

Contents

Contributions in: Active Learning, Innovation, Creativity, Engineering Identity, Science Fair, E-Learning, Moodle Tools, Virtual Laboratories, Mobile Computing, Technology Acceptance Models, Liberal Arts Graduates, Reading Abilities, Non-Technical Coursework, Course Structure, Accreditation, Academic Performance, Assessment, Conceptual Understanding, System Thinking, Control Systems, Dynamic Systems, Computer Science, Advanced Manufacturing, Statics, Civil Engineering, Electrical Engineering

Ahmad Ibrahim	1	Editorial
Kevin Nguyen, Jenefer Husman, Maura Borrego, Prateek Shekhar, Michael Prince, Matt Demonbrun, Cynthia Finelli, Charles Henderson and Cynthia Waters	2–18	Students' Expectations, Types of Instruction, and Instructor Strategies Predicting Student Response to Active Learning
Daniel M. Ferguson, Kathryn W. Jablokow, Matthew W. Ohland and Şenay Purzer	19–29	The Diverse Personas of Engineering Innovators
Gemma Rodríguez, Chunfang Zhou and Mar Carrió	30–43	Creativity in Biomedical Education: Senior Teaching and Research Staff's Conceptualization and Implications for Pedagogy Development
Brenda M. Capobianco, Eric D. Deemer and Chaihua Lin	44–54	Analyzing Predictors of Children's Formative Engineering Identity Development
Nuria Torras-Melenchon, M. Dolors Grau, Josep Font-Soldevila and Josep Freixas	55–65	Effect of a Science Communication Event on Students' Attitudes Towards Science and Technology
Luis de-Marcos, Antonio García-Cabot and Eva García-López	66–73	Towards the Social Gamification of e-Learning: A Practical Experiment
Jose Miguel Espí, Jaime Castelló and Rafael García-Gil	74–83	Air Flow Levitation System for in Class and Remote Learning of Control Systems
Francisco D. Guillén-Gámez, Javier Bravo-Agapito and Iván García-Magariño	84–90	Students' Perception of the Importance of Facial Authentication Software in Moodle Tools
Alejandra J. Magana, Juan D. Ortega-Alvarez, Ryan Lovan, Daniel Gomez, Johannie Marulanda and Shirley Dyke	91–105	Virtual, Local and Remote Laboratories for Conceptual Understanding of Dynamic Systems
Antonio Da Silva Fariña, Ana Belén García Hernando and Carlos Ramos Nespereira	106–120	Development of Mobile Applications as Part of the Computer Science Engineer Curriculum: Methodological and Assessment Considerations
Wen-Jye Shyr, Chi-Feng Feng, Po-Wen Liu, Tsung-Lin Chiang and Te-Jen Su	121–127	Using the Technology Acceptance Model to Understand Behavioral Intentions in the Use of a Human Computer Interface (HCI) System
Victoria E. Garcia-Vera and Esther Chiner	128–137	Factors Influencing Graduate Students' Preference of Software Tools for Building Engineering Applications
Abe Zeid, Marina Bogard, Chitra Javdeka, Susan Steiger-Escobar, Shamsi Moussavi, Valerie Kapilow, Elizabeth Watson, Claire Duggan and Sagar Kamarthi	138–150	A Hybrid and Modular Curriculum Model in Advanced Manufacturing for Liberal Arts Graduates
A. Sucena, J. Falcão Carneiro, F. Gomes de Almeida and F. L. Viana	151–161	Screening Reading Abilities: A Comparison Between Engineering, Education, Health and Psychology in Portuguese College Students
M. H. Forbes, A. R. Bielefeldt, J. F. Sullivan and R. L. Littlejohn	162–174	Divergent Requirements for Technical and Non-Technical Coursework in Undergraduate Engineering Programs
Martin Jaeger, Desmond Adair, Abdullah Al-Mughrabi and Mona Reda	175–186	Impact of Sequencing Hands-on and Theory in a Concrete Structures Design Course
Jacek Uziak, M. Tunde Oladiran, Magdalena Walczak, Julio Vergara and Mabel Muñoz Ilabaca	187–202	Requirements, Challenges and Consequences in Accreditation of Engineering Programmes
Volkan Cakir and Adrian Gheorghe	203–215	Longitudinal Academic Performance Analysis Using a Two-Step Clustering Methodology
Desmond Adair and Martin Jaeger	216–224	Aggregating Student Peer Assessment During Capstone Projects
Yuyi Bi and Tahira Reid	225–235	Evaluating Students' Understanding of Statics Concepts Using Eye Gaze Data
Oai Ha, Shane Brown and Nicole Pitterson	236–246	An Exploratory Factor Analysis of Statics Concept Inventory Data from Practicing Civil Engineers
Jeffrey P. Walters, Benjamin Greiner, Emily O'Morrow and Bernard Amadei	247–260	Fostering Systems Thinking Within Engineers Without Borders Student Teams Using Group Model Building

Gina C. Adam, Danielle B. Harlow, Susan M. Lord and Christian H. Kautz	261–271	Conceptual Understanding of the P-N Diode among Undergraduate Electrical Engineering Students
Kathleen E. Cook, Yen-Lin Han, Teodora Rutar Shuman and Gregory Mason	272–282	Effects of Integrating Authentic Engineering Problem Centered Learning on Student Problem Solving
	283	Guide for Authors