Mechatronics: Industrial Product Design, EIEN01

Course Curriculum

(Covid 19 comment at the end)

Course Summary

In this course, the selected product design concepts from the previous course ”Applied Mechatronics” will be further developed. This will be done in two steps: Primary design 1 and Primary design 2.

Primary design 1: (Prim1) In this step the detailed design regarding final choice of material, selection of standard components, drawings (mech. electr.), software structure design and program code writing (as far as possible without access to the built prototype) will be done. *It should be emphasized that ordering of components and material should be done as early as possible when the design is done.*

Primary design 2: (Prim2) In this step the prototype is built and testing, debugging and evaluation is done. Finally, a demonstration of the working prototype should be done at an exhibition, where all groups participate, at the end of the course.

The structure should serve as a template for the work but since all projects are different, several deviations may occur. The group and the supervisor should do this planning and control together.

Supervision

No scheduled time for supervision can be found in the LTH time plan. The group is responsible for setting up meetings with both the LTH and the company supervisors. There should be at least two meetings in each design step.

Documentation and Examination

In both design steps, a written report should be handed in and an oral presentation should be held. After Prim2, the presentation is given at the exhibition. The reports are handed in after the presentations and it should in each report be clear how the work has been divided in the group i.e. who has done/written what. Furthermore, the group members should on one printed copy, which is handed in, sign the front-page. The reports may be looked upon as consecutive parts, referring to the previous ones. The report from the previous course is then also a part of this sequence.

All group members should be present at the presentations since this is a part of the course examination. Example reports are available at the course homepage. The report structure can vary a lot since the type of the projects vary. Consult your supervisor if you have questions.

Remember to invite the company supervisors to the presentations!

Schedule (could be changed)

Presentation of Prim1:	Thursday March 10 10:15
Presentation of Prim2/exhibition	Tuesday May 25 10:15
Report Prim1 handed in latest by	Sunday March 27
Report Prim2 handed in latest by	Sunday June 12

Contact

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Homepage

The course homepage is found at: http://www.iea.lth.se/mekpf
but Canvas is primarily used for the course material.

Covid 19 Adaption of the Course

During the startup of the course the spreading of Covid 19 is at a very high level. Because of that the introduction will be online but we hope that the situation will improve so that the following parts of the course will be as “normal” as possible. The restrictions allow us to do the teaching both on site and online at the moment but this can change so please follow the LU and LTH web-pages for updates.