

Master Thesis Brief Description

Thesis Title	Solar Thermal Power Stations as a Hybrid System
Programme of Studies	MSc in Sustainable Energy Systems
Course	MES 580 Master Thesis
Area of Study	Sustainable Energy Technologies – Biofuels Assessment
Student's Name	Eleni Apostolidou
Students Reg. Number	6676
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Supervisory Committee	Dr Michalis Menicou, Assoc. Professor, Mechanical Engineering Department Dr. George Karagiorgis, Professor, Mechanical Engineering Department
Semester	Fall Semester 2019
Short Description	The purpose of this study is to deliver the design of a hybrid 50 MWp Concentrated Solar Power (CSP) power plant, combined with natural gas. Within this project, the presentation of existing CSP technologies and projects is implemented. The study also proposes the comprehensive design of a hybrid natural gas – CSP plant, and analyses the energy yield of the plan under different boundary conditions. A feasibility assessment of the proposed plant is also implemented.