

Market-driven Systems, FRTN20, spring 2012

Administration

Responsible for the course is associate professor Charlotta Johnsson (046-222 87 89) at the Department of Automatic Control. Teaching assistants are Alfred Theorin (046-222 32 70) and Vanessa Romero-Segovia (046-222 97 43). Secretary of the department is Eva Westin (046-222 87 87). Their offices are on the 2nd and 5th floor of the Mechanical Engineering building.

Prerequisites

Automatic Control, Basic Course, (FRT010)

Course Material

The course material consist of a set of articles and chapters from various books. The material is collected in a binder that can be bought at the Department of Automatic Control. The binder will also be sold at the lectures and exercise sessions during the first week of the course (price 100 SEK).

Lectures

The lectures are given as follows:

Tuesdays 8.15-10.00

Thursdays 10.15-12.00

The lectures on Tuesdays are given in M:D except for 15/5 when it is given in M:B.
The lectures on Thursdays are given in M:D except for 15/3 when it is given in M:B.

Extra lecture 22/3 8:15-10:00 in Seminarroom of Autoamtic Control (3rd floor M-building).

The lectures are given by Charlotta Johnsson (046-2228789), Anders Rantzer (046-2228778), and Bo Bernhardsson (046-2228786), and guest lecturers.

Exercise sessions

The exercise sessions are given as follows:

Wednesdays 8.15-10.00

Fridays 8.15-10.00

The exercise sessions on Wednesdays are given in M-L2 (M-building), except 14/3 when in M:L1.
The exercise sessions on Fridays are given in M-M1 (M-building).

The teaching assistants are Alfred Theorin (046-222 32 70) and Vanessa Romero-Segovia (046-222 97 43), M-building 2nd floor.

Laboratory sessions

The two laboratory sessions are mandatory and are given in connection to different parts of the course. Booking lists are posted on the web page. Before the lab sessions some home assignments have to be completed. No reports are required after the labs.

<i>Lab</i>	<i>week</i>	<i>date</i>	<i>Room</i>	<i>Responsible</i>	<i>Content</i>
1	13	26/3-30/3 halfday	LabB	Alfred Theorin/Vanessa R-Segovia	Batch Control
2	18	30/4-4/5 halfday	LabB	Alfred Theorin/Vanessa R-Segovia	Distributed Systems

Exam

The exam is given Friday May 25, 2012 at 08:00-13:00 in room Sparta-A. A second occasion is given in August 2012. No lecture handouts, exercise materials or hand-written notes are allowed.

Weekly plan

<i>Week</i>	<i>Date</i>	<i>Lecture</i>	<i>Content</i>	<i>Who</i>
11	13/3	L1	Intro Continuous systems	Charlotta Johnsson
	14/3	E1		Alfred/Vanessa
	15/3	L2	Discrete Systems	Charlotta Johnsson
	16/3	E2		Alfred/Vanessa
12	20/3	L3	Batch Systems	Charlotta Johnsson
	21/3	E3		Alfred/Vanessa
	22/3	Extra K1 8-10	Project information (start-up)	Charlotta Johnsson
	22/3	L4	Manufacturing Operation Systems Key Performance Indicators	Charlotta Johnsson
	23/3	E4	(moved to E5)	Alfred/Vanessa
13	27/3	L5	Guest Lecture (tentative date)	Krister Forsman, Perstorp
	28/3	E5	Make Exercise4	Alfred/Vanessa
	29/3	L6	--	
	30/3	E6	--	--
	26/3- 30/3	Lab 1	LAB: Batch Control	Alfred/Vanessa
Easter- holiday (14, 15)				
16	17/4	L7	Model Predictive Control	Anders Rantzer
	18/4	E7		Alfred/Vanessa
	19/4	L8	Utility Disturbance Management	Anna Lindholm
	20/4	E8		Anna/Alfred/Vanessa
17	24/4	L9	Distributed control with prices	Anders Rantzer
	25/4	E9		Alfred/Vanessa
	26/4	L10	Game theory 1	Bo Bernhardsson
	27/4	E10	Game theory 2	Bo Bernhardsson
18	1/5	L11	--	
	2/5	E11	--	
	3/5	L12	Guest Lecture	Kurt Jörnsten
	4/5	E12		Alfred/Vanessa
	30/4-4/5	Lab 2	Distributed systems	Alfred/Vanessa
19	8/5	L13	--	
	9/5	E13	Potential visit to Automation University	Charlotta Johnsson
	10/5	L14	Potential visit to Automation University	Charlotta Johnsson
	11/5	E14	--	
20	15/5	L15	Project presentations	
	16/5	E15	Project presentations & Summary of the course	
	17/5	L16	--	
	18/5	E16	--	
21	25/5	tenta		