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THE “E3D+VET” ERASMUS+ PROJECT: INTERDISCIPLINARY TEACHING AND LEARNING IN VET CENTRES THROUGH 3D PRINTING

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The “E3D+VET” (Erasmus+ for the immersion in 3D printing of VET centres) is a project supported by the European Commission through the Erasmus+ programme, Key Action 2 - Strategic Partnership for vocational education and training on Development of Innovation. The aim of the project is to develop educational tools for the VET system, which will provide new competences to both teachers and students and will serve as important means of innovation and acquisition of effective knowledge on interdisciplinary STEAM topics. The project started on the first day of October 2017 and it will last 30 months, up to the end of March 2020. The main objectives of the project can be summarised as: (1) train teachers non-computer design (CAD) skilled in VET centres with the aim of using 3D printing across almost of all subjects, (2) improve student transversal abilities through the use of 3D printing, (3) heighten concentration of students with Attention Deficit Disorder, (4) improve 3D printing skills of VET teachers without technologic background as the best way to transfer this innovative knowledge to 21st century students. The activities that the project team has planned to carry out are mostly related to the development of a common methodology to improve the key competences in VET learners, create innovative education practices by means of the model-based 3D printing industrial technology, introduce systematic approaches to, and opportunities for, the initial and continuous professional development of VET teachers, trainers and mentors in both school and work-based settings. The expected results will cover the development of a methodology for defining 3D printing exercises suitable for transversal education, a set of 3D printing exercises for VET-school lessons in different subjects, a networking community tool for teachers using 3D printing for immersion of 3D printing in European education and training. At the conference, all the main pedagogical aspects of the project will be presented, together with the 3D printing exercises involving physics topics and their application as interdisciplinary educational resources for teaching and learning in a wider perspective. A plan for classroom pilot test of the teaching design-based materials will be also presented, together with the evaluation of the efficacy of the global formative process.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

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