DE6-Spring 2011

Zhenyu Yang

Coordinator

Outline

- ❖ Programme
- ❖ Curriculum
- ❖ Courses, teachers, project supervisors
- ❖ Projects, groups and group rooms
- ❖ Semester schedule – AAUE homepage
- ❖ Booklist – see semester homepage
- ❖ Support
- ❖ Semester group meetings, semester evaluation

Programme

❖ Semester start meeting

  ❖ Welcome
  ❖ Briefing about the semester

  ❖ Establishment of groups

Curriculum

❖ **Theme**: Control and Filtering

❖ **Purpose**:

  – To enable students to **apply** modern control techniques for analysis, design, and implementation of control systems
  – To enable students to **apply** signal processing techniques for analysis, design and implementation of signal processing systems
  – To give students a **comprehension** of fundamental issues of process control systems
  – To give students an **understanding** of basic knowledge of probability, statistics and stochastic processes

Courses & Teachers

DE6 2011

Coordinator: Zhenyu Yang
Secretary: Britta Jensen

Semester mail: ??"a"student.aaue.dk

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Courses:

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Groups

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Internship

Book list

Meetings

AAUE scheme

Study plan

Relevant links

Title	Teacher	Type
Probability, statistics and stochastic processes	Daniel Ortiz-Arroyo	**SE** (3 ECTS) (one ECTS self-study) (Prøver: Tirsdag, den 09.06.10, skriftlig)
Modern control	Zhenyu Yang	**SE** (3 ECTS) (one ECTS self-study) Prøver:Løbende evaluering
Signal processing ZY, AH	Zhenyu Yang / Akbar Hussain	**SE** (3 ECTS) (one ECTS self-study) Prøver:Løbende evaluering
Process control systems	Zhenyu Yang	**PE** (2 ECTS)
Course for internership	Faculty	total 30 ECTS with Internship
Scientific Method	done in DE5 semester	**SE** (2 ECTS)

News:

- reviderede studieordninger for diplomingeniørstuderende, beskrivelsen af Afgangsprojekt **(02.02.09)**
- Evalueringen af praktikrapporten og afgangsprojektet skal foregå samme dag **(02.02.09)**

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Skema for forårssemesteret 2011 - DE6

TID	UGE	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
MANDAG	For-middag			SIG1 B206 ZY		SIG1 B202 ZY	SIG B206 AH	StTur OUT	StTur OUT	PSTO1 B202 DO	PCS B206 ZY	PCS B205 ZY	PCS B205 ZY	PCS B205 ZY	Påske							Pinse		
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MODC - DE6: Modern Control   PCS - DE6: Process Control Systems   PHI - All 4th, 6th, 8th semesters: Project Hand In   PSTO1 - DE6: Probability, Statistics & Stoc. proc.
SIG - DE6: Signal processing   SIG1 - DE6: Signal processing   StTur - 6. semestre: Studietur

DE6 2011 - projects

For Diploma sutdent(s): There is no specific 6-semester project required. Instead, the Internship (Praktis) will be carried out since 1st of April.

For Bachelor student(s): a thesis project needs to be carried out in this semester. Some potential project proposals can be found in the following:

The project proposed in the following can be modified/extended so as to adapt to specific interests. Pl. contact Zhenyu...

Deadline for the delivery of the project: **kl.12.00 06 June 2011**

1) Optimization of a Multiple-Pump Boosting System (cooperated with Grundfos A/S)

2) Active noise control: (one, two), Zhenyu Yang

3) Control of a Three-Tank Process System

4) Control of a Beam and Ball System

5) A Study of Diverse Control Strategies for an Oil and Gas Pipeline Transport System (cooperated with Rambøll Oil & Gas A/S)

6) Control of a Gantry Crane System (a video from previous project work)

7) Stabilizing Control of an Inverted Pendulum Using the Reaction Wheel Mechanism (a video from previous project work)

8) Revisit of Modeling a Vapor Cmpression Heat Pump System (cooperated with Danfoss A/S)

9) Advanced Signal Processing Algorithms for Bearing Fault Detection and Diagnosis. (cooperated with Grundfos A/S)

10) Re-formulation of SKOV's Indoor Climate Stable Model Using Single-Zone Concep. (Cooperated with SKOV A/S)

11) Control of a One-dimensional Levitation System   (a video from previous project work)

12) Modeling and Control of modern wind turbine (cooperated with kk-electronic A/S)

link to the project webpage for IRS1 semester

Groups, Rooms and Exams

❖ Establishment of groups

❖ Students move into group rooms
  ❖ After groups has been confirmed by Britta

❖ Examination

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Internship (Praktik) – limits

- Should start from 1st April
- At least 20 weeks (app 5 months) in company
- Allowed to have 2 months break (the finishing date is flexible then)
- Exam will be external censor
- *Exam will be combined with diploma project exam, and also follow the 7-scale mark.*

Model 1	
Februar	Undervisning (12 ECTS)
Marts	
April	Praktik (18 ECTS)
Maj	
Juni	
Juli	Sommerferie
August	
	Eventuelle reeksamener
September	

September	Praktik (12 ECTS)
Oktober	
	Aflevering af praktikrapport
November	Kurser/afgangsprojekt (18 ECTS)
December	
	Aflevering af afgangsprojekt
Januar	Eksamen

Orientation: Diplomingeniør student(s)

Studieordninger for diplomingeniørstuderende fra ESN (Jan 200

Retningslinier for diplomingeniørpraktik fra Fakulteter

Opbygning af diplomingjørernes 6. og 7. semester fra ESN (Nov 05 2008)

Forslag til diplomingjørernes 6. og 7. semester fra ESN (Nov 05 2008)

Some materials from Information meeting (Nov. 07 2008)

Esbjerg areas

Rambøll Oil & Gas A/s

Mærsk Oil & Gas A/s

ABB (Esbjerg)

K.J Industries

Semco Marintime A/s

Dong Energy - Esbjerg Power Station

COWI A/S

Seelen A/S

MacArtney A/S

Blue Water Shipping A/S

Force Technology (Esbjerg)

Offshore Center Danmark (also checkin

Esbjerg Business Development Centre

others

Bang & Olufsen A/S (Struer)

Grundfos A/S (Bjerringbro)

Danfoss A/S (Nordborg)

DONG Energy (Fredericia)

Sauer Danfoss A/S (Nordborg)

SKOV A/S (Roslev)

kk-electronic A/S (IKAST)

Vestas Wind Systems A/S (Randers)

Siemens Wind Power A/S (Brande)

Danish Wind Industry Association (also ch

B & R Denmark (Odense)

Velux AIS (Hørsholm)

APC Denmark ApS (Kolding)

Sydvestjysk Udviklingsforum

Kolding Erhvervsråd

http://www.fredstedconsulting.dk/?Firma_profil

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Support

❖ Secretary: Britta M. Jensen 79127693
bj@aaue.dk

FAX: 79127710

❖ IT support: find relevant information at
http://www.aaue.dk/adm/dk/edb/

❖ Laboratory: E-lab

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