#### **Contents**

### **Section I**

## **Special Issue**

# **Current Issues in Asia-Pacific Engineering Education**

#### **Guest Editor**

# Pao-Nan Chou - National Pingtung University of Science and Technology, Taiwan

Editorial Ahmad Ibrahim	279
Guest Editorial - Current Issues in Asia-Pacific Engineering Education Pao-Nan Chou	280–281
English Medium Instruction for Electrical Engineering Education: A Focus on Physical Computing Ai-Jou Pan, Chin-Feng Lai, Chun-Ch Hsu and Pao-Nan Chou	282–288
The Effectiveness of using QUIZIZZ Application in Teaching in a Large Engineering Undergraduate Class Atthaphon Ariyarit, Piyapong Suwanno, Rattanaporn Kasemsri, Kestsirin Theerathitichaipa, Manlika Seefong and Fareeda Aryuyo	289–300
Novel Course Design and Assessment of Electrical Engineering Capstone Project Guichen Zhang, Jinghua Zhou, Shuang Xu and Xiaowei Zhang	301–317
Status and Consulting Needs of K-12 Maker Education at Korean National Schools  Hyuksoo Kwon and Dongkuk Lee	318–331
Investigating Graduates' Feedback for the Implementation of Project-Based Learning in Electrical Engineering Undergraduate Program  Jinsong Tao, Umair Bacha, Stephen C McClure, Cunhui Zhang and Xishan Wen	332–341
Introducing Engineering to High School Curriculum: Effects of an Introductory Engineering Program Joosoon Mo and Hyuksoo Kwon	342–352
Institutionalizing Engineering Education Research (EER) in China under the Context of New Engineering Education: Departments, Programs, and Research Agenda Lina Zheng and Siqing Wei	353–368
Outcome Based Approach Applied to a Mechanical Engineering Course to Advance the Teaching-Learning Processes Rayapati Subbarao	369–375
A Bibliometric Analysis of Project-Based Learning Research in and Outside Mainland China Shuang Lin, Zhengtang Tan and Wenping Guo	376–396
Integrating Social Network Analysis with Cooperative Learning in Programming Courses: A Case Study Wen-Chih Chang	397–408
Enhancing Students' Learning Performance by Combining Flipped Learning and Online Formative Assessment Platform Shu-Chen Cheng, Yu-Ping Cheng and Yueh-Min Huang	409–419
An Autoethnography Study of Using Critical Pedagogy to Teach an Introductory Course of Engineering Education to Chinese Graduate Students Majoring in Education  Xinrui Xu	420–428

### **Section II**

Contributions in: Manufacturing, Curriculum Design, K-12 Education, Cross-Disciplinary Teams, Control Systems, Remote Experimentation, Newly-Hired Engineers, Aerospace Engineering, Project-Based Learning, Software Analytics, First-Year Students, Student Success

Use of a Delphi Research Process for Designing, Developing, and Assessing the Importance of Contemporary Advanced Manufacturing Curriculum

429-440

Gisele Ragusa, Satyandra K. Gupta, Qiang Huang, Yong Chen, Azad M. Madni and Sven Koenig, Lilian Leung

Predicting Engineering Integration in K-12 from the Perspective of Pre-Service Teachers	441–452
Pilar Pazos, Francisco Cima, Jennifer Kidd, Kristie Gutierrez, Dorothy Faulkner, Minjung Lee, Krishna Kaipa and Orlando Ayala	
Teaching System Identification by Remote Access to a Networked Control System Laboratory  Tangming Guan, Guo-Ping Liu and Wenshan Hu	453–463
Actions Recent Engineering Graduates Undertake to Integrate into the Workplace – A Case Study from the Aerospace Industry  Benjamin Ahn, Yun Dong and Secil Akinci-Ceylan	464–475
Applying Project-Based Learning to Teach Software Analytics and Best Practices in Data Science Silverio Martínez-Fernández, Cristina Gómez and Valentina Lenarduzzi	476–487
Investigating the Relationship between the Initial English Reading Skills of Newly Enrolled Engineering Undergraduates and their Academic Success – A Case Study  Avshalom Danoch, Roman Michaelan, Revital Danoch and Neta Kela-Madar	488–496
Guide for Authors	497