

# Welcome to DAT093

## “Introduction to electronic system design”

Lars Svensson  
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# Why?

1. Electronic design in system context

2. Brush-up of HDL-based digital design

- Complement MCC092 “Digital Integrated Circuit Design”
- Top-down vs. bottom-up

3. Basic DSP implementations

# What?

- Lectures (1 to 3 per week)
- VHDL kick-start workshop (week 1)
  - Compulsory!
- Lab sessions (1 each in weeks 2–7)
  - Compulsory!
  - Pre-lab preparations (important!)
- Sit-down exam (Oct 27, 08:30 – 12:30)

# Examination?

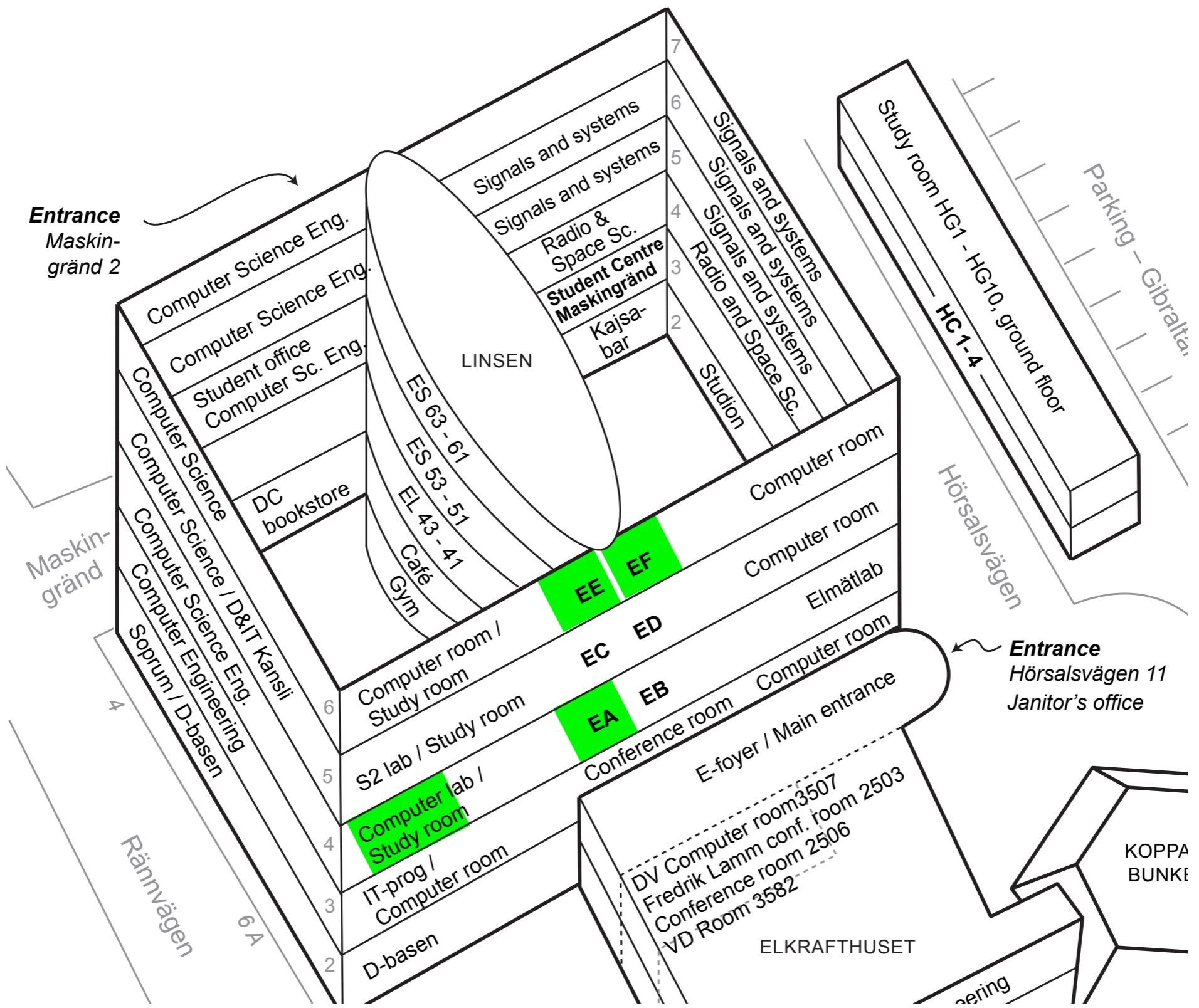
- Need to complete lab series and pass sit-down exam to pass the course.
- Grade computed from sit-down result + bonus points earned during lab series.
- Details on course web page in PingPong

