Thesis Title	**Experimental and Numerical Analysis of Heat Transfer in Thermosyphon Solar Thermal Systems**
Programme of Studies	MSc in Energy Engineering
Course	MEE 540 - MSc Thesis
Area of Study	Sustainable Built Environment – Solar Thermal Systems Analysis
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Semester	Fall Semester 2025
Short Description	This thesis examines the heat transfer performance of thermosyphon solar thermal systems, which rely on natural circulation without mechanical pumping. A numerical model is developed to predict temperature distribution and energy transfer within the system under varying operating conditions. The study reviews established analytical models and evaluates key parameters such as collector performance, storage tank stratification, and flow behaviour. Results enhance understanding of thermosyphon dynamics and support optimized system design for reliable, low-maintenance solar water heating applications.