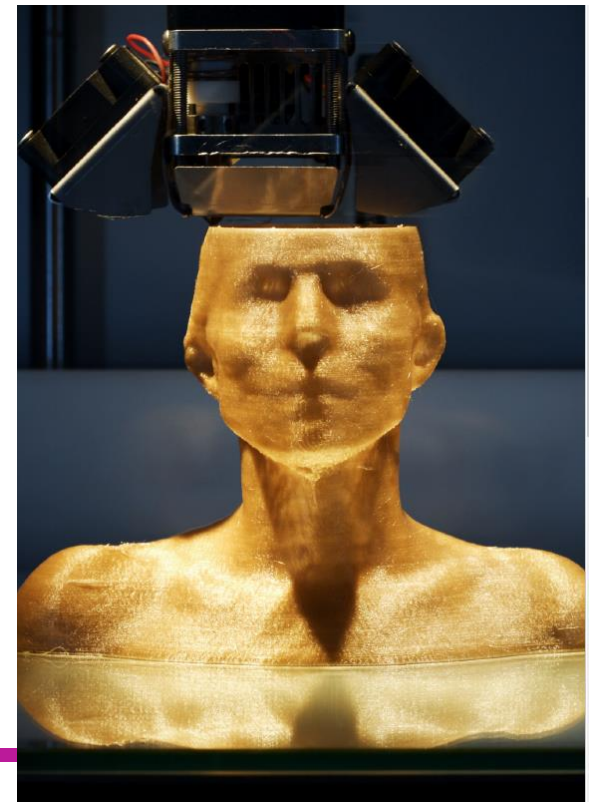


FiTech Summer Boost 2019

Additive Manufacturing and 3D-Printing

FiTECH
**SUMMER
BOOST** 2019!

