

Master Thesis Brief Description

Thesis Title	Thermal-insulating, petrochemical building materials
Programme of Studies	MSc in Sustainable Energy Systems
Course	MES 580 Master Thesis
Area of Study	Computational Building Physics – Petrochemicals
Student's Name	Kyriaki Kerverou
Students Reg. Number	7708
Supervisor	Dr.-Ing. Paris A. Fokaides, Ass. Professor, Mechanical Engineering Department
Supervisory Committee	Dr George Karagiorgis, Assoc. Professor, Mechanical Engineering Department Dr Byron Ioannou, Ass. Professor, Architectural Department
Semester	Fall Semester 2018
Short Description	<p>The petrochemical industry, which produces chemicals and materials using oil and gas as major raw materials, occupies an important position in the manufacturing and consuming sectors worldwide. In the following years it is anticipated that this industry will also be developed in Cyprus.</p> <p>The purpose of this study is to investigate the perspectives of the development of a sector in Cyprus, producing thermal insulating building materials with the use of petrochemicals as raw material. A literature review concerning the existing analogous industries of thermal insulating materials worldwide should be conducted. A list of products in compliance with the products of the Cyprus building material manufacturing industry should be justified and presented. A technical, financial and environmental assessment, with the use of life cycle costing and life cycle assessment techniques is expected. The study should end-up in specific design proposals for the integration of thermal-insulating petrochemical building materials into the building shell.</p>