

FRIDAY FORUM #25

The Future of Buildings *Can we build sustainable buildings?*

Friday, 4 March 2010, 9am – 12 noon

Conference Centre Lecture Theatre
School of Architecture and Planning, University of Auckland
NICAI Bldg 423, 26 Symonds St

The aim of these Forums is firstly for the speakers to outline their viewpoint of the topic, and secondly, and perhaps more importantly, to provide the background information to resource what is hoped to be a stimulating and forthright discussion.

Speakers:

1. **Environmental Engineering:** 'Getting green rating tools into reality'.

Jeremy Gabe, Landcare Research.

Jeremy has done some extraordinary research into the LEED rated buildings in the US. With a sample of over 450, he has shown that most have managed to avoid any consideration of improved energy performance and, now that they have been monitored, has shown that most 'fiddled' their design calculations to achieve a LEED rating. This now seems to be happening in NZ. He will suggest ways of improving rating systems.

2. **Services Engineering:** 'Challenging the convention of the need to air-condition buildings'.

Dave Fulbrook, eCubed Building Workshop.

With over 30 years experience in the industry, Dave is a respected building services and sustainable design specialist. He is the leading proponent for energy efficient and sustainable design for commercial, institutional and public buildings in New Zealand. eCubed are considered a leading firm of Services Engineer's in NZ and they are breaking convention by designing large corporate buildings without air-conditioning.

3. **Facade Engineering:** 'Bad science and brand image: the performance of glass buildings'.

Hugh Byrd, School of Architecture & Planning, UoA.

Almost all the Green Star buildings have a double skin facade (DSF). There is no good scientific case for this technology; it is put there to try and make a poorly performing fully glazed building a little better while not obstructing the visual image of the building. This talk will explain the science/engineering involved in international research that concludes that there is no case for DSF and some case studies in Auckland.

4. **Carbon Engineering:** 'The myth of Carbon neutral buildings'.

Soo Ryu, Victoria University.

Soo studied the claim that Victoria University was Carbon neutral. She has gone to extraordinary lengths to follow the Carbon chain in the operation of the campus and has concluded that this, and most claims, are not accurate and cannot be justified. She will identify the key areas where buildings should improve if they are to move towards Carbon neutrality.

Forum 25 – The Future of Buildings- Auckland

Programme –

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|----------------|--|--|
| 9am | Welcome and introductions | Dr Carol Boyle Chair, NZSSES |
| 9.05 am | Professor Jenny Dixon, Dean NICA | |
| 9.10am | Dr Carol Boyle / Dr Hugh Byrd | |
| 9.20am | Jeremy Gabe, Landcare Research | |
| 9.40am | David Fullbrook, eCubed Building Workshop | |
| 10.00am | Dr Hugh Byrd | |
| 10.20am | Soo Ryu | |
| 10.40am | Morning tea (20 minutes) | |
| 11.00am | Panel Discussion / Debate / Wrap up | |
| 12 noon | FINISH | |
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Registration / Information

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|------------------------|---|
| Fee | <ul style="list-style-type: none"> ○ This event is free courtesy of the members of NZSSES ○ Attendees are invited to become members of NZSSES |
| RSVPs essential | <i>Email to vicky@nzsses.org.nz to register</i> |

Sustainability Forums

The NZSSES hold regular forums aimed at exploring different engineering and science sectors and their approach to sustainability. The forums are morning sessions and comprise brief presentations from guest speakers followed by a facilitated discussion.

It is intended that problems with understanding and implementing sustainability principles will be identified and discussed.

NZSSES

The New Zealand Society for Sustainability Engineering and Science is a Learned Society established to foster the discipline of sustainability engineering and science as the study of complex systems. NZSSES provides training and information sessions on sustainability through its workshops, seminars, forums and bi-annual international conferences.

The NZSSES is a Technical Interest Group of the Institution of Professional Engineers of New Zealand and an Affiliated Organisation of the Royal Society of New Zealand.

Topics to date:

- *Forum #24 – Peak Oil – Is NZ ready? (Sept 2010)*
- *Forum #23 – Clean Tech, Green Tech and Sustainability Research (July 2010)*
- *Forum #22 – The Future of Food (Apr 2010)*
- *Forum #21 – The Future of Transport – Christchurch (Apr 2010)*

- *Forum #20 – Sustainable Water Supply for Auckland. (Feb 2010)*
- *Forum #19 – Conservation v Mining (October 09)*
- *Forum #18 – Sustainable Air Quality for Auckland (Sept09)*
- *Forum 16 – Auckland: Sustainable Transport (July 2009)*
- *Forum 15 – Auckland: Complexity, Innovation and Decision (May 2009)*
- *Forum 14 – Auckland: Municipal Three Waters (April 2009)*
- *Forum 13 – Christchurch: Blueprints for Sustainable Infrastructure Conference Papers (March 2009)*
- *Forum 12 – Auckland: Sustainable Housing (Sept 2008)*
- *Forum 11 – Christchurch: Strategies for Canterbury Water (Aug 2008)*
- *Forum 10: Auckland: Sustainable Electricity (July 08)*
- *Forum 9 - Auckland: Biofuels (May 2008)*
- *Forum 8 – Christchurch: Water: Supply and Storage (March 2008)*
- *Forum 7 – Auckland: Future thinking and Frontier Design (Feb 2008)*
- *Forum 6 – Auckland: Carbon Trading (Oct 2007)*
- *Forum 5 – Auckland: Sustainable Transport: Cars and Congestion (Aug 2007)*
- *Talking and Walking Sustainability Conference (Feb2007)*
- *Forum 4: Auckland: Governance and Sustainability (Sept. 2006)*
- *Forum 3 – Auckland: Consultants and Sustainability (May 2006)*

