

Contents

Special Issue

Engineering Education: Beyond Technical Skills

Part II—Case Studies Linked to the Promotion of Specific Technical Skills

Guest Editors

**Araceli Herández Bayo, María Luisa Martínez Muneta and Andrés Díaz Lantada,
Universidad Politécnica de Madrid, Madrid, Spain**

| | | |
|---|---------|--|
| Araceli Herández Bayo, María Luisa Martínez Muneta and Andrés Díaz Lantada | 183 | Guest Editorial |
| Ignacio De Los Ríos-Carmenado, Fernando Rodríguez López and Cristina Pérez García | 184–198 | Promoting Professional Project Management Skills in Engineering Higher Education: Project-Based Learning (PBL) Strategy |
| J. L. Perez-Benedito, J. Perez Alvarez and M. J. Casati | 199–208 | PBL in the Teaching of Design in Aeronautical Engineering: Application and Evolution of a Consolidated Methodology |
| Jorge G. Prada, Ander Lopez de Sabando, Raul Anton and Miguel Martínez-Iturralde | 209–219 | An Analysis of Soft Skills Development of A Formula-Student (SAE) Team |
| Hsiu-Ping Yueh, Yi-Lin Liu and Weijane Lin | 220–228 | Fostering Interdisciplinary Learning in a Smart Living Technology Course through a PBL Approach |
| Gonzalo Jimenez, Juan Jose Pardo, Emilio Mínguez and Diana Cuervo | 229–237 | Educational Initiatives to Develop Transversal Skills in the Nuclear Engineering Subjects at Universidad Politécnica de Madrid |
| Josep Jordana and Francesc Josep Robert | 238–247 | A Course on Digital Electronics Based on Solving Design-Oriented Exercises by Means of a PBL Strategy |
| Francesc Roure, Magda Pastor, Jordi Bonada and Lourdes Roderó | 248–256 | Interdisciplinary Engineering Project: Experimental and Numerical Optimization of a Sandwich Panel |
| Dorina Gnaur, Kjeld Svidt and Maria Kaae Thygesen | 257–266 | Developing Students' Collaborative Skills in Interdisciplinary Learning Environments |
| Mats Daniels and Åsa Cajander, Tony Clear and Roger McDermott | 267–281 | Collaborative Technologies in Global Engineering: New Competencies and Challenges |
| Pádraig Cantillon-Murphy, John McSweeney, Louise Burgoyne, Colm O'Tuathaigh and Siún O'Flynn | 282–291 | Addressing Biomedical Problems Through Interdisciplinary Learning: A Feasibility Study |
| Luis Romero, Iris A. Domínguez, María Del Mar Espinosa and Manuel Domínguez | 292–301 | Team Work Aptitude Development in the Field of Concurrent Engineering through ICT Tools: Collaborative Engineering |
| Alcínia Z. Sampaio | 302–315 | The Introduction of the BIM Concept in Civil Engineering Curriculum |
| Carlos Carbonell Carrera, Norena Martín-Dorta, José Luis Saorín Pérez and Jorge de la Torre Cantero | 316–322 | Specific Professional Skills Development for Engineering Studies: Spatial Orientation |
| Jorge Martín Gutiérrez, Melchor García Domínguez and Cristina Roca González | 323–334 | Using 3D Virtual Technologies to Train Spatial Skills in Engineering |
| Thomas Litzinger, Sarah Zappe, Samuel Hunter and Irene Mena | 335–342 | Increasing Integration of the Creative Process across Engineering Curricula |
| María Jesús García-García, Concepción González-García, Luis J. Fernández, José-Luis Casado-Sánchez and Luisa Martínez Muneta | 343–353 | Assessing Creativity in Engineering Students: A Comparative Between Degrees and Students in First and Last Year |
| M. Luisa Martínez-Muneta, Mario Lopez de Avila, Gregorio Romero and Jesus Felez | 354–360 | Searching for the Most Creative Engineer |
| A. Uruburu Colsa, I. Ortiz-Marcos, J. R. Cobo-Benita and A. Moreno-Romero | 361–367 | Improving Engineering Students' Communication Competence: Designing Innovative Learning Strategies |
| Miroslav Bjekić, Dragana Bjekić and Lidija Zlatić | 368–376 | Communication Competence of Practicing Engineers and Engineering Students: Education and Evaluation |
| Milevica Bojović, Lidija Palurović and Lena Tica | 377–383 | Communication Skills in Engineering Professions: Communicative Language Ability in Foreign Languages |
| Sarah L. Gassman, Michelle A. Maher and Briana E. Timmerman | 384–394 | Pedagogical Strategies to Promote the Development of Graduate Engineering Students as Disciplinary Writers |
| Heather Camp and Jeffrey R. Pribyl | 395–404 | Learning to Write in Chemistry for Engineers: Sites and Strategies for Fostering Engineers' Communication Skills |

| | | |
|---|---------|---|
| Daniele Carolina Lopes, Mateus Cecilio Gerolamo, Zilda Aparecida Pereira Del Prette, Marcel Andreotti Musetti and Almir Del Prette | 405-413 | Social Skills: A Key Factor for Engineering Students to Develop Interpersonal Skills |
| Nathan Canney and Angela Bielefeldt | 414-424 | A Framework for the Development of Social Responsibility in Engineers |
| Diana Bairaktarova, Monica F. Cox and Mohit Srivastava | 425-433 | A Project-Based Approach Professional Skills Training in an Undergraduate Engineering Curriculum |
| Jonathan D. Stolk and Robert Martello | 434-449 | Can Disciplinary Integration Promote Students' Lifelong Learning Attitudes and Skills in Project-Based Engineering Courses? |
| | 450 | Guide for Authors |