# When?

	Lab session (w 2–4)	Lab session	Lecture	
L	U	N	C	H
Lecture		Lab session		
				Lecture

- Typical week (details in PingPong)

# Where?

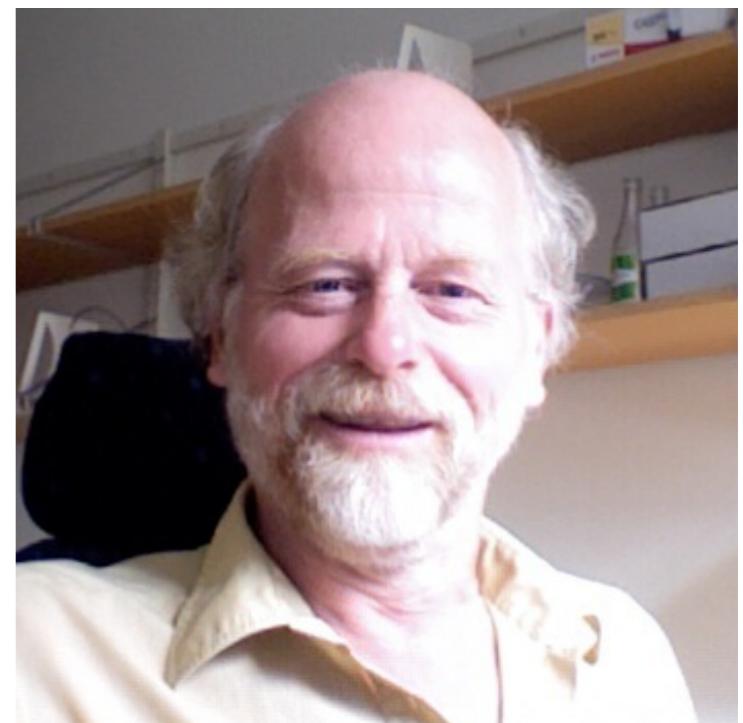


# Kick-start workshop?

- Initial lab session in week 1 (that is, Wednesday + Friday this week)
- Small VHDL design / simulation tasks to get up to speed with language, tools
- Wed 8–12 (+ Fri 10–12), or Wed 13–17 (+ Fri 8–10)
- Students will be assigned to one alternative
  - See me during break if either is impossible for you



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Likai Chu  
[likai@student.chalmers.se](mailto:likai@student.chalmers.se)

