



TECHNOLOGICAL EDUCATION INSTITUTE OF
CENTRAL MACEDONIA
SCHOOL OF TECHNOLOGICAL APPLICATIONS
DEPARTMENT OF MECHANICAL ENGINEERING

Graduate Studies Program:
Academic Year 2014 - 15

**"Renewable Energy Systems: Design,
Development and Optimization"**

Associate Professor K.G. Anthymidis

Subject:

Types, ways of collection and exploitation of Biomass.

Introduction & Motivation:

Biomass is biological material derived from living, or recently living organisms and can be used for many purposes such as industrial (production of electricity and heat), domestic (heating of houses), agricultural (heating of greenhouses) and others. The aim of this thesis is to study the usages of Biomass in our days, especially in the region of Central Macedonia and to determine the main types of it, the main ways of collection of Biomass and their advantages and disadvantages and the future prospects of Biomass.

Implementation & Means:

Study of the relevant scientific Greek and international literature. Utilize the Library of the Technological Educational Institute of Central Macedonia.

References:

- 1) Biomass as Local Resource, Research Approaches to Sustainable Biomass Systems, 2014, Pages 7-17, Toshio Nomiyama, Nobuhide Aihara, Atsushi Chitose, Masaaki Yamada, Seishu Tojo.
- 2) Biomass combustion for greenhouse carbon dioxide enrichment, Biomass and Bioenergy, Volume 66, July 2014, Pages 186-196, Yves Roy, Mark Lefsrud, Valerie Orsat, Francis Fillion, Julien Bouchard, Quoc Nguyen, Louis-Martin Dion, Antony Glover, Edris Madadian, Camilo Perez Lee.

Requirements: Good knowledge of English.