

Konsumentelektronik

- ETI125 -

<http://www.eit.lth.se/kurs/eti125>

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

Kaan Bür, 2016

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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

- "The wireless music box has no imaginable commercial value. Who would pay for a message sent to nobody in particular?"

*-- David Sarnoff's associates in response to his urgings for investment in the **radio** in the 1920s.*



Famous Last Words

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

-- *Steve Ballmer, USA Today, April 30, 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)



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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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Topics in LP1

1. Radio
2. Wireless communications, mobile phones
3. Medical electronics
4. Computers
5. Internet
6. GPS and location estimation
7. Digital cameras and moving pictures



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Topics in LP2

8. Electronics' lifecycle
9. Digital audio
10. Batteries, power supplies, light sources
11. The future of electronics
12. Project presentations



Reflections

- Via EIT moodle system
 - <http://elearning.eit.lth.se/moodle>
 - Enrollment key **eit-16-lund**
- Same rules apply as in a written test
 - Individual work (**no groups**) about 150-200 words
 - Original answers (**no copy/paste**)



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Individual Project / Term Paper

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



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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, Leif Sörnmo</i> |
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Most Importantly

ENJOY THE COURSE!