

MM6: PID Controllers

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1 Reading

Page 179-196 of FC textbook, except subsection 4.2.5.

2 Useful Links

- Control Tutorials for Matlab, <http://www.engin.umich.edu/group/ctm/>
- Process Control Articles, Software Reviews, <http://www.expertune.com/articles.html>
- <http://www.jashaw.com/pid/tutorial/>

3 Content

- Properties of PID control
- Tuning Methods of PID Control
 - Quarter decay ratio method
 - Ultimate Sensitivity method

4 Exercise

Download the simulink file *ZN_tuning_motor.mdl* from the course webpage.

1. Design a P, PI, PID controller for this DC-motor speed control problem according to quarter decay method.