

Master Thesis Brief Description

Thesis Title	Design of pipelines network for natural gas supply in Cyprus
Programme of Studies	BSc in Mechanical Engineering, Stream Oil and Gas, Frederick University
Course	ASOG 405 Senior Project
Area of Study	Processes Modelling and Simulation
Student's Name	Charalampos Charalampous
Students Reg. Number	8512
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	The scope of this study is to calculate the pressure drop in each pipeline which will be used to connect the three Electricity Stations (Vasiliko, Moni, Dekelia), by changing the diameter and keeping the upstream pressure constant, according to the data collected by DEFA for the compressor station to be installed at Vasiliko region. The calculations procedure was performed with the use of formula Penhandle A using excel spreadsheets, and the boundary conditions selected, presented the natural gas network which is anticipated to be developed in Cyprus in the following years. The optimal design of the network was defined based on the pressure drop and the quantities that will need to be delivered through the network, according to an energy demand projection conducted within this study.