

# Automated control of a mineral processing plant

## *Keywords*

Plant wide control, Controller layout, Control Strategy, Model Predictive Control

## *Project Description*

The process to be controlled is a mineral processing plant. A flow sheet of the process is shown in the figure below. The process consists of a number of different chemical process units that can be arranged in different layout on different sites. The control challenge is to structure the larger layout in smaller sections with limits or reduced impact on each other. This is not a trivial task as the flow sheet is highly integrated.

A second task is once the control strategy is more defined it should be tested by simulation of the process. The different sections should be put together to see how the decentralized MIMO regulators work. Guidelines for design of the decentralized MIMO regulators should be given, such that the design of a new mineral processing plant will be easy. Perhaps the design phase can be automated with a graphical tool.

## *Skills required*

Chemical Process knowledge, Process Control, Controller structuring, Matlab & Simulink.

## *Project timing and duration*

Flexible but preferred after March 2015. Duration 6 months.

## *Contact*

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