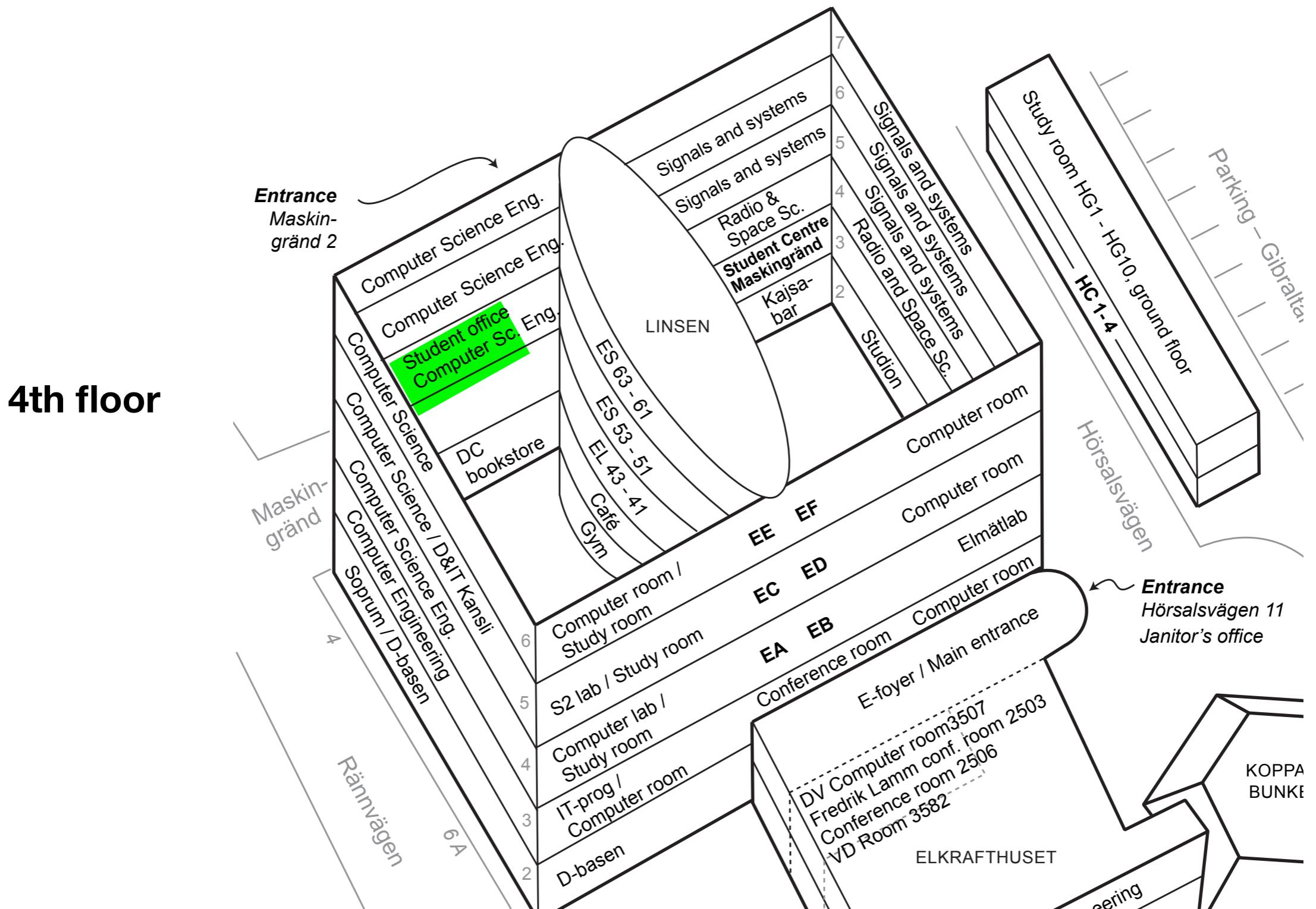


Christian Krizan  
[krizan@student.chalmers.se](mailto:krizan@student.chalmers.se)



