

Aalto University Summer course

Design Thinking and Product Development

Aalto University Prof. Kalevi Ekman

*In collaboration with Universitat Politècnica
de Catalunya and Politecnico di Torino*

Program Manager: Marcela Acosta

[Course: MEC-EV10 - Design Thinking and
Product Development, Lectures, 7.8.2023-
25.8.2023 \(aalto.fi\)](#)



TECHNISCHE
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DARMSTADT



Aalto University



UNIVERSIDADE
DE LISBOA



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH



Course work schedule 2023

- Preliminary online work: 7th – 11th Aug 2023
 - Online lectures and independent work
 - **ZOOM LINK:** <https://aalto.zoom.us/j/69979931688>
- In-campus work at Aalto Design Factory: 14th-18th Aug 2023
- Final online lecture 21st Aug 13:00-16:00, and final report to be delivered 25th Aug 2023
- Complete teaching period: 7th-25th Aug 2023

Online program

Course code: MEC – EV10

ZOOM LINK: <https://aalto.zoom.us/j/69979931688>

7 th -11 th August 2022					
	Monday	Tuesday	Wednesday	Thursday	Friday
Morning slot 11-12 CEST (12.00 Helsinki time)			Electromagnetism and radiofrequency		
Afternoon slot 13-15:30 CEST (14.00-16.30 Helsinki time)	Introduction to course	Introduction to Design thinking		Get to know Finland + Milestone checkpoint	

14 th -18 th August 2023 at Aalto Design Factory, K3 building, Puumiehenkuja 5A					
	Monday	Tuesday	Wednesday	Thursday	Friday
Morning slot 9-12	8:30 – <i>Welcome coffee and Karelian pies</i> Product development and design thinking (Kalevi Ekman)	Electronics - Breathe life into your product (Shreyasi Kar) Advanced prototyping technologies (Erwin Laiho)	Pd6 (Sara Figueredo)	Checkpoint / Working on project	Independent work and coaching
<i>Lunch break</i>				<i>Lunch break</i>	
Afternoon slot 13-16	Creative problem-solving workshop	Circular economy workshop (Karelia Dagnaud and Hai Anh) 13:00-15:30)		Extended reality (Sushant Pasi)	Prototype presentations (1.5 hours)
16-17	Sketching	Industry visit	Project Checkpoint	17.00 Networking evening, Babylon, Erottajankatu 2	14:45 – 19:00 Visit to National park

Though the campus has multiple restaurants, cafés, and student cafeterias, many of them are closed during the summer period. **This summer, free lunch for students participating in the Design Thinking and Product Development summer school will be arranged at Food & Co, at A bloc.**

Final online week

Course code: MEC – EV

ZOOM LINK: <https://aalto.zoom.us/j/69979931688>

21st August -25th August 2023				
Monday	Tuesday	Wednesday	Thursday	Friday
13:00-16:00 HELSINKI time Futuricing in Product Development (online lecture)	Project work			Deadline for delivery of assignment at 23:00 CEST

