

## Master Thesis Brief Description

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<b>Thesis Title</b>	<b>Acid Gas Removal Unit – An Application in the case of Cyprus Natural Gas Liquefaction Facility</b>
<b>Programme of Studies</b>	MSc in Oil and Gas and Offshore Engineering
<b>Course</b>	MOE 518 Master Thesis
<b>Area of Study</b>	Processes Modelling and Simulation
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<b>Supervisory Committee</b>	Dr Chris Christodoulou, Professor, Mechanical Engineering Department Dr Antonis Papadakis, Ass. Professor, Electrical Engineering Department
<b>Semester</b>	Spring Semester 2015
<b>Short Description</b>	<p>With the recent discoveries of Natural Gas in Cyprus Exclusive Economic Zone, and more specifically in the Aphrodite field, Cyprus Government is examining the available monetisation options for its proven reserves. An option, most likely the preponderant one, is the construction of a Liquefied Natural Gas (LNG) liquefaction plant.</p> <p>This project had the intention to carry out a simulation of the Acid Gas Removal Unit (AGRU) of the proposed Cyprus gas processing plant using the Aspen-HYSYS process simulator. The scope of this was the optimization of the AGRU of such plant. Succession of this optimization would contribute to avoiding process clogging, to meet the LNG product specifications that are set by the contract, prevent corrosion of process equipment and to increase environmental performance, regarding the AGRU aspect, whilst achieving the minimum energy requirements for regeneration. The conclusions of the project finalised and set a standardisation procedure for the operation of the AGRU in order to meet the purification needs and therefore the settings and energy consumption that will be needed in the regeneration phase</p>