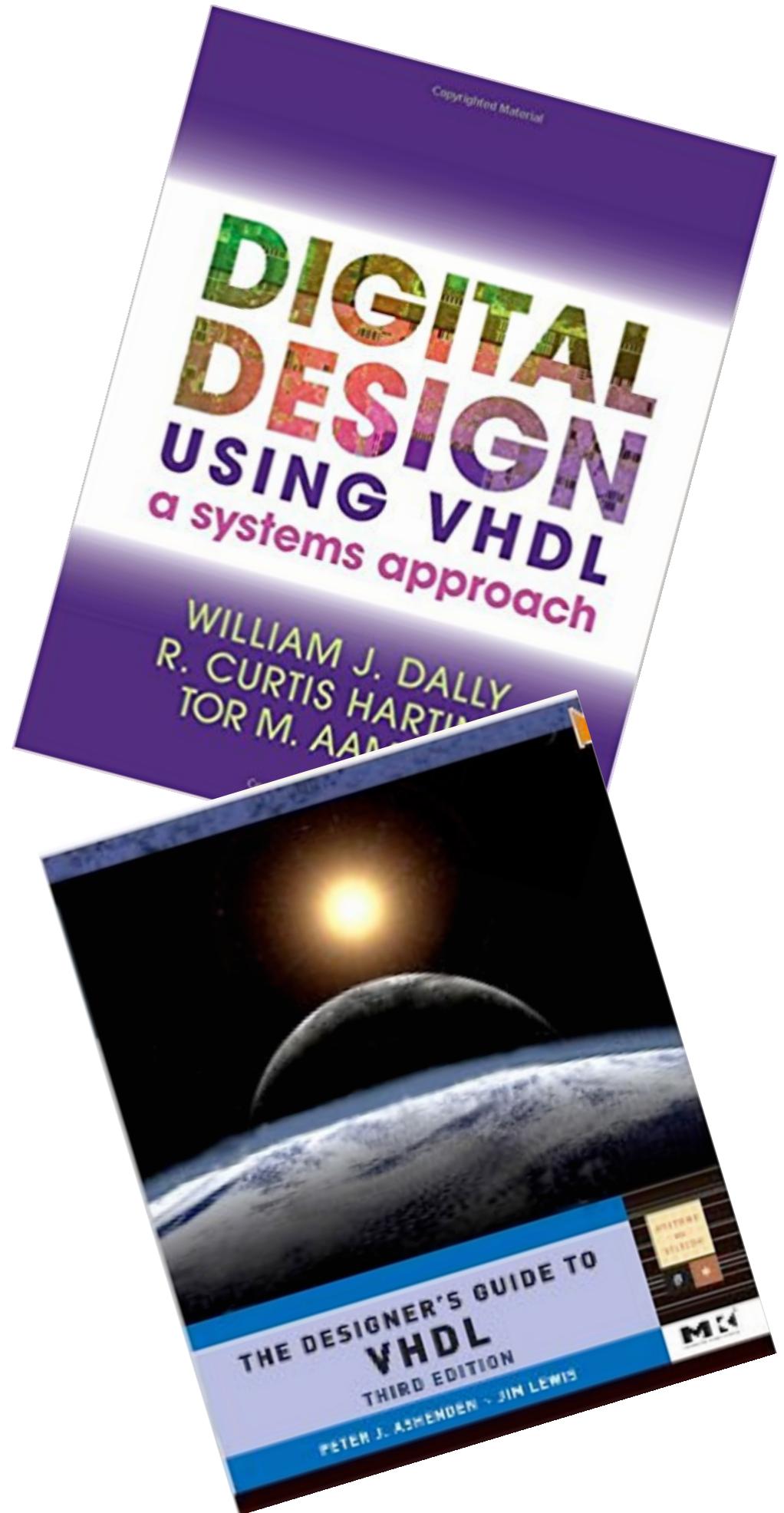
Kenneth Peter  
[peterke@student.chalmers.se](mailto:peterke@student.chalmers.se)

# Offices

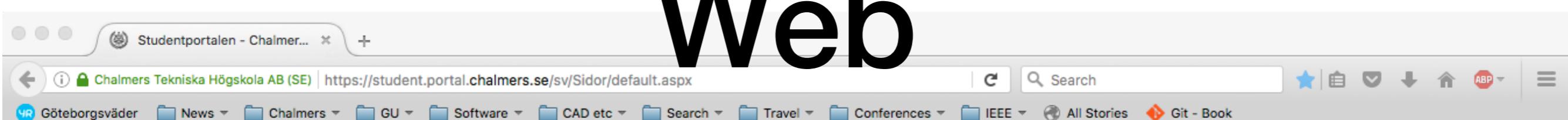


# Literature

- No textbooks specified for course
- VHDL textbook
  - Suggested: Dally et al, “Digital Design using VHDL”
- VHDL reference book
  - Suggested: Ashenden, “Designer’s Guide to VHDL”
- Handouts, lab PMs, other material will be posted in PingPong



# Web



Studentportalen - Chalmer... +

Chalmers Tekniska Högskola AB (SE) | https://student.portal.chalmers.se/sv/Sidor/default.aspx

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Sök ämne

In English

Som inloggad får du tillgång till alla våra studenttjänster. [Logga in](#)



## Ny student 2016

Tackat ja till din plats? Sommarmatte? Vad händer vid terminsstart? Var ska jag vara och när? Här hittar du viktig information om studiestarten.

## Kalendarium - Studentportalen



**AUG 29**  
2016 Terminsstart för Chalmerister  
på masterprogram  
Ny student 2016

**AUG 29**  
2016 Terminsstart och upprop för  
Sjöbefäl klass VII  
Ny student 2016

**SEP 09**  
2016 Information för eftersläntrare  
Ny student 2016

**SEP 15**  
2016 Välkomstkväll på  
Världskulturmuseet  
Ny student 2016

## Nyheter - Studentportalen



Utlysning av stipendier: Sverige-Amerika  
Stiftelsen  
2016-08-19

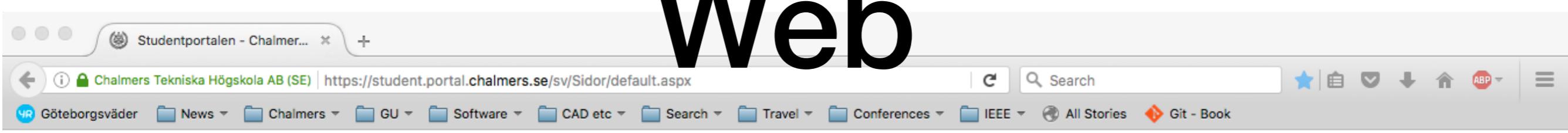
Nyheter i reglerna om examination  
2016-08-12

