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CALL FOR PAPERS

SPECIAL ISSUE ON

ENGINEERING EDUCATION EVERYWHERE: GOOD PRACTICES FOR EMERGENCY SITUATIONS AND REMOTE REGIONS

Guest Editors
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Higher education in general greatly benefits from face-to-face interactions between students and professors, for making the educational experience more effective, efficient and human. In the particular case of engineering education, the fundamental relevance of hands-on activities, of practical tasks in workshops and laboratories and of employing software resources in collaborative working environments, among others, support the acquisition of important professional skills. Besides, daily interactions between students and professors are essential for empowering students' soft skills, including: teamwork, creativity, oral communication, flexibility, critical thought, to cite some examples.

Successful engineering education relies not only on continuous human interactions, but also on important software and hardware resources, including well-equipped laboratories and design rooms, so as to provide students with the most possible holistic approaches to engineering practice. Furthermore, traditional distance learning methods are not always suited to all engineering disciplines and, consequently, different e-learning, b-learning and m-learning methodologies co-exist, in most cases importantly supported by advanced software and hardware tools, for enabling the implementation and management of virtual classrooms and laboratories.

On the one hand, all these special requirements limit the equitable access to engineering education in remote regions and low-resource settings, as distant engineering education is necessarily technology-dependent. On the other hand, the impact of emergency situations, in which on-site learning may be compromised, affects engineering studies with special virulence. Nowadays, just after the outbreak of the SARS-CoV-2 and in the middle of the related Covid-19 pandemic, most technical universities worldwide are living challenging moments and progressively adapting to distance education and evaluation methodologies, which at the same time, are being rapidly reformulated.

Inspiring educational transformations are continuously arising, in order to make engineering education reach everywhere. In many cases, especially since the beginning of the great confinement, students are experiencing new learning environments, co-creating through

online platforms, studying in new ways and employing a wide set of resources, whose impact on their overall learning cannot be underestimated. However, there are still many unknowns, as regards: the future sustainability, impact and spread of distance learning methods; the possibility of successfully training engineers in emergency situations and in remote and low-resource settings; the adequate acquisition and evaluation of learning outcomes through virtual interactions; among others.

In order to search, generate, gather and provide some evidence for solving the previously mentioned challenges and for supporting the ongoing educational transformations in engineering education, the IJEE Special Issue on "Engineering Education Everywhere: Good Practices for Emergency Situations and Remote Regions" will focus in depth on aspects such as:

- ✓ Case studies of innovative teaching-learning experiences in emergency situations and in low-resource settings.
- ✓ Readiness or lack of to adapt on the part of engineering students and educators.
- ✓ Role of technology in emergency situation.
- ✓ Good practices linked to distributed learning, e-learning, b-learning and m-learning.
- ✓ Promotion of technological equity and of an equitable access to engineering education.
- ✓ Open source software and hardware resources for supporting distance learning.
- ✓ Affordable in-house laboratories for supporting distance learning.
- ✓ Assessment of the impact of forced distance education.
- ✓ Assessment methods of remote delocalized engineering students.

Important Deadlines

Submission of extended abstracts (around two pages):	December 31st, 2020
Notification of reviewers' feedback:	January 31st, 2021
Submission of manuscript:	March 15th, 2021
Notification of reviewers' feedback:	April 15th, 2021
Submission of final manuscript:	May 15th, 2021

Submissions are to be sent by e-mail in MSWord (.doc) to contact guest-editor: Prof. Andrés Díaz Lantada: andres.diaz@upm.es

Manuscripts should be written in English and limited to 12 one-sided, one-column, single-spaced pages. Manuscripts should include keywords, complete affiliation addresses and short biographies of the authors, and citing and listing of references should be in the IJEE style. Figures and illustrations should be suitable for non-color printing.
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