Visit to National park

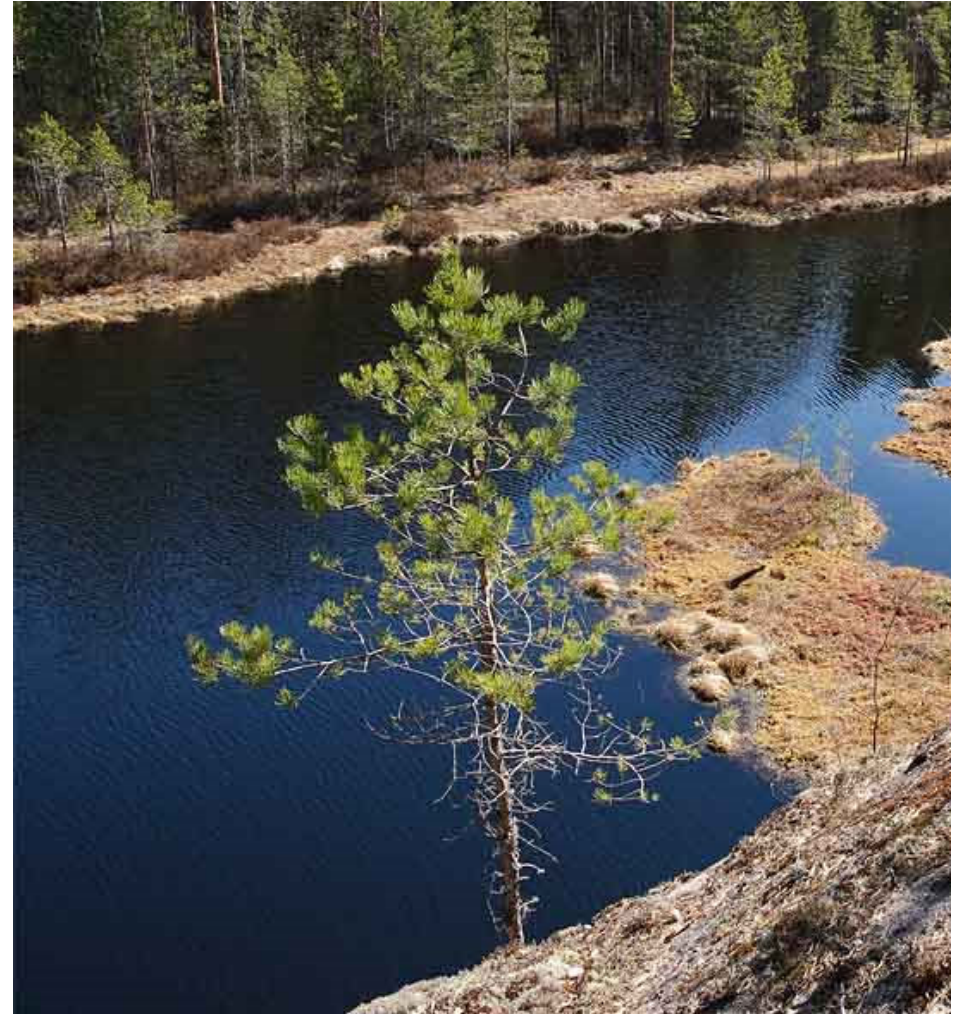
Schedule

- 15:30 Bus leaves to Nuuksio
- 16:00 Nature trailing
- 18:30 Bus returns to Otaniemi

Instructions:

- Bring water bottle
- Bring some snacks/sandwiches
- Bring weather-appropriate clothes
- Bring your own map
- Optional: swimwear and towel*

[More information: Nuuksio National Park - Nationalparks.fi](https://nationalparks.fi)
[Nuuksion kansallispuisto \(metsa.fi\)](https://metsa.fi) map



Information about the course

Disciplines: Engineering and Design	Language: English	Level: 2nd and 3rd year Bachelor's
Where: Aalto University Design Factory, Espoo, Finland	Mode of instruction: blended	Credits: 3 ECTS total 81 hours
15 hours in-person lectures	15 hours in-house work	9 hours specialised lectures
42 hours independent work	Fees: none	



About Aalto Design Factory

Aalto Design Factory (ADF) is an interdisciplinary product design and learning hub uniting students, teachers, researchers, and industry.

ADF aims to build a new kind of passion-based learning culture for Aalto University.



Design Thinking and Product Development is a hands-on bachelor's level where students learn about innovation and how it is used to solve real-life problems. This one-week course will teach you how modern technology is used in user-centered prototyping processes. In multidisciplinary teams, the students are expected to create solutions while learning about electronics, modeling, and additive manufacturing. The course includes theory and applications of design thinking and its application in different contexts.

Who can apply?

- Students enrolled in a bachelor's degree program in 2nd or 3rd year in one of the Unite! partner universities

This course is mostly for engineering and design students. Students in other disciplines will be allowed to participate if there is enough space in the course.

Aalto University – educating game changers

- Aalto University is a public research university in Espoo, Finland. Established in 2010, the school is as a merger of three major universities in the fields of Technology, Economics, and Art and Design.
- At Aalto University, we are committed to identifying and solving grand societal challenges and building an innovative and sustainable future. Besides the innovation and multidisciplinary, Aalto is well known for its vibrant entrepreneurship and startup community. The world's leading startup event Slush was founded by Aalto students.



