

Master Thesis Brief Description

Thesis Title	Proximal analysis of pellets derived from the wood industry
Programme of Studies	BSc in Mechanical Engineering, Stream Oil and Gas, Frederick University
Course	ASOG 405 Senior Project
Area of Study	Sustainable Energy Technologies – Biofuels Assessment
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Supervisor	Dr.-Ing. Paris A. Fokaides, V. Lecturer, Civil Engineering Department
Supervisory Committee	Dr Chris Christodoulou, Professor, Mechanical Engineering Department Dr. George Karagiorgis, Assoc. Professor, Mechanical Engineering Department
Semester	Spring Semester 2017
Short Description	<p>Over the past decade there has been a substantial increase in the amount of biomass being used for energy in Europe. As trade between countries becomes more widespread, it is necessary to create international standards to facilitate buying and selling biomass fuels. The European Committee for Standardization, CEN, has a mandate from the European Commission to develop standards for solid biofuels, under Technical Committee (TC) 335 Solid Biofuels.</p> <p>It is essential to know what you are dealing with and how to use it in the most efficient and safe manner. Therefore, researches and tests have to be carried out in order to characterize biomass, find its physical and chemical properties and, based on the results and knowledge gathered, use biofuels in the areas, they are the most suitable for.</p> <p>The overall aim of this research is to test and analyze the specific characteristics of biomass in Cyprus, with wood and olive husk pellets as an example, and, based on the European Standards, judge the quality of Cypriot biomass. In order to achieve this goal, the samples were tested for the specific characteristics and the results were compared to European standards, allowing useful conclusions, regarding biomass in Cyprus, to be delivered.</p>