

**NSERC Strategic Network on Innovative Wood Products
and Building Systems (NEWBuildS)**

Wood Science and Technology Centre
University of New Brunswick
1350 Regent Street
Fredericton, New Brunswick
CANADA E3B 6C2
Tel: (506) 453-4507
Fax: (506) 453-3574



Theme 2 (Hybrid Building Systems) Research Exchange

June 13 – 14, 2011

NRC Institute for Research in Construction
Building M20, 1200 Montreal Road, Ottawa, Ontario

Objectives:

- Make linkages between people inside and outside the network
- Enhance concepts and delivery of individual projects in Theme 2
- Address issues from a structural perspective

Research Exchange Day 1

Monday, 13 June 2011 (Room 114)

9:00 **Opening**

- Welcome (Dr. Morad Atif, NRC-IRC)
- Review of the agenda and objectives (Dr. Jan Weckendorf, UNB)
- Self-introductions by delegates

9:15 **National and international contexts of Theme 2 activities** (Prof. Ian Smith, UNB)

9:30 **Keynote address** (Prof. Andrea Frangi, ETH-Zurich)

10:30 Coffee break

10:45 **Session 1 - Fire performance of timber buildings** (Moderator: Mr. Conroy Lum, FPInnovations)

- 1.1 Canadian code requirements for fire resistance (Dr. Nouredine Benichou, NRC-IRC)
- 1.2 Fire performance of timber connections (Prof. George Hadjisophocleous, Carleton University)
- 1.3 Fire design concepts for tall timber buildings (Prof. Andrea Frangi, ETH-Zurich)
- 1.4 Behavior of CLT in fire (Prof. Andrea Frangi, ETH-Zurich)
- 1.5 Other topics and perspectives (everyone)

12:30 Lunch break

13:30 **Session 2 - Vibrations and acoustics** (moderator: Prof. Ying Hei Chui, UNB)

- 2.1 Acoustical performance of buildings: Current practice, research, and code requirements (Dr. Stefan Schoenwald, NRC-IRC)
- 2.2 Floor vibration serviceability (Dr. Lin Hu, FPInnovations)
- 2.3 Vibrations of tall buildings (Prof. Ghyslaine McClure, McGill U)
- 2.4 Other topics and perspectives (everyone)

Continue from Day 1:

- 15:00 Coffee break
- 15:15 **Session 3 - Hybrid building systems** (moderator: Prof. Ian Smith, UNB)
- 3.1 Challenges with Concrete/Wood Hybrid Structures (Prof. Mike Bartlett, UWO)
- 3.2 Related activities at FPInnovations (Mr. Conroy Lum, FPInnovations)
- 3.3 Other topics and perspectives (everyone)
- 16:15 Closure of Workshop Day 1

Research Exchange Day 2

Tuesday, 14 June 2011

- 9:00 Outline for Workshop Day 2 (Dr. Ian Smith, UNB)
- 9:15 **Session 4 - Introduction to work at NRC** (moderator: Dr. Trevor Nightingale, NRC-IRC)
- 4.1 Presentation of joint cooperation project of NRC, FPInnovations and CWC (Ms. Helen Griffin, CWC)
- 4.2 Moisture management and durability research (Mr. Mike Swinton, NRC-IRC)
- 10:00 Coffee break
- 10:15 **Session 5 – Parallel sessions** (Breakout groups)
- 5.1 Group 1: Low- and mid-rise building structures (room 134)
(Discussion leader: Prof. Ghasan Doudak, U Ottawa)
- 5.2 Group 2: High-rise building structures (room 172)
(Discussion leader: Dr. Mohammad Mohammad, FPInnovations)
- 11:15 **Session 6 - Joint session**
- 6.1 Summary of group discussions (Prof. Ghasan Doudak & Dr. Mohammad Mohammad, FPInnovations)
- 6.2 Discussion and other opinions (everyone)
- 12:00 **Summary and conclusions**
- An outside perspective (Prof. Andrea Frangi, ETH-Zurich)
 - Implications of what we have learned/what next? (Prof. Ian Smith, UNB)
- 12:30 Lunch break
- 13:30 **Tour of IRC facilities**
- 15:30 End of workshop