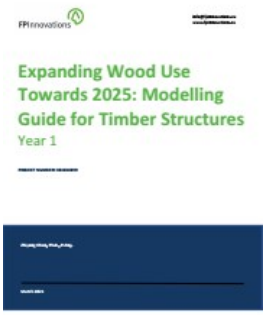

Expanding wood use towards 2025: modelling guide for timber structures, year 1

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Abstract: Computer modelling is an essential part in the analysis and design of mid- and high-rise residential and commercial buildings as well as long-span structures. It is also a valuable tool in the optimisation of wood-based products, connections, and systems. An FPInnovations' survey shows that practicing engineers are unfamiliar with timber structure modelling, and researchers generally lack resources for advanced modelling of timber systems. Furthermore, wood analysis and design modules currently implemented in a few structural analysis software are usually not suitable for complex or hybrid timber structures. This does not bode well given that performance-based design which is the future direction of building codes and material standards will rely even more on demonstrating the structural performance through computer modelling. In this project, a modelling guide for timber structures is being developed by FPInnovations with a global collaborative effort involving experts in various areas, with the aim of (a) assisting practicing engineers apply computer modelling to timber structures; (b) enriching researchers' resources for advanced computer modelling of timber systems; and (c) assisting software companies to identify the gaps and upgrade their programs accordingly to accommodate advanced computer modelling of timber structures.

Documents

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