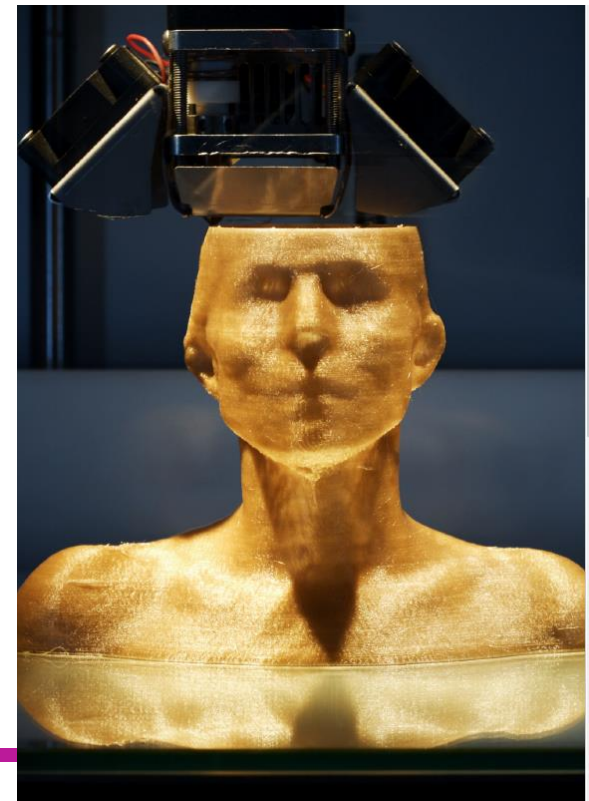


FiTech Summer Boost 2019

Additive Manufacturing and 3D-Printing

FiTECH
**SUMMER
BOOST** 2019!



Permission to have pictures in FiTech material

We will be taking pictures and video. If you want us not to have your pictures in those in the course website or other FiTech marketing, please, let us know by contacting Kirsi Kukko (Kirsi.kukko@aalto.fi)

2nd lecture: Concept creation and Design		
12	Intro	Jouni Partanen
12:10	1st miniseminar: different processes	
12:40	Introducing practical 3D printing	Rayko Toshev, Vaasa
13:10	Break	
13:20	Practical 3D-printing	Meng Wang, Siddharth Jayaprakash, Vuong Vo
14:45	Discussion and plan for next lecture, homework assignment	Jouni Partanen

Teaching Staff



Rayko Toshev •
University lecturer
University of Vaasa



Meng Wang
PhD Student
Aalto University



Siddharth Jayaprakash
PhD Student
Aalto university

Pekka Törnqvist
Laboratory
Manager
Turku AMK

Teaching staff for the course

- Aalto University, ENG, SCI, BIS
- Lappeenranta University of Technology
- Tampere University
- University of Oulu
- University of Vaasa
- University of Lapland

Shark Tank

- EOS Finland
- Nokia, DIMECC
- Benefon, Business Finland

Course Structure

05/2019

The first part of the course presents widely AM and 3D printing technologies and design aspects that are deepened by weekly group assignments. The assignments are presented before next week lecture in a miniseminar.

- 5 x 3 h lectures
- 4 x weekly group assignments
- 4 x miniseminars before the lecture

06-07/2019

In the second part, students will run a project in AM.

- Project: groups of five identify the problem, innovate AM solution, design AM model and print AM prototypes.
- Lecturers direct and support the project development in 3–5 appointments in Turku.
- Groups select one person, five in total, to take part in **Nottingham conference** (www.additiveinternational.com/about/).

08/2019

Third part is for dissemination of project results.

- Groups evaluate group activity
- Groups present their project in a “Shark Tank” 16th of August 2019

Schedule:

WEEK	M	Weekly events
Fri 17th	MAY	1st lecture: Introduction to AM and 3D printing Project assignment
Fri 24th		2nd lecture: Concept creation and Design
wed 29th		3rd lecture: Redesign of components 1st support appointment
Fri 7th	JUNE	4th lecture: Business opportunities and IPR
Fri 14th		5th lecture: 3D printing clinic
Tue 25th		2nd support appointment
Fri 5th	JULY	3rd support appointment
Fri 19th		4th support appointment
Fri 2nd	AUG	5th support appointment
Fri 16		3D printing of final parts "Shark Tank"

<https://www.additiveinternational.com/about/>



9TH - 11TH JULY, 2019
BELFRY HOTEL, NOTTINGHAM UK

The screenshot shows a web browser window with the URL <https://mycourses.aalto.fi/course/view.php?id=23426#section-0>. The page is titled "MEC-EV - FITech Summer Boost: Additive Manufacturing and 3D printing, 17.05.2019-16.08.2019". The main content area features the course title "FITech Summer Boost 2019: Additive manufacturing and 3D printing" and a description: "Summer Boost 2019: **Additive Manufacturing and 3D printing** (10 ECTS) teaches you to develop and apply your expertise in Additive Manufacturing (AM) and 3D printing, transforming how products are designed, produced and new business created. AM enables manufacturing without tooling, shape optimization and on-demand production. AM has means for new flexible designs that can save costs, add product performance or decrease product development lead time. During the summer you'll be engaged in [group assignments](#) and [project work](#): groups of five identify the problem, innovate an AM solution, design AM model and print an AM prototype which you'll get to pitch at the Final Gala "Shark tank" in August. Summer Boost is coordinated by Aalto University and is arranged as a part of the network university FITech (fitech.io)." Below the text are three buttons: "Announcements", "General discussion", and "Schedule and place". A "Materials" link with a right-pointing arrow is also visible. The right sidebar contains "LATEST ANNOUNCEMENTS" (with a note that no announcements have been posted yet) and "UPCOMING EVENTS" (listing a "MyCourses maintenance break at 9-16.30, service out of use" on Monday, 24 June, 09:00 - 16:30). The footer includes the Aalto University logo, user information "Hi! Jouni Partanen (Log out) Home", and social media icons for Facebook, Twitter, and YouTube. The browser's taskbar at the bottom shows the time as 11:29 on 16.5.2019.

Assessment Methods and Criteria:

Weekly activity in lectures: weight 10%, scale 1-5

Grade from home assignments : weight 30%, scale 1-5

Grade from final Project : weight 60%, scale 1-5

Thank you!

Jouni Partanen

Aalto University

Dept of Mechanical Engineering

jouni.partanen@aalto.fi, tel. +358 50 576 9804