# Editorial

This issue of the IJEE (vol. 31, issue 2) consists of two sections. The first section is a special issue on Current Trends of E-Leaning in Engineering Education, guest-edited by Prof. Wei-Fan Chen to whom I would like to express my deep appreciation and thanks. The section has 13 contributions by authors from several countries including: Taiwan, USA, Korea, Denmark, Norway, Japan, and Spain.

The second section has eight contributions on a variety of engineering education topics including: Active Learning, Technology Assessment, Wiki System, Team Work, Motivation, Creativity, Entrepreneurship, and Engineering Education Research. Contributing authors are from numerous countries including: USA, Spain, Taiwan, Turkey, Australia, Korea, the Netherlands, and Portugal.

In the first paper of the second section, Shekhar et al. investigate factors that influence student resistance to nontraditional teaching. They also report on specific strategies that educators may employ to enhance student acceptance of active learning. The authors describe the first phase of a research project in which a protocol to assess student responses to active leaning was developed and evaluated. The results from four introductory engineering courses, with enrollment from 70 to 50 students, at two institutions are also presented.

This is followed by the presentation of a model put forward by Blanc et al. for teaching and learning that could help engineering students overcome difficulties they may face in their first year of university. The emphasis is on student-centered learning and formative feedback. The teaching approach described is supported by commonly available technology resources. The authors present results based on several consecutive academic years, each year had about 500 students and 11 instructors. They also present an assessment of active participation and students′ success due to the approach described.

In the third paper, Chou et al. investigate the effect of the composition of groups on learning topics related to chemical engineering using a Wiki system. The investigation involved 116 students. The students were divided into three types of groups: homogeneous, heterogeneous and natural selection groups. Students knowledge was assessed by pre and post-tests of the three groups and the results were compared.

In the paper to follow, Mishra et al. investigate a peer and self-assessment procedure applied to evaluate project work related to database design and development. Students worked in groups with 3 or 4 students per group, with a total of 46 groups. Self-assessments of successful and unsuccessful students were compared with the assessment of their instructors.

Motivation is discussed in the next two papers. Hardré et al. present an approach to model and validate interactions of multiple motivational characteristics. They assessed the motivational profiles of 80 junior and senior students in mechanical engineering design. The authors created an interactive, directional model based on information assembled from the literature, and further tested the relative influence of the related factors to identify the most influential ones on key outcomes using multiple regression. In the second paper, Chung et al. explore the effect of the BOPPPS (Bridge-in, Objective, Pre-assessment, Participatory learning, Post assessment, Summary) application on the creativity of university students. The results of pre and post-tests of 48 students were presented and discussed.

Entrepreneurship is the focus of the next paper. Sohn and Ju used a six sigma game with the purpose of enhancing the entrepreneurship skills of engineering students. The game considers the quality of product design, the development phase, and various other aspects such as: project management, ethics, and green technology. The total number of participants was 62. The impact of the game was assessed through the analysis of evaluation surveys.

In the final paper of the section, Van Hattum-Janssen et al. characterize the evolution of engineering education research as an emerging field of study in Portugal. The authors discuss the contributions of Portuguese scholars and identify the challenges they face.

The guest editorial by Prof. Wei-Fan Chen outlines the rationale for this special issue and the subtopics it covers; it also highlights the papers included.

I hope the readers find this issue of the IJEE to be informative, useful, and a joy to read.

Ahmad Ibrahim