Section I

Special Issue

The Learner in Engineering Education

Guest Editors

Nestor Arana Arexolaleiba—Mondragon University, Spain Aida Guerra—Aalborg University, Denmark Anette Kolmos—Aalborg University, Denmark Erik de Graaff—Aalborg University, Denmark Rui M. Lima—University of Minho, Portugal

| Ahmad Ibrahim | 939 | Editorial |
|--|-----------|--|
| Nestor Arana-Arexolaleiba, Aida Guerra, Anette Kolmos, Erik de Graaff and Rui Lima | 940–941 | Guest Editorial I |
| Feng-Kuang Chiang | 942-943 | Guest Editorial II |
| Evangelia Triantafyllou, Olga Timcenko and Morten Misfeldt | 944–955 | Mathematics Learning by Programming in a Game Engine: Development of Knowledge and Student Motivation |
| Ole Ravn and Lars Bo Henriksen | 956–962 | Engineering Mathematics in Context—Learning University Mathematics Through Problem Based Learning |
| Liliana Fernández-Samacá, José M. Ramírez Scarpetta, Oscar O. Rodríguez and Edinson Franco Mejía | 963–973 | PBL Model for Single Courses of Control Education |
| Wan Hamiza Wan Muhd Zin, Anthony Williams and William Sher | 974–983 | Introducing PBL in Engineering Education: Challenges Lecturers and Students Confront |
| Javier García-Martín and Jorge E. Pérez-Martínez | 984–999 | Method to Guide the Design of Project Based Learning Activities Based on Educational Theories |
| Carlos Efrén Mora, Beatriz Añorbe-Díaz, Antonio M. González-Marrero, Jorge Martín-Gutiérrez and Brett D. Jones | 1000-1017 | Motivational Factors to Consider when Introducing Problem-Based Learning in Engineering Education Courses |
| Ronald Ulseth and Bart Johnson | 1018-1030 | Self-Directed Learning Development in PBL Engineering Students |
| B. Johnson and R. Ulseth | 1031–1047 | Student Experience for the Development of Professional Competencies in a Project-Based Learning Curriculum |
| José Dinis-Carvalho and Sandra Fernandes | 1048–1059 | Applying Lean Concepts to Teaching and Learning in Higher Education: Findings from a Pilot Study |
| André Seixas De Novais, Messias Borges Silva and Jorge Muniz Jr. | 1060-1069 | Strengths, Limitations and Challenges in the Implementation of Active Learning in an Undergraduate Course of Logistics Technology |
| Jette Egelund Holgaard, Aida Guerra, Anette Kolmos and Lone Stub Petersen | 1070–1085 | Getting a Hold on the Problem in a Problem-Based Learning Environment |
| Jens Myrup Pedersen, José Manuel Gutierrez Lopez, Marite Kirikova, Łukasz Zabłudowski and Jaume Comellas | 1086–1097 | Motivations and Outcomes: A study of an Intensive International Course |

Section II

Special Issue

Selected papers from STEM 2016 Conference, Beijing, China

Guest Editor

Feng-Kuang Chiang—Beijing Normal University, Beijing, China

| Feng-Kuang Chiang, Shizhe Diao, Haotian Ma and Yujun Wang | 1098-1103 | Effects of Hands-on Inquiry-Based Learning Using LEGO® Materials on the Learning of Eighth-Grade Physics Students |
|--|-----------|---|
| Tantan Dong, Yingying Zhang and Feng-Kuang Chiang | 1104–1109 | The Study of Teaching Mode in Building Blocks Based on K'NEX |
| Selline Ooko, Festus K. Beru, Samson M. Nashon, David Anderson and Elizabeth Namazzi | 1110–1116 | Contextualized Science Teaching and Student Performance: The Case of a Kenyan Girls Science Class |
| Yang Dan, Xiaolin Zhang and Luyao Wang | 1117–1123 | The Teaching Case Design of STEM Based on the Environment of Combining Museum and School—Water Resources Project |



Pratim Sengupta and Marie-Claire Shanahan

1124–1134 Boundary Play and Pivots in Public Computation: New Directions in STEM Education

1135 Guide for Authors