

Konsumentelektronik - EITA45 -

<http://www.eit.lth.se/kurs/eita45>

- Optional for E₅, F₂, M₄, N₂ students
- G1 (grundnivå)
- 4½ credits

Kaan Bür, 2017

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Famous Last Words

- "This '**telephone**' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."

-- *Western Union internal memo, 1876.*



Famous Last Words

- “There's no chance that the **iPhone** is going to get any significant market share.”

-- Steve Ballmer, former CEO of Microsoft, 2007.



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Course Objectives

- An overview of electronics you use everyday
- How these are built, how they work
- Technologies behind consumer electronics
- Critical evaluation of electronics products



Intended Learning Outcomes

1. *Knowledge and understanding:*

- a) **Follow** technical discussions and literature in the area of consumer electronics;
- b) **Explain** the basic mechanisms behind most common electronic products; **describe** their functions.



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Intended Learning Outcomes

3. Critical judgement and evaluation:

- a) **Be able to judge/evaluate** the quality and performance of consumer electronics products and their design.



Course Structure

- 11 lecture seminars + 1 project seminar
 - by teachers and/or experts
 - on Mondays, 18:15 – 20:00
- Reflections (mandatory)
- Project (optional)



Topics

1. Radio
2. Digital audio
3. Wireless communications, mobile phones
4. Computers
5. Internet
6. GPS and location estimation
7. Digital cameras and moving pictures
8. Electronics' lifecycle
9. Batteries, power supplies, light sources
10. Medical electronics
11. The future of electronics
12. Project presentations



Reflections

- Via EIT moodle system
 - <http://elearning.eit.lth.se/moodle>
 - Enrollment key **20-konsum-17**
- Same rules apply as in a written test
 - Individual work (**no groups**) about 150-200 words
 - Original answers (**no copy/paste**)



Schedule

- Reflections: 1 week time window
 - Monday 20:00 until following Monday 18:00
- Missed a deadline: Revision period
 - Preliminary 04/12 until 18/12
- Failed a reflection: same as above



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Individual Project / Term Paper

- Optional
- Deeper individual study
- You can propose your own topics
- More information and dates at start of LP2



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Marks

- Mark 3
 - Presence in 9 of the 12 seminars
 - Submission of personal reflections on these
- Mark 4 and 5
 - Individual project to be discussed with Kaan
 - Presentation in our last lecture



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Literature

- Lecture slides will be made available on the moodle prior to each seminar



Staff

Course head:	Kaan Bür kaan.bur@eit.lth.se
Lecturers:	<i>Jens Andersson, Mattias Borg, Pieterella Cijvat, Ove Edfors, Nedelko Grbic, Anders Johansson, Göran Jönsson, Liang Liu, Martin Stridh</i>
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Most Importantly

ENJOY THE COURSE!