

**Section I**  
**Special Issue**  
**Current Development in Interactive Pedagogies in Teaching and Learning Energy-Related Engineering Subjects**

**Guest Editors**  
**Diana Bairaktarova and Thomas Diller**  
**Virginia Polytechnic Institute and State University, USA**

<b>Editorial</b>	1
<i>Ahmad Ibrahim</i>	
<b>Guest Editorial</b>	2–4
<b>Current Developments in Interactive Pedagogies in Teaching and Learning of Energy-related Engineering Subjects</b>	
<i>Diana Bairaktarova and Thomas Diller</i>	
<b>Evaluation of the Effectiveness of Individual Hands-on Workshops in Heat Transfer Classes to Specific Student Learning Outcomes</b>	5–15
<i>Thomas Diller and Diana Bairaktarova</i>	
<b>Effects of Game-Based Learning on Engagement and Academic Performance for Undergraduate Science and Engineering Students</b>	16–22
<i>Saqib R. Jivani, Mouna Chetehouna, Sanaa Hafeez and Mohamed H. Adjali</i>	
<b>GeoGebra Tool: Development of Applications for Electrical Machines and Drives Teaching Support</b>	23–37
<i>Miroslav Bjekić, Marko Rosić and Marko Šućurović</i>	
<b>The Efficacy of GeoGebra Tool in Enhancing Electrical Machines and Drives Instruction</b>	38–42
<i>Marko Rosić, Miroslav Bjekić and Dragana Bjekić</i>	
<b>A New Practical Approach for a Basic Electrical Instrumentation Lab to Enhance Student Engagement and Performance</b>	43–53
<i>Ainhoa Rezola, Andoni Beriain, Héctor Solar and Noemí Pérez</i>	
<b>Exploring the Impact of Virtual Office Hours on Engineering Students' Learning: A Case Study in Higher Education</b>	54–68
<i>Maeve Bakic, Krishna Pakala and Devshikha Bose</i>	
<b>Inverted Pendulum Projects in Controls Education: A Five-Year Journey</b>	69–74
<i>Ryan W. Krauss</i>	
<b>Analysis on the appropriate Pedagogy approaches applicable for 'Engineering Thermodynamics' Course</b>	75–82
<i>Rayapati Subbarao</i>	

**Section II**  
**Contributions in: K-12 Engineering, Learning Outcomes, Student Engagement, Gamification, Distance Learning, Flipped Classroom, STEM, Virtual Office Hours, PBL, Pedagogy Approaches, Motivation, Technical Reports, Interpersonal Skills, Creativity, Attendance and Performance, Curriculum Demands, Retention, Teamwork, Simulations, Thermodynamics, Power Engineering, Instrumentations, Chemical Engineering, Civil Engineering, Industrial Engineering**

<b>Effects of High School Engineering Course Participation on Persistence Attitudes and Engineering Self-Efficacy</b>	83–96
<i>Kristin Sandberg, Jean Mohammadi-Aragh, Jenna Johnson, Shane Brauer and Deborah Eakin</i>	
<b>Engineering Students' Varying Motivation and Self-concept in Mathematics</b>	97–107
<i>Evgeniya Burtseva, Marcus Sundhäll, Timo Tossavainen and Peter Wall</i>	
<b>Validation of a Senior-Level Chemical Engineering Laboratory Course Technical Report Rubric that Aligns with Industry Expectations</b>	108–115
<i>Stephanie G. Wettstein, Douglas J. Hacker, Jennifer R. Brown</i>	



<b>Perceptions of the Importance of Interpersonal Skills by Engineers, Students, and Faculty</b>	116–125
<i>Morgan Green, Alta Knizley and Lesley Strawderman</i>	
<b>Teaching Creativity in Engineering Schools: A review of the Literature</b>	126–143
<i>Yasemin Tekmen-Araci</i>	
<b>Group Quizzing to Improve Attendance and Performance in a Civil Engineering Classroom – A Case Study</b>	144–153
<i>Congrui Jin and Tareq Daher</i>	
<b>Learning to Cope in Undergraduate Chemical Engineering: A Comparative Study of Second Year Students Across Three Countries</b>	154–165
<i>Nicole P. Pitterson, Jan McArthur, Ashish Agrawal, Alaa Abdalla and Jennifer M. Case</i>	
<b>Coming and Going: What Draws Students to Industrial Engineering and What Pushes Them Away</b>	166–178
<i>Sara C. Vick, Brian K. Smith and Lesley Strawderman</i>	
<b>The Reflective Modeling Practitioner: Promoting Self-regulation and Self-confidence in Computational Modeling and Simulation Practices</b>	179–195
<i>Joreen Arigye, Joseph A. Lyon, Alejandra J. Magana and Elsje Pienaar</i>	
<b>“Not a Therapist”: Why Engineering Faculty and Staff Do/n’t Engage in Supporting Student Mental Health and Wellbeing</b>	196–213
<i>Jeanne Sanders, Eileen Johnson, Joseph Mirabelli, Andrea Kunze, Sara Vohra, and Karin Jensen</i>	
<b>Guide for Authors</b>	214