

# **ELEC-E9900 Networked Partnering and Product Innovation - NEPPI**

## **Introduction**

Salu Ylirisku

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# Salu Ylirisku

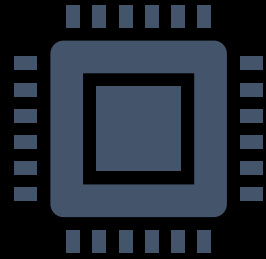
- Doctor of Arts (industrial design, *concept design*)
- Master of Science (computer science, *interaction design*)
- Over 20 years of user-centered concept design experience
- Since 2017 in Aalto ELEC

# Learning Goals

1. To design networked technology application concepts
2. To define key design requirements for technical applications
3. To apply rapid prototyping techniques with different materials

**“Learn to talk to an engineer”**

# Schedule – Two parts



## Part I:

Building a complex IoT machine with given design requirements

Event: Show on the 3<sup>th</sup> of November in DeFa  
(14:00-15:00)



## Part II:

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

Event: NEXPO on the 1st of December in TUAS  
(14:00-16:00)

# The daily schedules

- Mondays 09:15-12 – Lectures at DeFa / Stage
- Wednesdays 09:15-16 – Hands-on teamwork at DeFa / Stage
- Fridays 09:15-16 – Team presentations/dialogue & events at DeFA workshops

# Absences



The team is expected to participate in each hands-on session throughout the course



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



Absences are compensated by reading & writing assignments

# Deliverables

- Weekly deliverables
  - W1: IoT Machine – Challenge 1
  - W2: IoT Machine – Challenge 2
  - W3: Three initial design concepts
  - W4: Design concept
  - W5: Key design requirements
  - W6: Final IoT Concept & NEXPO
  - W7: Final deliverable (Concept document) & exam

# Evaluation criteria

1. HexMachine, 20%
  2. NEXPO, 20%
  3. IoT Product Concept Document, 20%
  4. Team Process Contribution, 20%
  5. Exam, 20%
- If you are absent, reading assignments will be assigned to you – and you need to catch up with your team



# HexMachine

- Active participation, 100%
- Reading & writing for absences (400-600 words / missed day)

# NEXPO

- Product Concept / argumentation for the design
- IoT Service / illustration of the system architecture
- Physical Product / illustration of vision/physical mock-up
- Product UX / demo/video of the “idea alive”
- Stand experience / engagement with your audience

Evaluated collaboratively with NEXPO visitors + You & Me

# IoT Product Concept Document

- Concept description
- Key design requirements /w concrete suggestions
- Key types of partners /w concrete suggestions
- Key sources of revenue /w concrete suggestions
- Estimated main monthly running costs & production costs (per thing)

# Team Process Contribution (for the Part II)

- Peer evaluation
  - 0 % – 100 %
- NEXPO team will get two evaluations
  - Own team
  - NEXPO team

Be kind! Only if there are issues lower your score.

# Exam Grading

1. To **design networked technology application concepts**
2. To **define key design requirements** for technical applications
3. To **apply rapid prototyping techniques** with different materials

**“Learn to talk to an engineer”**

- Oral exam, 6.-8.12 09-16 (á 15 mins), online
  - Scheduler opens today
- This is the test if you have reached the learning goals or not.
  - It will be a dialogue with you and Salu
  - You will have a design concept to explain (Salu gives)
  - You will act as a design manager, Salu more like an engineer
- +1p to your final grade if yes
  - otherwise the course max grade 4/5

# Enrolment and survey

- Are you enrolled to the NEPPI course? If not, please, enrol asap. And if you cannot, please, inform me via e-mail.
  - The capacity of the course is 60 students.
  - Priority to IDBM students
  - Then master's students
- And, if you have not yet filled the pre-questionnaire – please, send me ([salu.ylirisku@aalto.fi](mailto:salu.ylirisku@aalto.fi)) a request to submit the questionnaire to you again.