the design process of service learning and non-service learning engineering students
Adam Carberry, Gay Lemons, Chris Swan, Linda Jarvin, Chris Rogers

35. Enhancing Student Awareness of Conceptual Variations in a Key Nanoscience Concept: The Effect of a Teaching Intervention in an Engineering Course Eun-jung Park, Su Swarat, Greg Light, Denise Drane

70. Where the Social meets the Cognitive in Classroom Interactions: Mapping the Intersecting Spaces between "Teaching & Learning" in the Classroom Community Pamela Theroux

100. Teacher Influences on Child Interest in STEM Careers Meara Habashi, William Graziano, Demetra Evangelou, Ida Ngambekei

72. Use of Item Response Theory to Facilitate Concept Inventory Development Teri Reed-Rhoads, PK Imbrie

77. Patterns of Technology Adoption and Perceptions of Virtual Laboratories Among Undergraduate Engineering Students Krishna Madhavan, Jacob Schroeder, Hanjun Xian

104. An Examination of the Paths Influencing the Post Baccalaureate Decisions of High Achieving Black Engineering Students Lorraine Fleming, Dawn Williams

96. Unpacking Student Conceptions of Surface Area to Volume Ratio in the Nanoscience Context: An Empirical Application of the Construct-Centered Design Framework Su Swarat, Gregory Light, Eun Jung Park, Denise Drane


12:30 departure from Palm Cove for Kuranda Skyrail excursion (return to Palm Cove 17:15)
Conference Dinner depart Palm Cove 18:30 (Depart Palm Cove 18:15 and return 22:30)

Thursday 23rd July

8:30 Registration Desk Opens Foyer

Session 5

9:00 – 10:30

Session 5A – **Student Success** Thetford room; Chair:

10. A Study of Key Factors that Influence Engineering Student Success at University David Dowling, Lorelle Burton

46. Analysis of the Results of the Continuous Assessment in the Adaptation of the University to the European Higher Education Area Jorge Enrique Pérez-Martínez, María Jesús García-García, Wilmar Hernandez, María Jesús Villamide-Díaz

82. The Relationship Between Academic Self-Confidence and Cognitive Performance Among Engineering Students Maizam Alias, Nurul Ain Hafizah Mohd Hafir

69. An Adaptive Response Model to Predict Emergent Engineering Education System Properties Nadia Kellam, Joachim Walther, David Gattie

Session 5B – **Knowledge Development** Hastings Room; Chair:

65. Confronting the Methodological Challenges of Engineering Practice Research: A Three-Tiered Model of Reflexivity Nicki Sochacka, Joachim Walther, Lesley Jolly, Lydia Kavanagh

47. The Role of Prior Knowledge on the Origin and Repair of Misconceptions in an Introductory Class on Materials Science and Engineering Stephen Krause

15. Problem Identification During Model-Eliciting Activities: Characterization of First-Year Students’ Responses Heidi Diefes-Dux, Amani Salim

76. Self and Peer Assessment: A Necessary Ingredient in Developing and Tracking Students’ Graduate Attributes Keith Willey, Anne Gardner

Session 5C – **Team Learning** Flinders Room; Chair:

8. Learning Engineering in Teams: Perspectives from Two Different Learning Theories Senay Purzer

75. Changing Student’s Perceptions of Self and Peer Assessment Keith Willey, Anne Gardner

83. Stakeholder Perceptions of Online Peer Mark Moderation in University Teamwork Peter Willmot, Keith Pond
Guidelines for fully refereed papers submitted to REES for publication (change this heading into your paper title)

Abstract: An abstract of no more than 150 words should be provided here in the format given in the style ‘Abstract’. The word ‘Abstract’ should be made bold as shown. Simply replace this italics text with your Abstract.

Introduction – overall layout

The preferred file format for submission of your paper is PDF. However, we are expecting you will prepare your paper in MS Word. This document defines the preferred style to be used to format your paper for submission to REES conferences.

Structure

As you prepare your short paper, please follow the organization outlined here. The second review in April/May will be more searching than the first review and it is essential that your paper demonstrates each of the items 1-6.

1. What is the context or background of the study? What are the most significant findings from other research studies which influenced your work?
2. What are the research questions you investigated? Why are they important to engineering education?
3. What theoretical framework(s) did you use? Explain any theoretical concepts which are critical to the research.
4. Discuss your methodology. How did you collect data to investigate your research question? From whom did you collect it? How did you analyze the data?
5. Discuss your major findings and/or conclusions. Outline your chain of reasoning from data analysis to findings. Are there other interpretations which could fit your data and analysis? Are there alternative interpretations which you ruled out?
6. Discuss any recommendations for engineering education. Indicate future research plans or additional questions raised by this research project.
7. Acknowledge any support you received for this project.

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