



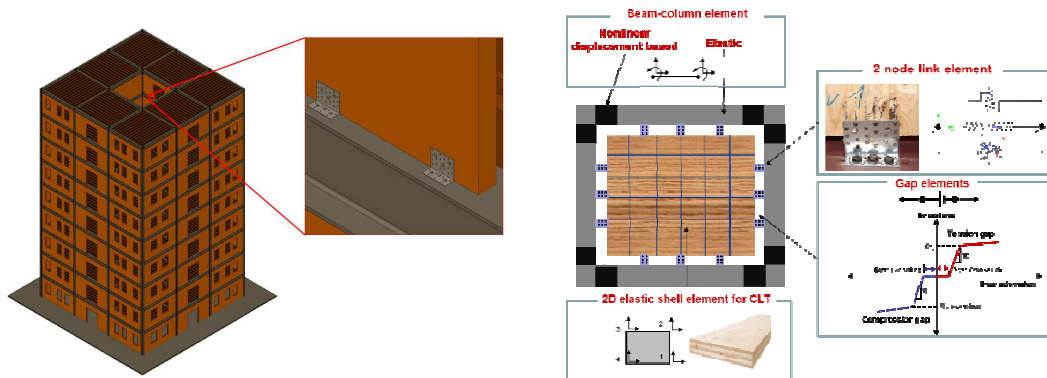
ΔΙΑΛΕΞΗ

Innovative Timber-Steel Hybrid Buildings

Αμφιθέατρο Μεταλλικών Κατασκευών
Πέμπτη 23 Οκτωβρίου, ώρα 17:00

Dr. Solomon Tesfamariam

University of British Columbia



The National Building Code of Canada (NBCC 2010) places strict height limits for timber buildings (maximum allowed building height limit is 6 storeys). In this talk, an innovative hybrid structure, developed at the University of British Columbia, will be presented. The hybrid structure incorporates Cross Laminated Timber (CLT) infill shear panels within steel moment resisting frames (SMRFs). For these hybrid structures, the first part of the talk will highlight the proposed hybrid system, the experimental connection testing between CLT panels and SMRF, and the analytical model developed. The second part will discuss the analytically derived equivalent viscous damping model. An iterative direct displacement based design method is developed and analytically validated, showing the effectiveness of the proposed hybrid building.



Bio-sketch: Dr Solomon Tesfamariam is an associate professor at UBC Okanagan. He has worked for eight years at the National Research Council of Canada on decision support tools for infrastructure management, and analytical and numerical based modelling of pipe failures. His research interests lie primarily in the protection of civil infrastructure and structural systems from multiple hazards (earthquake, fire, ageing/deterioration, climate change, etc.) and the development of robust, risk-based decision making tools.