Thesis Title	**Decarbonization of Limassol Port with Green Hydrogen Energy Systems**
Programme of Studies	MSc in Energy Engineering
Course	MEE 540 - MSc Thesis
Area of Study	Sustainable Transport – Hydrogen Technologies
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Semester	Spring Semester 2025
Short Description	This MSc thesis investigates the potential of green hydrogen energy systems for the decarbonization of Limassol Port. It analyzes the environmental footprint of port activities and evaluates hydrogen-based strategies for reducing greenhouse gas emissions from shipping, port logistics, buildings, and onshore power supply. The study reviews hydrogen production technologies, with emphasis on renewable pathways, and examines their applicability within the Cypriot energy context. By proposing an optimized hydrogen-based infrastructure integrated with renewable energy systems, the thesis highlights opportunities and challenges related to cost, technological maturity, and infrastructure readiness, supporting Limassol Port's transition towards sustainable and competitive low-carbon operations.