

ROTENA in a nutshell

ROTENA will develop a general robotics/3D printing curriculum that integrates the emerging computer science principles and concepts into the course. The focus being on developing entry-level curriculum (particularly for young people) to enable them to develop their skills and competencies to understand the principles of robotics and 3D printing and their widespread application in industry in order for them to access jobs in these new-age industrial sectors.

How we understand ROBOTICS

A robot can be defined as a machine that is designed on the paradigm of "sense-think-act", meaning that it is programmable, can sense its environment, respond and manipulate the environment. For the purposes of this definition, the robot must exist in the physical world and be able to influence it. A robotic system has three key components, namely sensors to

monitor the environment, a programmable controller (processors, AI) to decide on the responses, and actuators or effectors to act on the environment (movement and/or manipulation). In a nutshell, the robot can be seen as a fusion of a machine and a computer.



How we understand 3D Printing

3D printing refers to the process of additively building a three-dimensional physical object from a digital model data (Computer Aided Design or scanned object) file by depositing and forming successive layers of material under computer control. ROTENA Partners see the (introductory) knowledge and (basic) use of 3D printing as a tool that can motivate, enable and empower the user/learner.

Main outcomes

- ROTENA will develop
- a **European Survey on Robotics / 3D Printing Training**,
 - an **introductory training programme**, incorporating a combination of robotics competition activities and curriculum, designed to help teachers to teach programming skills to young people to enable them to gain knowledge and experience of these new technologies, including the use and application of 3D printing (which can be used to build the component parts of robots).



Coming next...

Starting the research phase

The first approach is a mapping and surveying activity including different target groups and stakeholders at the local and national level as well as at the European level.

A survey on the use of robotics and 3D printing at the workplace will be distributed online from January to March 2017. Training providers, SMEs and individuals will be invited to contribute.

Additionally a desk research on existing training programmes and good practices in the field will be implemented. The findings will be published in a research report - available in September 2017 - that builds the basis for the development of the introductory training programme.

To get involved please contact us!



The benefits...

...for training institutions and educators

Having access to the "New Age"

Training Module Framework, which can complement your existing technology courses.

Adding the Training Modules to your own portfolio of training products/services that you provide to individuals in order to continue to support effective and efficient technology training.

...for SMEs

Having access to a growing pool of individuals with an increasing awareness, and increasing skill set, and who have the skills to take your SME forward to more effectively compete to secure new business.

Contact us at:

<http://rotena.eu>

<http://facebook.com/rotenaproject>



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Partners



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