

ELEC-E9900 Networked Partnering and Product Innovation - NEPPI

Introduction

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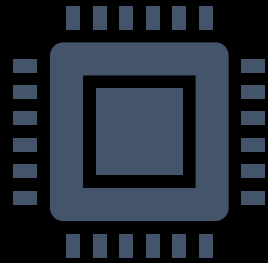
Salu Ylirisku

- Doctor of Arts (industrial design, *concept design*)
- Master of Science (computer science, *interaction design*)
- Over 20 years of user-centered concept design experience
- Since 2017 in Aalto ELEC

Learning Goals

1. To **know Internet of Things (IoT)** from a pragmatic perspective
2. To **design technical concepts** in a user-centred manner
3. To **define key design requirements** of technical applications

Schedule – Two parts



Part I:

Building a complex IoT machine with given design requirements

Event: Show on 12th of November in Väre (13:00-13:30)



Part II:

Defining a design concept with the key design requirements for an IoT application

Event: EXPO on 10th of December in TUAS (15:00-18:00)

The daily schedules

- Mondays 09-12
 - Lectures online
- Wednesdays 09-16
 - Hands-on workshops
- Fridays 09-16
 - Team presentations/dialogue & events

Absences



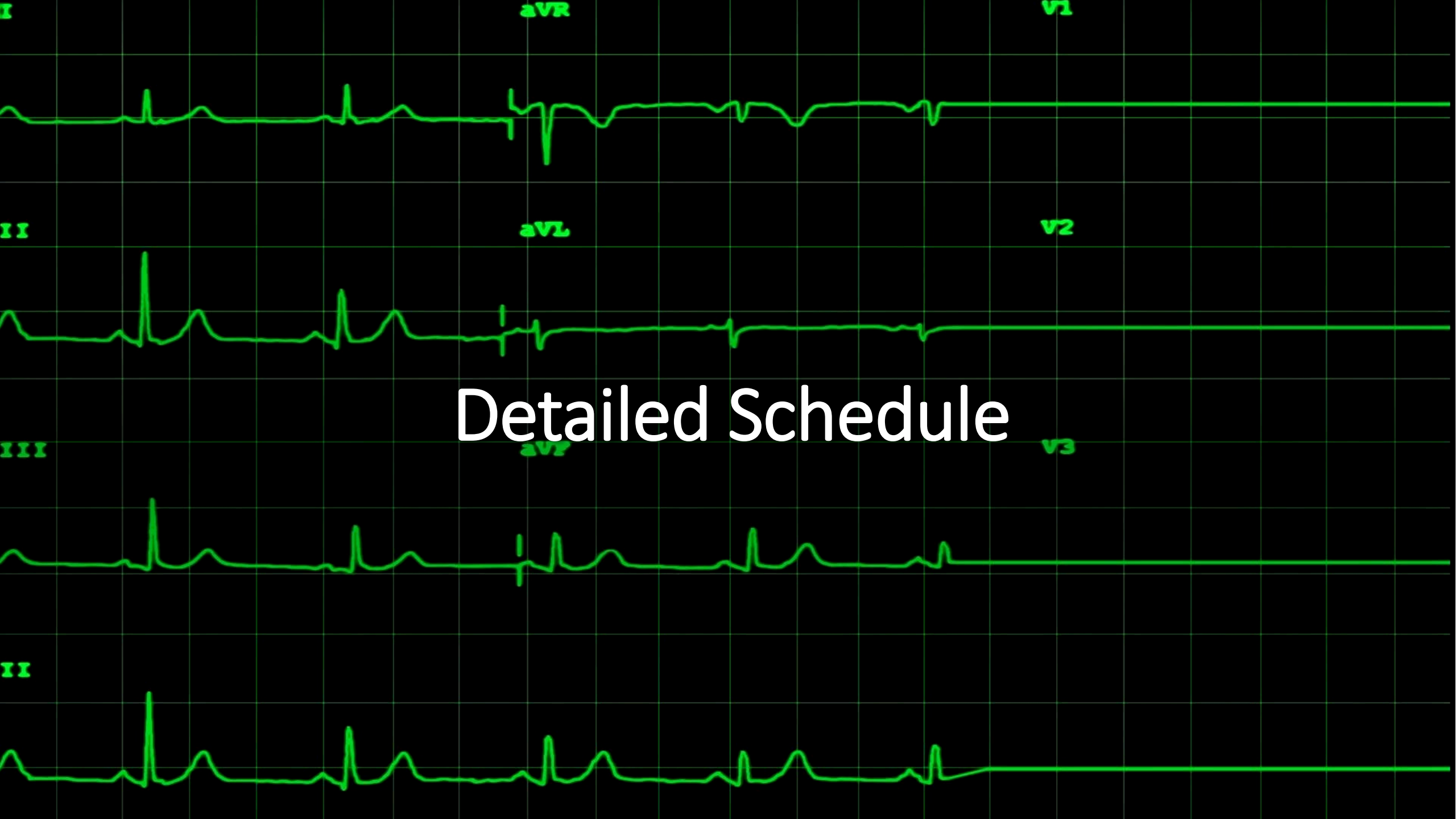
The team is expected to participate in each session throughout the course, i.e., have most of the team actively co-present



