

# Hybrid and Embedded Control Systems, EL2450

## Instructions for Homework

There are **three** homework exercises with strict deadlines (specified on Canvas) for this course.

### Homework Organization

- You may collaborate in groups of 2 students for Homework 1 and 2; and groups of 4 for Homework 3.
- You need to upload your homework to Canvas, as a pdf file.
- You have to use the report template that is given.
- You have to submit only one report per group.
- You have to contact the corresponding Homework responsible for every homework and not the Professor. See the last Section below for the corresponding TAs.
- Download your graded homework on the the *Return Dates* specified on Canvas.
- If you fail a homework, you need to revise your homework according to the comments, and re-submit it to Canvas before the *Revision Deadline*. The graded revisions can be downloaded on the *Revision Return Dates*.
- You need *at least* 40 out of 50 points per homework to pass.
- You need *at least* 20 out of 50 points per homework to have the chance to resubmit.
- Deadlines are strict.

### Homework 3

- You need to do the preparation tasks and write the corresponding part of the report.
- You need to book a (1 hour) time slot for your group for the implementation. The procedure to book a time slot for the lab session is as follows:
  - Decide the 4 students of your group.
  - One of the students in your group is in charge of booking on Canvas the preferable time slot for the lab session. The procedure will be announced during the course.
  - There will be an announcement on Canvas when the on-line booking system will be available for booking.
- During your slot, you do the implementation of the lab at the Smart Mobility Lab, Drottning Kristinas väg 48. It is crucial to come well prepared (with a working code) and on time, in order to complete the task. There will be one computer per group. To work faster in parallel, you are welcome to bring your own computers.
- With the results from the implementation, you need to finalize the report and hand it in.
- You may collaborate in groups of 4 students.

## Writing

- You have to use the report template. Handwriting solutions of other formats will not be accepted.
- Do not copy the questions.
- Motivate your answers well.
  - It is often not adequate to give merely the final results (or numbers).
  - Explain how you derived them and what MatLab functions or references you make use of.
  - Try to use simulation results, plots, and tables to support your statements.
  - Put the references in the end, if any.
  - Be concise!

## TA

- Homework 1, David Umsonst (umsonst@kth.se), Sofie Ahlberg (sofa@kth.se)
- Homework 2: Part 1, 2: David Umsonst (umsonst@kth.se), Sofie Ahlberg (sofa@kth.se)
- Homework 2: Part 3: Peter Varnai (varnai@kth.se)
- Homework 3: Sections 4, 5: Peter Varnai (varnai@kth.se,)
- Homework 3: Section 6, 7: David Umsonst (umsonst@kth.se), Sofie Ahlberg (sofa@kth.se)