E1 242: Nonlinear Systems and Control (2023j) Homework #1

Due: 23:00, Tuesday, 31 January 2023 (on moodle)

- Four randomly chosen problems will be graded.
- Give clear justification in all solutions.

Problems from Khalil's book 3rd ed: 2.2 (2), 2.12, 2.16, 2.17(2), 2.17(4), 2.20(2), 2.21.

For problems 2.12, 2.16, 2.17(2) and 2.20(2), carry out simulations using MATLAB / Octave / Python and include phase portraits of the systems in a suitable region of the state space.

Compile everything in one single pdf and submit on moodle.