Experience the Finnish summer

- Helsinki and Espoo offers the perfect combination of nature trails and city life, overflowing with local culinary experiences, world-class design, interesting museums and unique architecture.
- The city and national parks are accessible by public transport, and bike and scooter rental services are also available. Helsinki and Espoo have an
 - extensive and reliable public transportation
 - network consisting of metro, tram lines,
 - commuter trains, buses and archipelago ferries.



Faculty

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Professor Kalevi Ekman holds the chair of Product Development at the Department of Mechanical Engineering at Aalto University. He is also recognised as the founder of the Aalto Design Factory, an experimental platform aiming to support interdisciplinary and international co-creation between parties interested in any aspects of design and development. He has received numerous awards and honours for his educational achievements. His educational focus is on integrated product development and collaborative development of consumer and investment goods, including especially engineering and industrial design viewpoints.



Faculty

Rosó Baltà Salvador holds a Ph.D. and a degree in Industrial and Industrial Design and Product Development from the Universitat Politècnica de Catalunya (UPC). She also has an MSc in Multimedia Applications from the Universitat Oberta de Catalunya (UOC).

She currently teaches at the UPC's Department of Graphic Engineering and Design and works as a UX Designer and Researcher. In her career, she has worked for more than 7 years in the field of UX Design, applying Design Thinking and User-centered design techniques to offer innovative solutions focused on the user in the digital environment. She has developed projects for companies such as Seat (Volkswagen Group), Reebok, or Estrella Damm.



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Faculty

Prof. Patrizia Savi was awarded the Laurea degree in Electronic Engineering from the Politecnico di Torino, Turin, Italy. In 1986 she was a consultant in Alenia (Caselle Torinese, Italy) where she conducted research on the analysis and design of dielectric radomes. From 1987 to 1998 she was a Researcher with the Italian National Research Council (CNR). In 1998 she joined the Electronic Department, Politecnico di Torino, as an Associate Professor. She currently teaches a course on electromagnetic field theory. Her areas of interest include dielectric radomes, frequency-selective surfaces, waveguide discontinuities and microwave filters, high-altitude platform (HAP) propagation channels, Global Navigation Satellite System Reflectometry (GNSS-R) for soil moisture retrieval. Recently, she is focused on the analysis and characterization at microwave frequency of novel materials (polymers and cements with carbon nanotubes, graphene or biochar as fillers) for various applications. She is currently Senior member of IEEE Society and member of SIEM (Società Italiana di Elettromagnetismo).



**Politecnico
di Torino**

Faculty

Sara Figueredo is an optimist chatterbox that sees design as an act to impact society positively. Her design approach tackles complex challenges through systemic strategies, experimenting and innovating to create meaningful solutions that make a real difference. Sara is a doctoral researcher at Aalto Design Factory, advocating the fields of Product Development and Design Thinking. Her research interests revolve around human-centred design, product-service systems and radical innovation. She was a teaching assistant in the Product Development Project Course (PdP) for two academic years from 2021 onwards. She handled course practices by crafting methods to trigger collaborative work and helped student teams bring forth innovative products that impact the users and the real industry. Currently, she is the creative strategist of Design Factory Global Network (DFGN), a network of innovation hubs on a mission to create change in the world of learning and research through passion-based culture and fostering radical innovation.

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Faculty

Sushant Passi is a multidisciplinary designer and faculty at Aalto University with a deep interest in forms, ecosystems and technologies that define our world. He holds a Master of Arts degree in Contemporary Design from Aalto University's School of Art, Design and Architecture with a minor in ChemArts. He is passionate about critical thinking in design, futuring and extended reality. As a designer and researcher, he has worked with a variety of design, technology and innovation firms across Finland and India. His work varies across a range of disciplines in the realm of material innovation, critical design, social impact, product development, applied technologies and XR. He also enjoys spending his free time in nature as an avid hiker and rock climber.



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Application schedule 2023



Students are nominated by their respective sending institutions (contact your international office)



Nominated students can apply from 1st March – 15th May 2023 (nominated students will be sent a link to apply, it is necessary to travel under an Erasmus+ or Erasmus+0 grant)



Final student selection: 20th- 30th May 2023



Aalto signup period will begin on May 15th (through Sisu, 5 spaces available)

Course website: <https://www.aalto.fi/en/aalto-university-summer-school/design-thinking-and-product-development-unite>