

## Master Thesis Brief Description

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<b>Thesis Title</b>	<b>Design and Analysis of a 50 MW CSP Unit</b>
<b>Programme of Studies</b>	BSc in Mechanical Engineering, Frederick University
<b>Course</b>	AMET 400 Senior Project
<b>Area of Study</b>	Sustainable Energy Technologies – Biomass assessment
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<b>Students Reg. Number</b>	13173
<b>Supervisor</b>	Dr.-Ing. Paris A. Fokaides, Asst. Professor, Mechanical Engineering Department
<b>Supervisory Committee</b>	Dr Michalis Menicou, Assoc. Professor, Mechanical Engineering Department Dr. George Karagiorgis, Professor, Mechanical Engineering Department
<b>Semester</b>	Spring Semester 2020
<b>Short Description</b>	The purpose of this thesis is to analyze the operation of solar power tower solar system or central solar receiver in the area of Larnaca, Cyprus. All available technologies for concentrated solar power systems are described and all parts of a solar power tower system are analyzed in detail. The factors that affect its function are analyzed, in order to understand in depth its operation of system. Information is also provided on existing solar power plants and then the methodology for designing a solar power plant production station is developed. It also becomes an energy one valuation to understand the sizes and performance of the plant.