JOIN US IN THIS ADVENTURE

Universities of the Future is seeking for strong cooperation between players of the quadruple helix. Our team will act as amplifier and connector to the needs, concerns, and expectations of the higher education communities (including students and alumni), business and public bodies.

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P. PORTO (COORDINATOR)

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POLITECHNIKA WARSZAWSKA

COMPANIES

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CONSAIR

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COLLABORATIVE DIGITAL SHIFT TOWARDS A NEW FRAMEWORK FOR INDUSTRY AND EDUCATION

ADDITIVE TECHNOLOGY - 3D MODELLING AND PRINTING

Short-course (2 ECTS)

universitiesofthefuture.eu

Co-funded by the Erasmus+ Programme of the European Union

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ABOUT THE COURSE

This short-course (24h) will focus on "***Additive Technology - 3D Modelling and Printing***" and aims to provide students with the fundaments of knowledge on the Solid Modelling (pieces/assembling) area. This course will provide to trainees the ability to use 3D software to parametric modelling a wide variety of objects and devices for both personal and industrial use. At the end of the course, the participants are expected to:

- Be able to recognize the added value of implementing 3D modeling and printing technologies;
- Be able to recognize the added value of fast design and prototyping of new products/devices;
- Rich understanding of the capabilities of 3D printing and how to think about designing objects;
- Understand the business impact of implemented advanced 3D printing technologies.

SHORT-COURSE DESCRIPTION

The short-course is **destined** for the middle and senior technical staff of SMEs. It will be hosted by **Instituto Politécnico do Porto (P.PORTO)**, at the **Porto Design Factory** (PDF), starting on **20th February 2020** and ending on **26th March 2020,** during six the Thursdays. The sessions last about 4h, from *6 pm to 8 pm* and 8:30 *pm to 10:30 am*. The contents and the description of each theme are presented below:

PART I

3D PRINTING

- Printing Technologies and materials
- Numeric Command and slicing software
- Printing applications
- Printing Hardware

PART II

COMPUTER AIDED DESIGN 3D MODELLING PRINCIPLES

- CAD modelling principles;
- Solid modelling (parts / assemblies);
- Import and Export formats of parts / assemblies;
- CAD Modelling systems and information organization

PART III

APPLICATION CASES

- Execution of all steps from object design until prototype printing

PURPOSE AND MOTIVATION

Continuous training programmes/short-courses aimed at expanding the current offer of HEIs in terms of lifelong learning courses and providing innovative training paths to adult learners, interested in re/upskilling their knowledge and skills in topics related to industry 4.0 (same as listed above), better equipping them to undertake or keep pace with organisational/job-related changes. These courses will include a practical component, comprising hands-on projects.

The purpose of this course is to provide students with the fundaments of knowledge on Solid Modelling (pieces / assembling) area, and discuss the trade-offs between the phases of design and production as well as the use of CAD software and available methodologies. Besides, it intends to demonstrates how to use 3D printing software to create digital designs of devices and objects that can be transformed int physical objects through addictive technologies.

This continuous training course is free, and is part of the short courses programme that the Universities of the Future consortium is preparing to expand the current offer of academic partners in terms of lifelong learning courses. For further information please contact directly Prof Maria Teresa Pereira @ mtp@isep.ipp.pt.

REGISTRATION: to register in this short duration course, please fill the questionnaire available here.