

## Master Thesis Brief Description

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<b>Thesis Title</b>	<b>Feasibility assessment of tidal energy technologies for electricity generation in the island of Cyprus</b>
<b>Programme of Studies</b>	MSc in Energy Engineering
<b>Course</b>	MEE 540 MSc Thesis
<b>Area of Study</b>	Sustainable Energy Technologies – Wave Energy
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<b>Supervisory Committee</b>	Dr Chris Christodoulou, Professor, Mechanical Engineering Department Dr. George Karagiorgis, Professor, Mechanical Engineering Department
<b>Semester</b>	Fall Semester 2023
<b>Short Description</b>	<p>Tidal energy presented a promising renewable energy source with the potential to meet significant electricity demands. In light of increasing energy needs and growing climate change concerns, the utilization of clean and reliable energy sources became imperative. The island of Cyprus, located in the Mediterranean Sea with favorable tidal range and weather conditions, stood as an ideal location for tidal energy generation. The dissertation proposal aimed to assess the feasibility of implementing tidal energy technologies for electricity generation in Cyprus. The proposal outlined a literature review to explore existing tidal technologies, their advantages, disadvantages, and suitability for Cyprus. Based on this review, selected tidal energy technologies underwent a comprehensive feasibility assessment considering technical, economic, and environmental aspects. Expected outcomes included a thorough analysis of the feasibility of tidal energy implementation in Cyprus, identifying the most suitable technologies. The study's findings informed policy and decision-making, promoting the adoption of renewable energy sources in coastal regions like Cyprus. The study contributed valuable insights into the potential benefits and challenges of utilizing tidal energy technologies to meet growing energy demands sustainably.</p>