Fact Sheet

Slide System

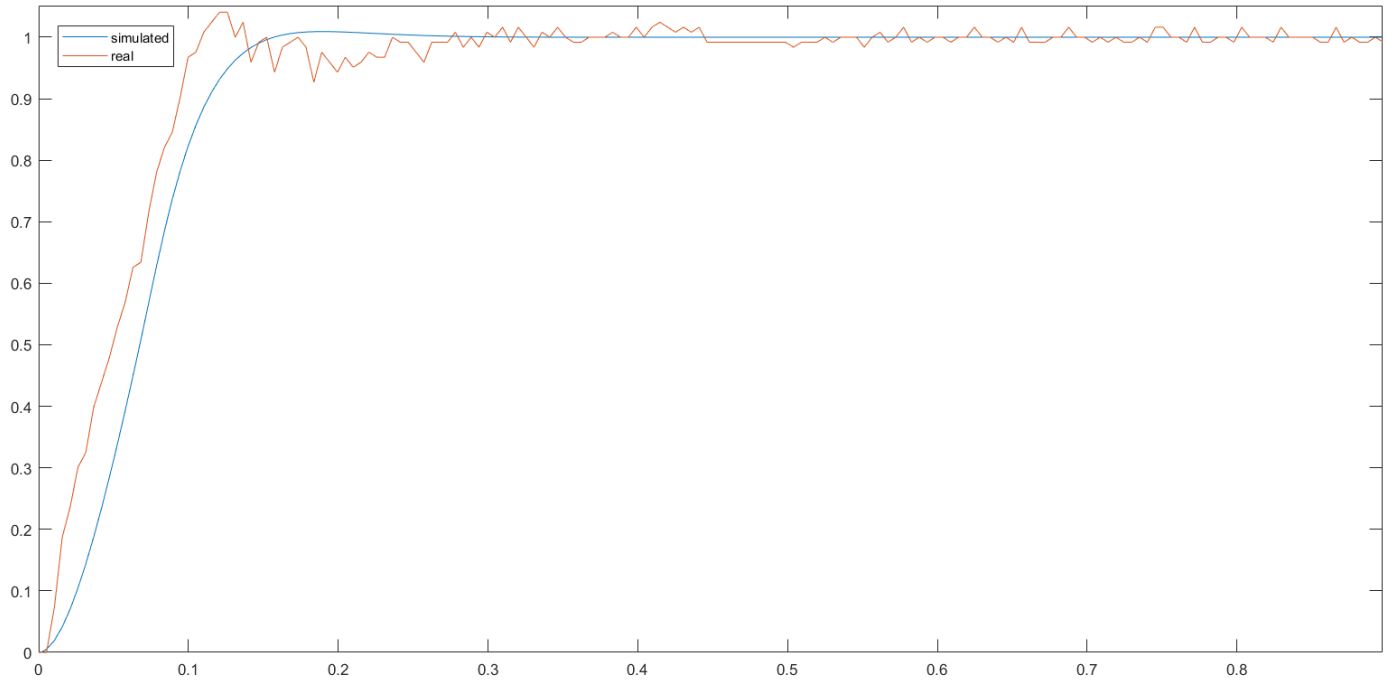
1. Load Inerta: $2.6 \cdot 10^{-6}\ kg \cdot m^2$
2. Transfer Function of the system

$$\frac{U_{pot}(s)}{U_{mot}(s)} = \frac{38.75}{s^2 + 29.78x}$$

3. Sample Frequency: $190.5\ Hz$
4. Transfer Function of the controller

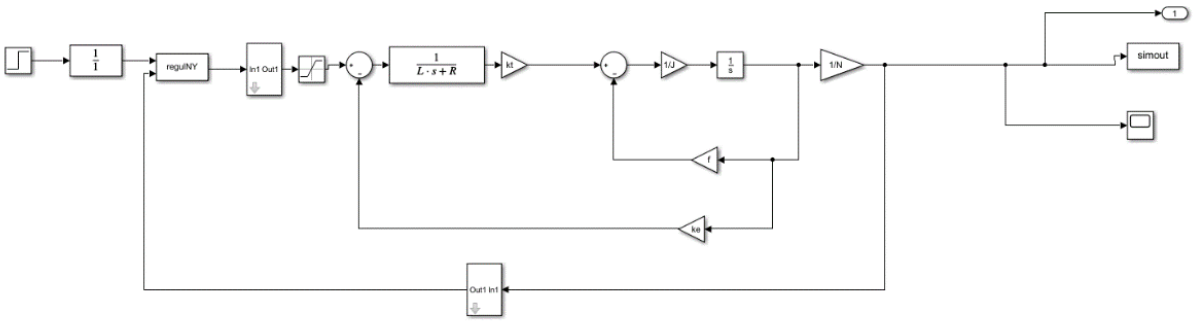
$$D(z) = \frac{85.96 - 73.49z^{-1}}{1 - 0.4379z^{-1}}$$

5. Plots



Conveyor Belt

1. Load Inertia: $2.0906 \cdot 10^{-4}$
2. Simulink Model:



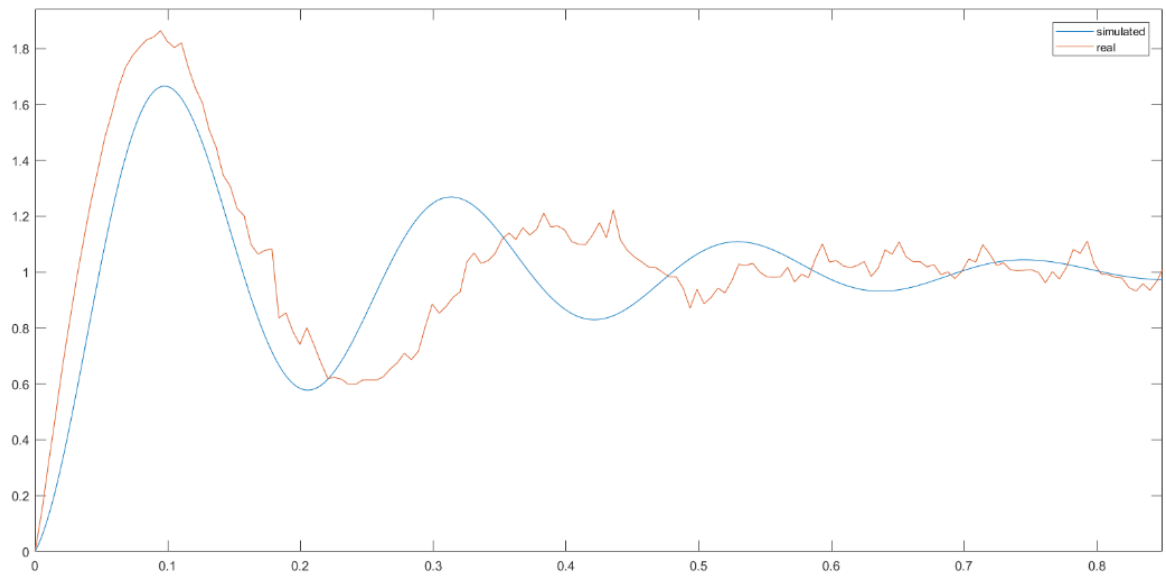
3. Transfer Function of the system

$$\frac{U_{tach}(s)}{U_{mot}(s)} = \frac{1.993}{s + 0 - 0299}$$

4. Sample Frequency: $190.5\ \text{Hz}$
5. Transfer Function of the controller

$$D(z) = \frac{1.068 - 0.9315z^{-1}}{1 - z^{-1}}$$

6. Plots



Group 17

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