Exercises simulator automatisation 3th Bachelor marine engineering

Lab exercises 5 and 6:Controlrange and cascadecontrol

1. controlrange

Change the flow of HFO to 100kg/h in steps of 10kg/hand look at what happens on the trend. How could you solve this?

1. Now go to: SP Dual Fuel/ Boiler 1/ Feedwater control

This is a cascade control loop. Change the PID values of the inner as well as the outer loop and look at the same variables as in exercise 1; settling time, response time, overshoot and offset. Look at the reaction if you set the I value at zero in the inner loop. Is this important to have a I in the inner loop? Explain.

Try following setting

Master: P=0.3;I=5;D=3

Slave: P=0.9;I=0;D=1

What do you see, and what will you do?

Always take your time to look at the reaction.

**Remember**

**‘La patience est la vertu de la réussite.’**

**‘Patience is the virtue of success.’**

(Benoît Mbayo, chief engineer and poet)