### **CALL FOR PAPERS**

# **Special Session**

# STEAM Technologies for Engineering Learning

"Technologies for deeper learning of Science, Technology, Engineering, Mathematics, combined with Arts (STEAM), improving the innovation and creative capacities of learners and supporting the new role of teacher as a coach of the learner". (Draft Horizon 2020 Work Programme 2016-2017, p.54)

Continuous Technological, economic and social challenges influence higher educational institutions to equip students with the necessary knowledge, skills and competences to work in such challenging context. In addition, a shift from the traditional teacher-centered to a student-centered Learning using innovative technology tools promotes students' active involvement in the design of learning environments.

Improved learning experience for higher education lecturers and students is possible through a meaningful cross border adoption of new learning technologies, deployment of multidisciplinary learning approaches, and use of digital content, tools, services and applications. In addition, the "Expertise" of the industry can play a significant role in the development of the appropriate components and services and leading edge learning technologies that will empower lecturers and learners, and facilitate innovation in education and training.

This special session is intended to attract research papers and case studies showing novel applications related to STEAM Technologies for Engineering Learning. We invite researchers, developers and all those working in this field to submit work under the following topics:

- Science Education
- Engineering Education
- Mathematics Education
- Multidisciplinary learning for Engineering Education
- Interdisciplinary pedagogies in Engineering Education
- Student-centered Learning in Engineering Education
- Inquiry Based Learning, Problem Based Learning and Game Based Learning for STEAM Augmented-, virtual- and mixed-reality learning environments
- On-line laboratories for Engineering Education
- Technical writing for Engineers
- 3D technologies
- Social innovation in education and training
- Wearable technology
- Gaming and Gamification
- · Cloud-based assisted learning environments
- ......

NB: Papers may address one or more of the above listed sub-topics, although authors should not feel limited by them. Unlisted but related sub-topics are also acceptable.

## **Contribution Types**

Proposals for participation in the "STEAM Technologies for Engineering Learning" Special Session can be submitted in the following formats:

- Full Papers These include mainly accomplished research results and have 5 pages.
- Short Papers These are mostly composed of work in progress reports or fresh developments and have 3 pages.

All submissions will be peer-reviewed by at least two reviewers. All accepted papers will be included in the conference proceedings submitted to IEEE *X*plore®, provided at least one author pays the registration fee before January 10<sup>th</sup>, 2016.

For further questions, please contact Dr. <u>Despo Ktoridou</u> or <u>Dr. Thrasyvoulos Tsiatsos</u>, (Subject: EDUCON 2016 Special Session Submission).

## **Important Dates**

23 Nov 2015 Complete Paper Submission
14 Dec 2015 Notification of Acceptance
10 Jan 2016 Author Registration and Payment Deadline
10 Final Paper Due
11 Apr 2016 Conference Opening

### Submission

Please visit <a href="http://www.educon-conference.org/educon2016/index.php">http://www.educon-conference.org/educon2016/index.php</a> and submit your paper in the respective special session titled "STEAM Technologies for Engineering Learning".

# **Program Committee**

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