Supervisor meeting

Monday, 14th of March 2016

Report

- Zoom in on the simulation where the approximation is relevant.
- Bode stability margins builds on a system being stable, which can be inferred by Nyquist stability criteria.
- Zoom on the left hand root locus, and explain that the right hand plot is a zoom at origin of the left plot.
- Nyquist - the $Z_{RHP} = N + P_{RHP}$ equation is not directly the Nyquist Stability Criterion, but you can infer stability from it.
- L(S) instead of OL
- Direction of encirclements = sign of N in equation: $Z_{RHP} = \pm N + P_{RHP}$
- Root locus plot - use the SISOTOOL GUI to create the first controller as a first iteration.

New Parameters

- Identify the total moment of inertia and the distance to center of mass (least square estimation).
- See testing... (damping)

Testing

- Try to repeat the step test at 10 degrees in order to match initial conditions.
- We may have different values of the damping in simulation compared to the system.
- Slight difference in frequency might also have something to do with the damping.
- Parameter estimation could be done using least square.
- Put up discrete time model when using least square method.

Date of Examination

- Can not promise anything, because of coordination with external censor.
- It will be attempted to place the examination around ±20th of June.

Next Supervisor meeting

Monday, 21st of March at 13.00