



**The International Centre for Sustainability Engineering and Research  
in collaboration with the US National Science Foundation**

**invites applications to attend**

**A Workshop on Frontier Research Directions and International  
Collaborations in Sustainability Engineering and Science.**

**February 24 2007**

**Hotel Du Vin, Auckland, New Zealand**

You are cordially invited to submit an application to attend this workshop which will be held immediately following the International Conference on Sustainability Engineering and Science, 'Talking and Walking Sustainability', 20-23 February 2007, The University of Auckland, Auckland, New Zealand. Attendance is by invitation only and participants are expected to attend the Conference as this will be a springboard for the workshop. The workshop is free to invited scientists and engineers. **Please submit an application to Dr Ron McDowall (The University of Auckland) at email: [r.mcdowall@auckland.ac.nz](mailto:r.mcdowall@auckland.ac.nz) by 15 January 2006. Submission simply an email stating your research interest areas and the Institution you belong to.**

**Workshop Objectives:**

- To aid in setting priorities for frontier research directions into sustainability engineering and science;
- To initiate collaborative research into sustainability engineering and science.

Sustainability engineering is a profound challenge to many in the coming century. Vital resources are of limited supply, energy costs have been rising, and global environmental effects are being observed. Major engineering planning, decision making, and implementation will need to address sustainability in the future. Engineering approaches that integrate sustainability are urgently needed for many specific areas, such as water use and re-use, energy efficient and non-toxic product design, new construction materials and methods and underground processes. Considerable work has been done in the area, both in the US and abroad, but numerous intellectual challenges for new processes and technologies exist. Sustainability is a global challenge and international collaboration will be critical to making research relevant and novel. This workshop should aid the maturity and research priority setting of the sustainability engineering research community. More broadly, the successful development of sustainability

engineering should result in better management of limited resources and development of alternatives to existing, non-sustainable processes.

**Workshop Participants**

Participants include:

- Thirty US researchers, scientists and engineers;
- Thirty international participants invited from the New Zealand conference participants, including faculty from the University of Auckland. We anticipate participation from Australia, China, Singapore, Thailand, New Zealand and the European Union.

Attendance at the workshop will be limited to 70 participants, allowing two breakout sessions each on research priorities and international collaborations.

**Workshop Agenda**

<b>Time</b>	<b>Activity</b>	<b>Speakers/Facilitators</b>
8:30-8:45	Welcome and Workshop Introduction	Carol Boyle (U. Auckland), Chris Hendrickson (Carnegie Mellon University)
8:45-10:15	Panel-led Discussion: Research Priorities and Needs	David Allen (U. Texas) Brad Allenby (Arizona State) Two International Participants
10:15-10:45	Break	
10:45-12:15	Panel-led Discussion: Opportunities for International Collaboration	Amy Landis (U. Illinois) Jorge Vanegas (Texas A& M) Two International Participants
12:15-1:15	Lunch	
1:15-3:15	Breakout Sessions: Priorities for International Collaborations	Two members of the organizing committee would be assigned to each of the four breakout sessions.
3:15-3:45	Break	
3:45-5:00	Group Discussion	Presentation of Breakout Session Conclusions and General Discussion. Chris Hendrickson to Moderate

**Please note: you must attend the Conference to attend the Workshop ([nzsses.auckland.ac.nz/conference/index.htm](http://nzsses.auckland.ac.nz/conference/index.htm)).**

**Contacts**

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