AnnTherese tar sats mot masterexamen  
och nya tävlingar  
2016-08-08

Intresserad av praktik i Tyskland?  
2016-08-03

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**Incoming student 2016**

Welcome to Sweden, Gothenburg and Chalmers! Here we have collected useful information for you.



**Calendar - The Student Portal**

- SEP 01 2016** Apply for a Personal identity number  
Incoming student 2016
- SEP 07 2016** Improve your study skills  
Incoming student 2016
- SEP 09 2016** Information for latecomers  
Incoming student 2016
- SEP 15 2016** Welcome evening at the Museum of World Culture  
Incoming student 2016

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**News - The Student Portal**

- Updated rules regarding examination  
8/12/2016
- Change in the re-examination periods from next academic year, 2016-2017  
6/21/2016
- Share Latex for students at Chalmers  
4/1/2016
- Gas leak in the Chemistry Building  
2/16/2016

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### Find on campus with the app ChalmersMap

The app helps you to find lecture rooms, schedules and much more.

Start >

### News

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SEP  
09  
2016

### Information for latecomers

Incoming student 2016

SEP  
15  
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Welcome evening at the  
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Coming student 2016

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### Hello all new students!

You are welcome to take advantage of

4/1/2016

Gas leak in the Chemistry Building

2/16/2016

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### The academic year - dates and times

See how the academic year and the semesters are scheduled and the important dates you should keep in mind.

### Shortcuts

[Schedule / TimeEdit](#) [Library](#)

[Academic year](#) [Student Union](#)

[Ping-Pong](#) [Master's thesis](#)

[Book group room](#) [Student Centres](#)

[Rules and directives](#) [About the Student Portal](#)

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### Available jobs

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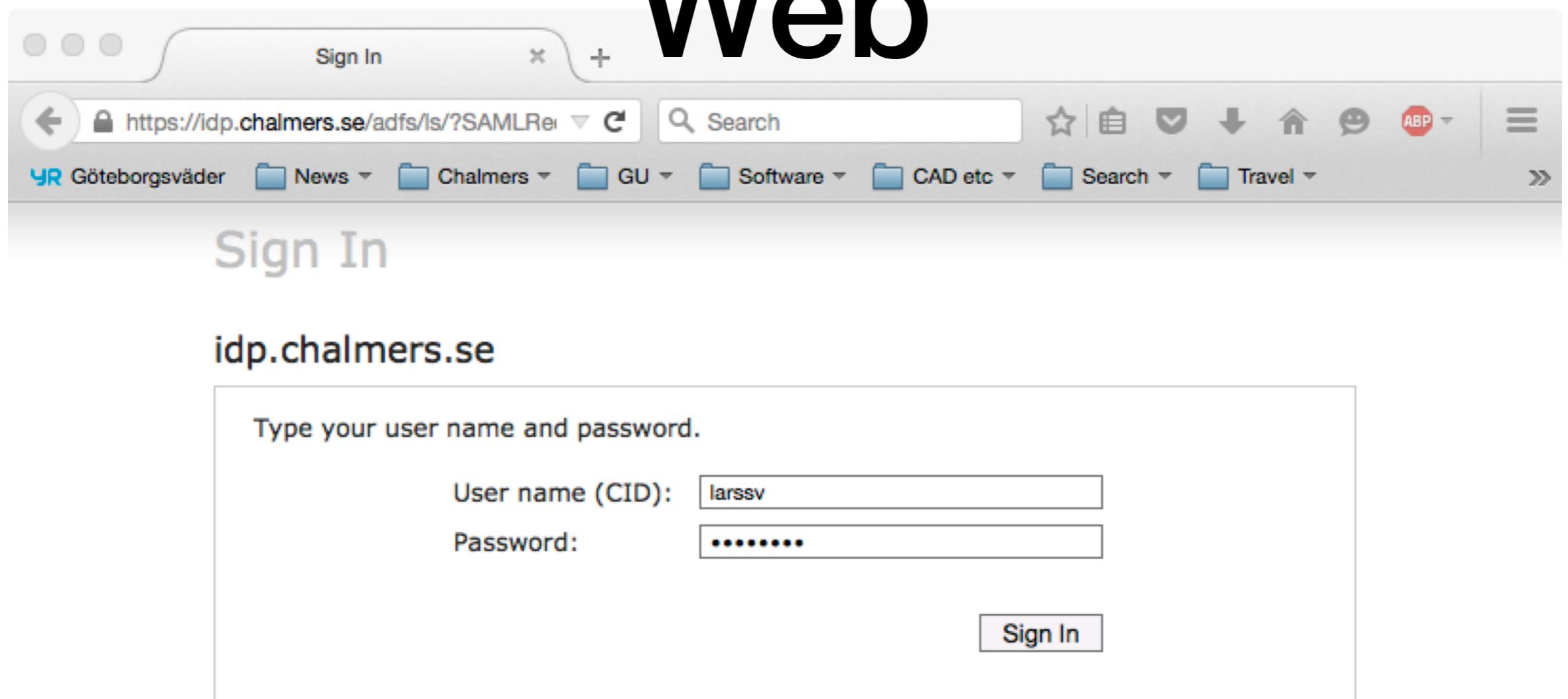
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# Web



