Thesis Title	**Life Cycle Assessment of Electric Vehicle Charging Infrastructure**
Programme of Studies	MSc in Energy Engineering
Course	MEE 540 - MSc Thesis
Area of Study	Sustainable Transportation
Student's Name	Constantinos Othonos
Students Reg. Number	27649
Supervisor	Dr.-Ing. Paris A. Fokaides, Professor, Mechanical Engineering Department
Co-supervisor	Ms Kyriaki Koumenidou, Sustainable Energy Research Group
Supervisory Committee	Dr Byron Ioannou, Professor, Architectural Department Dr. Michalis Menicou, Assoc. Professor, Mechanical Engineering Department
Semester	Fall Semester 2025
Short Description	This thesis evaluates the environmental impacts of electric vehicle (EV) charging infrastructure using Life Cycle Assessment (LCA) methodology in accordance with ISO 14040/44 standards. The analysis covers all life cycle stages, from raw material extraction to end-of-life disposal, using Sphera software. Different charger types (Level 1, Level 2, and DC fast chargers) are compared under alternative electricity supply scenarios, including renewable and fossil-based grids. Key indicators such as Global Warming Potential, carbon footprint, and resource depletion are assessed, highlighting opportunities to enhance the sustainability of EV infrastructure, particularly in the Cypriot context.