

NEPPI Week III

6.11.2023

Project
Salu Ylirisku

Learning Goals

1. Learn to conduct **open-ended concept design** in the IoT technology context
2. Learn to use **interactive prototyping** as a business-relevant learning tool in a hands-on manner
3. Learn to **persuade stakeholders** about the value of your design with justified arguments

NEPPI Course - 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)

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

The Project

Project Outcomes

- NEXPO23 on Dec 1st at 14-16 / TUAS Maarintie 8
- Concept Presentation Stand @ NEXPO23
- IoT Product Concept Document

NEXPO & Grading

- 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 costs
 - monthly running costs
 - production costs (per thing)

Deliverables

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

Teams for the Project

NEPPI23 Project Teams

1	Valeria Bilotta	Tilda Sjöblom Anitha	Margeritta El- Khoury (PM)	Anh Nguyen	Huong Nguyen	Eva Astria
2	Nina Balashova	Venkatramani	Elina Ludborza	Svetlana Eggen	Paulina Sawczuk	Leevi Mäkikalli
3	Giang Nguyen	Vishnu Njattu...	Jenni Ikonen	Moa Vesterlund	Mia Nygren (PM)	Kotaro Okumura
4	Kaarlo Mustonen (PM)	Sara Aito	Kosar Moghanian (NE)	Haakon Jyräoja	Octavian Axinte	Francisca Dias Machado
5	Maria Sorsimo	Jeanne Lallemand (PM)	Aada Ylenius	Fredrik Lindstedt	Kathleen Bulteel (NE)	Nina Karppinen
6	Otso Vartola	Huan Nguyen (PM)	Iivo Angerpuro	Mayu Matsuyama	Miisa Metsä	Mats Bjolin
7	Yufei Chen	Maria Simon	Radovan Lamac	Jere Pesonen (PM)	Yagua Adhikari	Bianca Numminen
8	Erno Hänninen	Shayan Khan	Rebekka Holma	Risto Kirjonen	Mariko Kalsi	Sarma Rampalli
9	Hannu Hirstiö	Jaana Kyllönen-Salo	Hui Liang (PM)	Agnes Weckström	Ali Amaan	Tanya Sahdev
10	Rinoj Nakarmi	Elsa Saario (PM)	Ella Ukkonen	Ching-Ying Chu	Po-Sheng Cheng	Thu Nguyen

Team Agreement

- Select project manager
- Select NEXPO team member (except Team 10 is recommended not)
- Tell Salu who will be your team's project manager
 - Project manager is your team's contact point to Salu
- Salu will e-mail the link to your agreement template to your team's project manager

Project Topic

AIoT

IoT project with AI

AIoT – IoT Project with AI

- Two ways to interpret
 1. Use AI in your creative process
 2. Use AI in your product concept

Possible way to get started

- Start with the physical things
 - Sensors & actuators

- Start with a real-life problem
 - Whose problem? Where? When?

The ideas will be relevant for the technology right away.

User-relevance requires experimental design.

The ideas will be relevant for the users right away.

Technical feasibility may become a challenge.

Reading & Reflective Writing

- If you miss a full day
 - Inform Your Team and Salu
 - Read one chapter of the course book and return a 400-600 word reflection essay on the chapter (or other relevant academic text)