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Preface

This is the first issue of this journal that is fully published in English in accordance with the policies announced in the last issue and presented in the International Conference on Alive Engineering Education, held in Rio de Janeiro in June 2017. From now on, this periodical constitutes an open forum to contributions coming from outside the Brazilian borders in order to enrich the debate on Engineering Education with experiences and practices from all around the world. In addition, our intention is as well to become a showcase that gives more visibility to the pedagogical efforts here presented and spreads ideas to influence good changes in the learning environment.

Internationalization is also the theme of the first paper in this issue, which discusses the impact of the Science without Borders program on the Minas Gerais State University. Besides the cultural and technical subjects, international mobility programs offer the students the opportunity to experience different pedagogical approaches and bring their perceptions to their home institutions. This paper questioned the incoming students about their exchange period and evaluated the corresponding qualitative effect on their formation and their institutions.

The fourth and fifth papers discuss the use of technology to help improving the learning process. The first one describes the role of cooperative learning on educational projects related to the development of skills for programming mobile devices. The authors evaluate the use of challenging projects to motivate the students and to promote the development of soft skills that will be useful to their professional career and meet the labor market expectations. The other paper describes an initiative of the students from CEFET-MG to recover the robotics laboratory by not only fixing the hardware of the available robot arm but also by integrating it to a simulated 3D Model they developed. The fully functional simulation allows even simultaneously controlling both the real robot arm and the model. This experience virtually incremented the amount of seats in the robotics lab and shows the importance of the students in the continuous improvement of our institutions.

Turning the attention to oppose dropout rates, three works add value to the debate. The second paper in this issue brings some suggestions on how to keep the attention of the students during highly technical classes. A set of technological tools was used with pedagogical purpose, like simulations, debates on technical-scientific papers and practical exercises with lab equipment to check the concepts just presented in the lectures. In the third paper in this number, a program to prevent the students from abandoning their courses is introduced together with a diagnosis of the causes of school dropout. Freshmen were integrated to senior students who shared experiences, gave motivational speeches and advices on time-management. During this process, a survey allowed identifying the main problems and assessing the results. It evidenced the increasing interest of freshmen after the introduction of the program.

The last work here presented unveils how a leveling course on basic sciences contributed to reduce the educational gap in conceptual and operational fields from the basic sciences cycle to the engineering formation cycle at the Engineering courses of UFPA, lowering the dropout rates. In order to explain the epistemological learning mechanism behind this process the authors appeal to cognitive learning theory, especially the Meaningful Learning Theory of David Ausubel that establishes a logical-mathematical connection between new knowledge and already acquired concepts.

Evasion repeatedly arises as an important concern among the Engineering schools all over the world. Especially when dealing with the so-called Generation Y or even Millennials new challenges are imposed to the learning process. Understanding their relation with technology and using it to arouse their interest maybe is the start to reach a better results in the learning process.

Rodrigo Pinto Lemos, Editor

Presentation

The Grupo de Educação Aplicada em Engenharia e Engenharia Aplicada em Educação (EnAEn/UFG) of the Universidade Federal de Goiás (UFG) promotes The International Journal on Alive Engineering Education (IJAEEdu). The journal publishes issues every six months and receives papers in continuous flow, so there will be no deadlines for submission of papers. Thus, a particular paper accepted in the field of Engineering Education will be published in an appropriate edition.

The IJAEEdu provides to professionals and academia an electronic space for the dissemination of technical and scientific works related to Engineering Education in Brazil and other countries.

Contributions to The IJAEEdu must address research and extension in the field of Engineering Education. The IJAEEdu is aimed at undergraduate and graduate students, professors, researchers and professionals from different Courses of Engineering and related areas.

Before 2017, the IJAEEdu was known as Revista Eletrônica Engenharia Viva (ISSN: 2358-1271). Under this name, the IJAEEdu was submitted to Qualis that is a Brazilian official system with the purpose of classifying scientific production. It is maintained by the Coordenadoria de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), a Government Agency linked to the Ministério da Educação (MEC). Qualis has the task to classify and evaluate the academic means used on the production of scientific publications of Undergraduate and Graduate Programs. The classification itself occurs by a system of grades, per field of evaluation, and depends on the level of circulation: local, national or international. The classification for a journal is A, B, or C. Thus, Qualis/CAPES indicators were obtained by Revista Eletrônica Engenharia Viva in 2016 is presented in the following Table.

Presentation Table. Qualis/CAPES indicators obtained by Revista Eletrônica Engenharia Viva in 2016.

Evaluation Area	Classification
Education	B4
Engineering I	B5
Engineering IV	B5

In 2017, the journal went through an internationalization process, being recognized as International Journal of Alive Engineering Education (IJAEEdu). Since then, the IJAEEdu has started publishing only papers in English.

The editors of the IJAEEdu are working hardly for international recognition. In fact, our efforts focus on obtaining the Digital Object Identifier (DOI), using the plagiarism detection software (iThenticate) and indexing the journal on an international basis beginning in 2018, among other goals. Therefore, the editors of the journal welcome your confidence in the work being done.

The IJAEEdu counts with the special support of Grupo PET - Engenharias (Conexões de Saberes) (PETEEECS/UFG), Grupo de Educação Aplicada em Engenharia e Engenharia Aplicada em Educação (EnAEn/UFG), Laboratório de Engenharia Multimeios (Engemulti/UFG) and Pró-Reitoria de Pós-Graduação (PRPG/UFG).

Getúlio Antero de Deus Júnior

Editor-in-Chief

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