A screenshot of a web browser window. The title bar says "Sign In". The address bar shows a secure connection to "https://idp.chalmers.se/adfs/ls/?SAMLRe". The page content is a sign-in form for "idp.chalmers.se". The form instructions say "Type your user name and password." It has two text input fields: "User name (CID):" containing "larssv" and "Password:" containing a redacted password. A "Sign In" button is at the bottom right. The browser interface includes a search bar, a menu bar with "Göteborgsväder" and various links like "News", "Chalmers", "GU", "Software", "CAD etc", "Search", and "Travel", and a toolbar with icons for search, refresh, and navigation.

Sign In

idp.chalmers.se

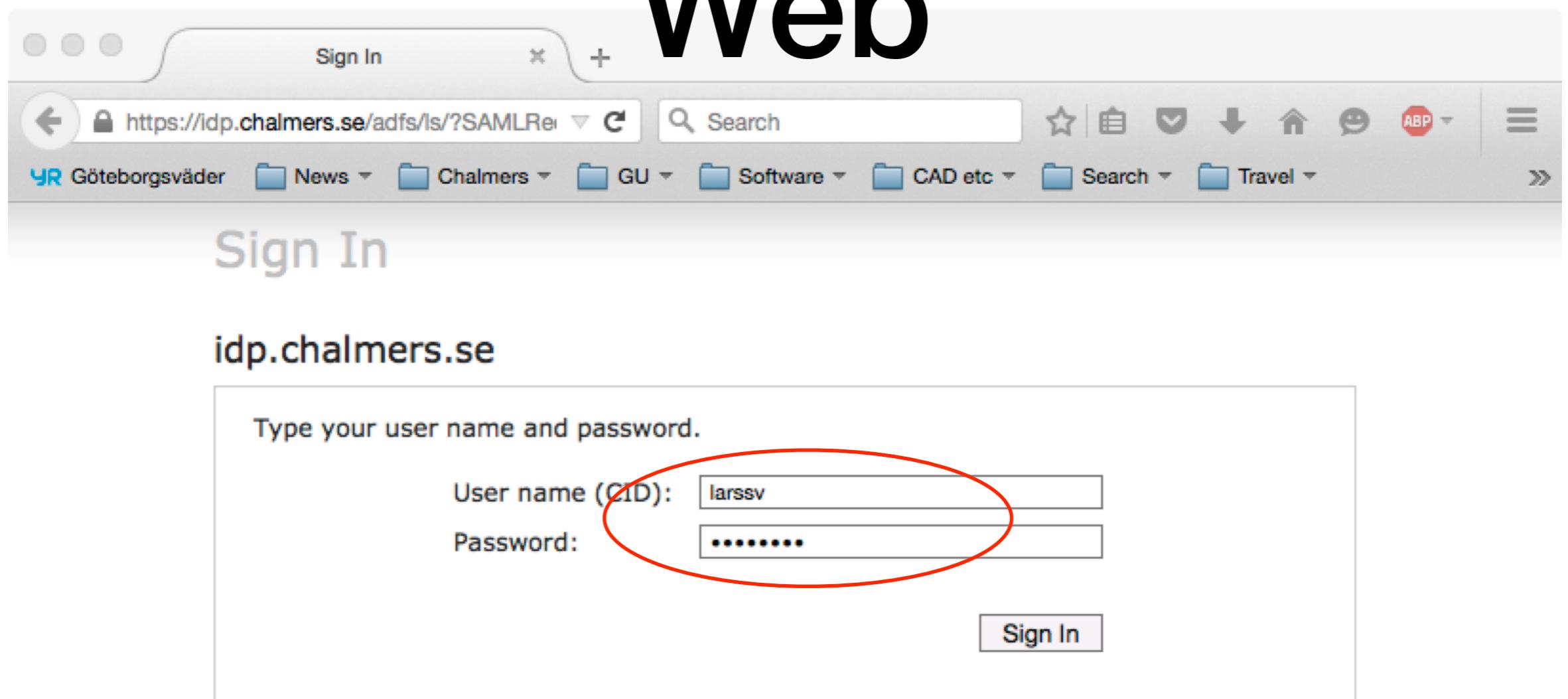
Type your user name and password.

