Thesis Title	CO2-absorbing, petrochemical building materials
Programme of Studies	MSc in Sustainable Energy Systems
Course	MES 580 Master Thesis
Area of Study	Computational Building Physics – Petrochemicals
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Semester	Fall Semester 2018
Short Description	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. The purpose of this study is to investigate the perspective of the development of a sector in Cyprus, producing CO2-absorbing building materials produced with the use of petrochemicals as raw material. A detailed state-of-the-art analysis on petrochemical products and CO2-absorbing building materials should be conducted. The study should conclude to a specific product, which will be pre-designed and assessed in terms of its thermal, environmental and financial performance. A finite element assessment of the produced product is anticipated, as well as the life cycle analysis of its environmental performance. Design solutions incorporating the proposed material to new or existing buildings should also be delivered.