If you are absent, please,
1) inform Salu
2) inform your team



Absences are compensated by reading/writing assignments



Deliverables

- IoT Machine (your team's functional module)
- IoT Concept presented in EXPO

- Weekly deliverables
 - W1: IoT Machine – Challenge 1
 - W2: IoT Machine – Challenge 2
 - W3: Design concept
 - W4: Design requirements
 - W6: Final IoT Concept

Evaluation criteria

- IoT machine project (NEPPI hex machine), 20%
 - IoT concept project, 20%
 - The EXPO, 20%
 - Teamwork, 20% (peer grading)
 - Exam, 20%
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- If you are absent, reading assignments will be assigned to you – and you need to catch up with your team

The IoT machine project grading

- Active participation, 50 %
- Working result (meets the design requirements), 40 %
- Wow effect, 10 %

The IoT concept project grading

- Depth of research
 - User study, technology study 20%
- The design approach
 - Iteration, involvement, expression 20%
- Clarity of argumentation of the key requirements
 - Observations, reasoning, decisions 20%
- The quality of the key design requirements
 - Concise, clear, unambiguous 20%
- The presentational quality of the concept
 - Appeal, easy-to-understand, credibility 20%

The EXPO grading

- Active participation, 20%
- Audience engagement, 40%
- Presentational design, 20%
- Technical quality in the display of the design concept, 20%

- **EXPO organising team** needs a member from each project team
 - Makes up half of the project grading for them

Evaluation criteria for the EXPO team

- IoT machine project (NEPPI hex machine), 20%
- IoT concept project, 10%
- The EXPO, 30% (of which 1/3 is peer-graded)
- Teamwork, 20% (peer grading)
- Exam, 20%

So, expo team members go through a double peer evaluation. Your project team and the expo team.

Peer grading

– about active participation & contribution

- You will give grade to each one in your team 0-100%
- You will receive an average score of this
- Default is always 100%, less than 100% means some issues
 - And one gets below 50% then Salu will consider the whole course evaluation for that person

Exam Grading

- Online exam, 17.12 10-12
- 5 questions, 1pt / each

The Exam is about Knowledge

- IoT, Clouds, Apps, Devices, Computing, Connectivity
 - UX, Trends, Prototyping Tools
- what, why, how, and why bother as a design manager

Enrolment and survey

- Are you enrolled to the NEPPI course? If not, please, enrol asap
- And, if you have not yet filled the pre-questionnaire – please, send me (salu.ylirisku@aalto.fi) a request to submit the questionnaire to you again.