Monitoring Moisture in Mass Timber

Core LU

This presentation will teach the audience about the available technology for structural monitoring and how it can be utilized for quality assurance, risk mitigation, improved quality of life for occupants and support in architecture, engineering and construction, with a focus on Mass Timber applications.

Introduction

SMT leak detection systems notify the occupants of a leak in the roofing system so that they can take action to remedy the situation before the leak causes issues internally such as mold growth, wood rot, structural damage or damage to internal property. Our sensors can also be used to monitor internal air quality by measuring temperature, RH, Co2 and more, allowing the occupants to make adjustments to improve air quality.

Our sensors are also used in research projects aimed at improving overall building design quality and thus the overall health, wellbeing and comfort of the future occupants. After attending our one hour session, attendees will be able to:

1. Describe how different types of structure monitoring technologies are implemented in Mass Timber buildings - from moisture and leak detection to dynamic thermo performance monitoring (i.e. measured R-value).

2. Identify the immediate and long-term benefits of adopting monitoring systems and moisture sensors for mass timber building envelopes during the construction commissioning process.

3. Identify the different variables in which a contractor can control for successful building enclosure commissioning.

4. Discuss potential future collaboration of innovative monitoring technologies for construction - specific to the building enclosure, energy consumption and air tightness, thus improving build quality and occupant's health and safety.

After the presentation has been completed, you may contact SMT for additional resources associated with our Mass Timber presentation

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