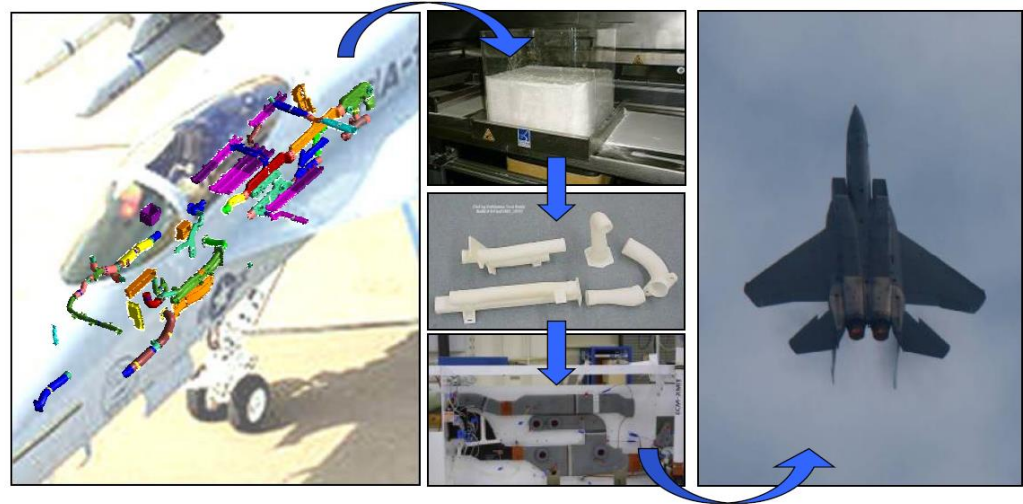


FiTech Summer Boost 2019

Additive Manufacturing and 3D-Printing

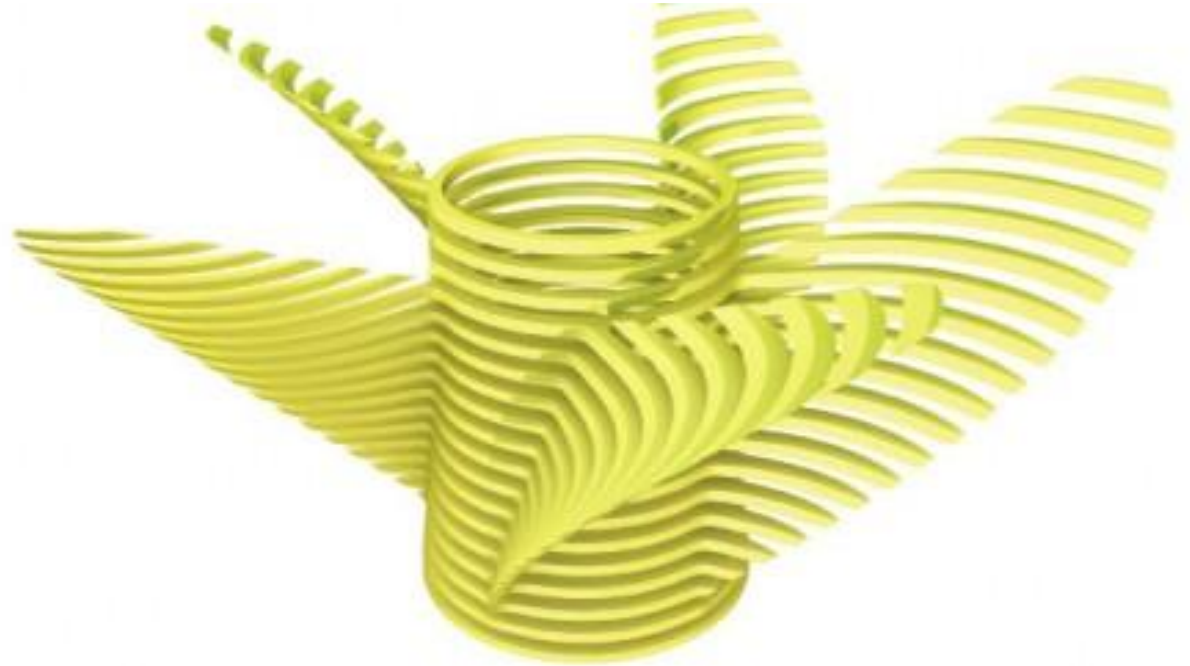
Prof. Jouni Partanen Aalto University

The Boeing company has been utilizing SLS for flight hardware in regular production since 2002, for both military² and commercial³ programs



3D-Printing – objects are made out of slices

- Stacking up 2D images you can make 3D objects
- Conceptually simple process – great for automation



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

Place:

Turun AMK, ICT-City, Joukahaisenkatu 3 A, room C2034

Time:

12-15 (Please arrive at 12 o'clock not 12:15)

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"

Teaching Staff



Kimmo K. Mäkelä • 1st

Postdoctoral researcher (tutkijatohtori) on 3D manufacturing (printing) metals, Univ. of Oulu



Meri Kuikka, Aalto Univ,
School of Business

Teaching staff for the course

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

Shark Tank

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



Dr. Hossein Mokhtarian
Tampere Univ, Mech Eng

The screenshot shows a web browser window with the URL <https://mycourses.aalto.fi/course/view.php?id=23426#section-0>. The page title is "MEC-EV - FITech Summer Boost: Additive Manufacturing and 3D printing, 17.05.2019-16.08.2019". The main content area is titled "FITech Summer Boost 2019: Additive manufacturing and 3D printing". It contains several paragraphs of text describing the course, including details about ECTS credits, the focus on Additive Manufacturing (AM) and 3D printing, and the structure of the course (group assignments and project work). Below the text are three buttons: "Announcements", "General discussion", and "Schedule and place". A "Materials" link is also visible. The right sidebar contains sections for "LATEST ANNOUNCEMENTS" and "UPCOMING EVENTS", with a specific event for "MyCourses maintenance break at 9-16.30, service out of use" on Monday, 24 June, 09:00 - 16:30. The footer of the page includes the Aalto University logo, navigation links for privacy and service descriptions, and a user profile for Jouni Partanen.

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



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

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

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