User name (CID): larssv

Password: .....

Sign In

# Web



# Web

The Student Portal at Chalmers Start page [PING PONG]

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## CHALMERS

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Start page

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Choose event... 

Recently visited events

- DAT093\_Introduction to electronic system design\_HT16
- DAT093\_Introduction to electronic system design\_HT15
- Lärarforum

## Welcome Lars Svensson!

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1809 

What's new 

- 1 unread messages in *Information*
- DAT093\_Introduction to electronic system design\_HT14: 11 unmarked assignments
- DAT096 DAT096 Konstruktionsproj... i inbyggda elektroniksystem V16: 55 unread messages

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The Student Portal at Chalmers > Message board - DAT093\_

https://pingpong.chalmers.se/launchCourse.do?id=6988

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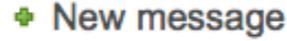
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Start page > Events > DAT093\_Introduction to electro... > Message board

### DAT093\_Introduction to electronic system design\_HT16

 Event  Message board

 New message  Copy messages  Delete selected messages

Page: 1 Message per page: 50

<input type="checkbox"/> All	<u>Heading</u>	<u>Message for</u>	<u>Last changed</u>	<u>Shown until</u>	<u>Read by</u>	<u>Public</u>
<input type="checkbox"/>	<a href="#">Welcome to the 2016 installment of DAT093!</a>	Members	27 jun 2016 14:08	From now on	<a href="#">4 (7)</a>	No

 Communication

 Members

 Message Board

 Project groups

1809

15



# Web

Start page > Events > DAT093\_Introduction to electro... > Message board

## DAT093\_Introduction to electronic system design\_HT16

### Event

 What's new

 Content

 Documents

 FAQ

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### Links

 TimeEdit schedule

### Message board

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# PingPong pages

- 36 students listed, 31 registered (as of this morning)
  - Need to register for course to have full PingPong access!
  - Note: student registrations may take overnight to propagate to PingPong!
  - Session assignment for workshop will be on “open pages” (find from web course catalog, or email me)
- Still to be posted:
  - Lab groups for second half (co-assigned with MCC092)
  - Expect these in week 2

# Course evaluation

- Student representatives collect feedback from fellow students and feed to teachers
  - One startup meeting w/ teachers
  - One meeting in week 4–5 w/ teachers, for early feedback
  - One meeting after end of course, for summarizing the feedback (w/ teachers and management)
- Web-based questionnaire after course

# Student reps:

- Sinan Ding
- Emil Emanuelsson
- Prasanna Kotrappa
- Tayyaba Tahseen
- Erik Tilly

# Changes

- 2015:
  - Lab series reshuffle, break after lab 3, peer code review
  - Adjusted grading to emphasize lab series
  - Industry guest lectures
- 2016:
  - VHDL kick-start workshop added in week 1
  - Industry guest lectures dropped again :-(
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Your Feedback Matters!