Control Engineering Innovative Energy Systems LAB Experiments

Report

Elevator experiment

General information

- 1.1 Registration number
- 1.2 Last name, First name
- 1.3 Test bench

Elevator

Controller

Controller			
Parameter	Controller with overshoot	Controller without overshoot	Best set of parameters
Proportional gain			
Integral gain			
Step time, ms			
Overshoot, Hz			
Settling time, ms			
Halt time, ms			

2.1 Which differences were you able to see between the controller parametrizations?



Fig. 1. Controller with overshoot

Fig. 2. Controller without overshoot

Ramp			
Parameter	Linear	S-Ramp	U-ramp
ACC, s			
DEC, s			
Step time, ms			
Overshoot, Hz			
Settling time, ms			
Halt time, ms			

3.1 Which differences were you able to see between the ramp parametrisations? Which [Ramp Type] RPT do you think is the best fit for Passenger elevator applications?

Fig. 5. S-ramp

Fig. 6. U-ramp

General data

4.1 Date

4.2 Key