

Editorial

The current issue (30-3) is divided into two sections: The first section is a special issue on Emerging Technologies to Enhance Engineering Education. I am very grateful to Professor Patricia Ordóñez de Pablos for guest-editing it. She selected 19 interesting and informative papers contributed by authors from Lebanon, Mexico, Italy, Saudi Arabia, Spain, P.R. China, USA, Brazil, Lithuania, and Chile.

The second section includes six regular contributions on a variety of topics that include: Content Analysis of Engineering Education Journals, Assessment Methods, Curriculum Design, Lab Work, Psychological Factors and Academic Performance, Nanotechnology, and Electrical Engineering. The authors contributing to this section are from Taiwan, USA, Spain, and Israel. In the first paper, Chou and Chen report on using a Google database to explore worldwide engineering education journals. They focused on journal indexing, journal characteristics, frequently cited articles, and H-index profiles. The authors believe that their findings could help engineering educators and researchers to gain in-depth information about journals in the engineering education area.

Next, De Sande and Godino-Llorente present a study that investigates and compares formative assessment and feedback, self-assessment, and peer-assessment. The participants were second-year Electrical and Electronics Engineering students studying a course on Signals and Systems. A quasi-experiment and a student questionnaire were used as the investigative tools.

In the following paper, Liu et al. present an outcome-based approach to curriculum design for a nanotechnology curriculum. For their purposes, major outcome competencies were identified by analyzing the contents of 600 course syllabi from thirteen nanotechnology-related undergraduate and graduate programs in nine universities in Taiwan.

A laboratory module suitable for laboratory work in an introductory course on control systems is presented in the paper by Toukhtarian and Saab. The authors focus on the modelling of two DC motors with different characteristics, parameter identification, and the impact of different model-order variation on the design.

Gero describes a new course that was designed to introduce students to electrical engineering as well as enhance their systems thinking skills. The course is a team-based design project of a window cleaning robot. The course was assessed using quantitative and qualitative methods.

In the final paper, Yeh et al. present a study that examines the effects of psychological factors on academic performance through imagination. They also compare the various ways these factors affect science and engineering majors. For this purpose, the authors conducted a survey of over 700 science and engineering students at six universities at various regions of Taiwan.

I would like to thank all the authors for their valuable contributions and hope that the readers find this issue of the IJEE informative and a joy to read.

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