

### **CALL FOR PAPERS**

# **SPECIAL ISSUE ON**

#### INNOVATIVE TEACHING METHODS IN ENGINEERING

#### **Guest Editor**

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Contributions are invited for a special issue of the International Journal of Engineering Education (IJEE) on Innovative Teaching Methods in Engineering.

Engineering and Innovation are inseparable concepts. This symbiotic relationship is shown in engineers' workplaces, in engineering research & development processes and also should be presented in engineers' education methods.

Teaching engineering methods are always open for evolution in order to include the huge possibilities that technological advances arise. Remote and virtual laboratories, robotic applications, 3D virtual worlds, augmented reality developments, complex data visualizations, mobile applications, etc. are only few example of emerging technological supports for teaching methods based on problem-based learning, cases-based learning, online learning and so on, i.e., all of these approaches are related to a more active student-centered education in Engineering subjects.

On the other hand, other trending topic that is interesting to be discussed is open education issue in Engineering education, especially with regard to the MOOC (Massive Open Online Course) phenomenon. The main question is how to achieve the personalized interaction that Engineering processes require with the massive audience of MOOC approaches.

Therefore, it is important to analyze the real impact of these innovative teaching approaches in Engineering education just in order to be ready to spread and share this successful case studies and lessons learned from previous experiences about:

- Remote laboratories
- Virtual laboratories
- 3D virtual worlds in Engineering education
- Mobile learning in Engineering subjects

- Augmented and virtual reality experiences in Engineering education
- Big data applications related to Engineering education
- Gamification in Engineering education
- · Robots in the classroom
- Massive Open Online Course (MOOC) development and issues regarding Engineering subjects
- Educative software for Engineering education
- Multicultural perspectives of Engineering education
- Interdisciplinary engineering applications for Education

## **Important Deadlines**

Extended abstract (around 2 pages) January 20, 2014

Notification of editors' feedback February 10, 2014

Submission of manuscripts March 1, 2014

Notification of reviewers' feedback April 30, 2014

Submission of final manuscripts May 31, 2014

Submissions are to be sent by e-mail in MSWord and PDF to Prof. Francisco J. García-Peñalvo at fgarcia@usal.es

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