

**S. Claire Yuan, MSc, P Eng****CURRICULUM VITAE**

Claire Yuan is a professional engineer registered in British Columbia and Alberta. Claire holds a Master of Applied Science in Mechanical Engineering from Waterloo University, specializing in Fire Safety Engineering, and a bachelor's degree in Chemical Engineering from University of Alberta. Specialized in fire risk and performance-based fire engineering analysis, Claire develops and successfully negotiates alternative solutions to Building Code compliance for various types of projects including institutional buildings, commercial complexes, and industrial applications. With her knowledge and passion in fire science, Claire is in active collaboration with the federal government for several ongoing research and development programs specific to forensic engineering of mass timber, including the Encapsulation Mass Timber Construction Char Rate study and Mass Timber Demonstration Fire Test Program.

SPECIALIZED EXPERTISE

- Performance Based Design
- Thermodynamics and Heat transfer analysis
- Evacuation analysis and Human Behaviour (MassMotion / PathFinder)
- Fire/Smoke modelling (CFD / Contam)
- Fire Science and Engineering
- Atrium / interconnected floor space design
- Mass timber construction
- Spatial Separation
- Risk and reliability analysis

PROFESSIONAL EXPERIENCE

- June 2016 – Present **GHL CONSULTANTS LTD**, Building Code Consultants and Fire Science Engineers
Associate, Professional Engineer
- September – December 2014 **University of Alberta**, thermal dynamics on Biomedical research
Dean's Research Simulator Student

EDUCATION

- May 2018 – December 2022 **Master of Applied Science (MSc), Mechanical Engineering**
University of Waterloo, Waterloo, Ontario
Thesis: Challenges Faced in Application of Fire and Life Safety Design in Current Canadian Building Code <http://hdl.handle.net/10012/19114>

RELATED COURSES

- 2018 - 2019 **Human Behaviour, Fire Modelling, Fire Risk and Fire Dynamics**
Graduate School Courses, University of Waterloo, Waterloo, ON

RESEARCH PROJECTS

- 2023 NRCan Exposed Steel Connections in Mass Timber Construction
2021-2022 Canadian Wood Council Mass Timber Demonstration Fire Test Program
2020 NRCan Encapsulated Mass Timber Construction Char Rate Analysis

PROFESSIONAL REGISTRATION

- Registered Professional Engineer - British Columbia and Alberta