#### **Contents**

## **Section I**

# **Special Issue**

# **Current Trends of E-Leaning in Engineering Education**

#### **Guest Editor**

## Wei-Fan Chen—The Pennsylvania State University, USA

Ahmad Ibrahim	451	Editorial
Wei-Fan Chen	452-453	Guest Editorial
Yu-Hung Chiang and Hei Chia Wang	454–460	Effects of the In-flipped Classroom on the Learning Environment of Database Engineering
Gillian M. Nicholls and Sherri L. Restauri	461–475	Instituting and Assessing the Effectiveness of Focused e-learning Modules in Engineering Education
Kyungsun Park	476–485	Instructional Design Models for Blended Learning in Engineering Education
Dorina Gnaur and Johan Clausen	486-494	Teaching Smart with Podcasts
Po-Hsin Huang, Ming-Chuan Chiu, Sheue-Ling Hwang and Jan-Li Wang	495–504	Investigating E-Learning Accessibility for Visually-Impaired Students: An Experimental Study
Reidar Kvadsheim, Hårek Haugerud, Hugo L. Hammer, Alfred Bratterud and Laurence Habib	505–520	Does Clicker Use Improve Exam Scores? A Controlled Randomized Experiment in a Bachelor-Level Course in Software Engineering
Yücel Uğurlu	521–528	User Attention Analysis for E-learning Systems—Towards Intelligent Tutoring
Enosha Hettiarachchi, M. Antonia Huertas and Enric Mor	529-540	E-Assessment System for Skill and Knowledge Assessment in Computer Engineering Education
Sonia Pamplona, Nelson Medinilla and Pamela Flores	541–552	Assessment for Learning: A Case Study of an Online Course in Operating Systems
Ang Liu, Yun Dai and Stephen Lu	553–566	Effectiveness of E-learning 2.0 Tools and Services to Support Learner–Learner Virtual Interactions in a Global Engineering Class
Wen-Hsiung Wu, Wen-Cheng Yan, Wei-Yang Wang, Sung-Lin Li and Hao-Yun Kao	567–573	Comparison of Varied Social Media in Assisting Student Learning
Noemí Merayo, Patricia Prieto, Ramón J. Durán, Juan C. Aguado, Patricia Fernández, Ignacio de Miguel, Rubén M. Lorenzo and Evaristo J. Abril	574–588	M-learning and E-learning Interactive Applications to Enhance the Teaching–Learning Process in Optical Communications Courses
Mengping Tsuei and Ri-Teng Lai	589–596	Development of an Online Engineering Drawing System to Enhance Junior High School Students' Learning in an Engineering Graphics Course

#### **Section II**

# Contributions in: Active Learning, Technology Assessment, Wiki System, Team Work, Motivation, Creativity, Entrepreneurship, Engineering Education Research

Prateek Shekhar, Matt Demonbrun, Maura Borrego, Cynthia Finelli, Michael Prince, Charles Henderson and Cynthia Waters	597–609	Development of an Observation Protocol to Study Undergraduate Engineering Student Resistance to Active Learning
Sara Blanc, José Vicente Benlloch-Dualde and Ginés Benet	610–618	Engaging Students in an Undergraduate Computer Technology Course: An Active-Learning Approach
Pao-Nan Chou, Wei-Fan Chen and Hsin-Ting Lin	619–626	Investigation of Using Wiki to Facilitate Group Composition in Learning Engineering Knowledge: A Quasi-Experimental Study
Deepti Mishra, Sofiya Ostrovska and Tuna Hacaloglu	627–634	Assessing Team Work in Engineering Projects
Patricia L. Hardré, Zahed Siddique and Warren F. Smith	635–647	Modeling the Motivation of Mechanical Engineering Students: Productive Perceptions for Present and Future Success
Chih-Chao Chung, Wei-Yuan Dzan, Ru-Chu Shih and Shi-Jer Lou	648–660	Study on BOPPPS Application for Creativity Learning Effectiveness

So Young Sohn and Yonghan Ju	661–673	Design and Implementation of a Six Sigma Game to Develop Entrepreneurship in Engineering Students
Natascha van Hattum-Janssen, Bill Williams and José Manuel Nunes de Oliveira	674–684	Engineering Education Research in Portugal, an Emerging Field
	685	Guide for Authors