

Master Thesis Brief Description

Thesis Title	Fast-wood plantations for biofuels
Programme of Studies	MSc in Sustainable Energy Systems
Course	MES 580 Master Thesis
Area of Study	Sustainable Energy Technologies – Biofuels Assessment
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Students Reg. Number	8699
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Supervisory Committee	Dr Chris Christodoulou, Professor, Mechanical Engineering Department Dr. George Karagiorgis, Assoc. Professor, Mechanical Engineering Department
Semester	Fall Semester 2018
Short Description	<p>Fast-wood plantations are intensively managed commercial plantations, set in blocks of a single species, which produce industrial round wood at high growth rates and which are harvested in less than 30 years. Fast-wood plantations are employed for several purposes, including the production of feedstock for solid and liquid biofuels.</p> <p>This study aims at the investigation of the perspectives of fast wood plantations for biofuels in Cyprus, using the Paulownia Cotevisa 2 pilot plantation of the Cyprus Centre of Paulownia in Cyprus as a case study. Current state of the art in the field of fast-wood plantations under subtropical climatic conditions should be presented. Best practices and conversion routes of fast-wood plantations to biofuels should be presented. A biofuel production plant with the use of Paulownia Cotevisa 2 plants should be designed pre-engineered. A financial and environmental assessment of the supply chain of the proposed end-product is expected to be implemented.</p>