Kursanalys[1]

Kursdata

Kursens namn	Design of Permanent Magnet Synchronous Machines
Kursnummer	EJ2221
1	7.5 ECTS
När kursen genomfördes	Period 1 H11
Kursansvarig och övriga lärare	Juliette Soulard, lectures, project meetings and support Stephan Meier, project meetings Andreas Krings, project meetings and support Asadullah Siddiqui, project support
Undervisningstimmar, fördelade på F, Ö, R, L	Lectures 12 hours Project support 45 hours Project meetings 30 hours (10 hours for each student)
Antal registrerade stud.	12
Prestationsgrad efter 1:a examenstillfället, i %	91.7%
Examinationsgrad efter 1:a examenstillfället, i %	91.7%

Mål

Ange målen för kursen	The aim of the course is to understand how to make an electromagnetic and thermal design of permanent magnet synchronous machines from any given set of specifications. The knowledge is applied by designing a machine for an industrial application. See course description for learning outcomes (list of 12 items)

Kursens pedagogiska utveckling I

Beskriv de förändringar som gjorts sedan förra kursomgången	• This year, it was decided to work with only one application, ITT's pumps, allowing taking advantage of the presence of 2 course participants from the company. • With 15 students accepted in the course, the number of weekly reports was reduced from 6 to 4, presentations from 5 to 3 and oppositions from 3 to 2. • A tutorial about winding using a new reference was tested with one student: it was too difficult and time-consuming. The tutorial could be used and develop further as part of a PhD course instead. • Students were filmed during the presentations (via Adobe Connect) and they could re-watch their own presentation. It also allowed to re-play the comments they received. The lectures were also recorded but the material was only accessible for the students missing the lecture (rights?).

[1] Mallen togs fram av Jan Scheffel, studierektor Alfvénlaboratoriet

Kursansvarigs berättelse

Helhetsintryck	The students worked well together with the teaching team and all the students reached the learning outcomes to a satisfactory extent. The two industrial participants from the application company gave extra valuable inputs by sharing professional experience, even though it was bitwise troublesome for the teaching team.
Positiva synpunkter	The work load was more realistic for the students and slightly better for the teachers (record number of students) than previously due to reduced number of deadlines.
Negativa synpunkter	Only 11 students really followed the course, one did not come, two realized they did not have the pre-requisites, one dropped later after realizing the work load was too high (3 // courses). The unknown number of students with a high number of applicants (21 for 12 places) and the difficult administrative system created a lot of extra work that did not give anything. Weaker students produced less than last year due to reduced weekly reporting. The work load for the teachers is too peaky with so many reports to read for the same day.
Syn på examinationen	Students complained about the unfair weight accorded to report writing but the examiner does not agree: writing a good report shows a higher degree of understanding.
Syn på kurslitteraturen	The students started to understand why there is no book or compendium, thanks to better introduction during lecturing. The list of references should be improved and made more visible in lectures. The new references should be uploaded in Bilda.

Teknologernas syn på kursen

Kort sammanfattning av studienämndsmöte eller studentenkäter	Only student questionnaire.
Speciellt intressanta kommentarer	
Var förkunskaperna OK?	Yes, except for the students who dropped the course and one of the industry participants. Write more information on course webpage: course recommended to be taken in 2nd year of Master (requires a ground course in electrical machines at MSc level).

Kursens pedagogiska utveckling II

Hur förändringarna inför detta läsår fungerade	The best students produced as good results as the previous years. The weaker students produced less since they were not as much pushed by the deadlines. However, the load is still too high for the teaching team with the report reading part. It was really beneficial for the students understanding to have access to the teachers in the first support time when the commented reports were given back.

Förändringar som bör göras inför nästa kursomgång	• Update information on webpage (pre-requisites, only 15 ECTS during the period). • Re-think the project deadlines and organisation to spread the report reading load for the teachers. • Plan the course for 10 (+2 ind) students whatever the number of pre-applicants. • Improve reference list and link to lecture OH • FAQ in Bilda • Publish selected final and status reports from previous years in Bilda • Create guidelins document for commenting status report (homogeneity of comments from different teachers) • Move Emetor to the new server (links, test, etc…), and improve help documentation about inductance, iron loss and efficiency calculation) • Evaluation form for the teachers to write comments during final report reading and presentation of each student

Övrigt

Kommentarer

Document filled in by Juliette with comments from Andreas and Stephan. Last modifications 2012-05-08.

Instruktioner

1) Fyll i fälten nedan **inom en månad efter kursens slut**. (Viktigt krav från KTH!)
Skicka sedan till studierektor (som vidarebefordrar till prefekt och programansvarig).

2) Försök att **ge så kompletta uppgifter som möjligt**.
Tänk på att kursanalysen blir ett hjälpmedel inte bara för teknologerna, utan även för Dig som lärare.

3) Om du behöver flera rader, är det bara att trycka retur; fälten expanderar automatiskt.

4) Nomenklatur: F - föreläsningar, Ö - övningar, R - räknestugor, L - laborationer

5) Med ”prestationsgrad” avses antalet presterade poäng hittills på kursen (inlämningsuppgifter, projektuppgifter, laborationer etc.) dividerat med antalet möjliga poäng för de registrerade studenterna.

6) Med ”examinationsgrad” avses antalet studenter av de registrerade, som klarat samtliga kurskrav. Kurssekreteraren hjälper gärna till här.

7) **Teknologernas syn på kursen** skall framgå genom diskussion med dem (vilken sammanfattas i kursnämndsprotokoll) eller genom sammanställning av utdelade enkäter.

Det är viktigt att kursanalysen tydligt **visar utvecklingen av kursens kvalitet** från ett läsår till nästa.