Linear Systems TTK4115

Helicopter Lab Report

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1 Part 1

To find a model of the system we started with Newton's 2nd law for rotation, which states that

$$\sum \tau = J * \alpha \tag{1}$$

where τ is the external torque, I is the moment of inertia, and α is the angular accceleration. Using this for each of the three axis gives

$$J\_p\ddot{p} =$$

2 Part 2: Monovariable Control

2.1 Problem 1

2.1.1 Controllability

We look at the controllability matrix:

References