

Master Thesis Brief Description

Thesis Title	Energy Performance Analysis of an Academic Building
Programme of Studies	MSc in Sustainable Energy Systems
Course	MES 580 MSc Thesis
Area of Study	Computational Building Physics – Buildings Assessment
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Semester	Fall Semester 2022
Short Description	Buildings consume energy throughout their entire life cycle, from construction to demolition. High energy usage can have significant environmental consequences, such as accelerating global warming. Therefore, investigating a building's energy consumption is of utmost importance. This thesis presents an in-depth analysis and verification of the annual energy use as a case study for energy conservation in a building located at the Frederick University of Nicosia, Cyprus. The analysis encompassed a comprehensive assessment of various aspects, including the building's envelope, HVAC systems, lighting, electrical sockets, and potential for renewable energy integration. The findings resulted in a detailed report outlining the building's current energy consumption and providing recommendations to reduce it. By implementing these suggested measures, the building's energy consumption can be effectively reduced, resulting in a lowered environmental impact and potential savings on energy costs.