

11th Research in Engineering Education Symposium (REES 2025), Regional Conference in Engineering Education (RCEE 2025) & Research in Higher Education (RHEd 2025)

Transforming Engineering Education:
Breaking Boundaries of Research and
Practice

Johor, Malaysia
29 September - 3 October 2025

Volume 1 of 2

ISBN: 979-8-3313-3805-3
eISBN: 979-8-3313-4019-3
DOI: <https://doi.org/10.52202/086293>

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2025) by Research in Engineering Education Network
All rights reserved.

Printed by with permission Curran Associates, Inc. (2026)

For permission requests, please contact Research in Engineering Education Network
at the address below.

Research in Engineering Education Network
c/o Mitra Mohd Addi
Centre for Engineering Education
C09, Level 2
Universiti Teknologi Malaysia

www.reen.co

mitra@utm.my

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

VOLUME 1

1A-REIMAGINING ENGINEERING CURRICULUM AND ASSESSMENT PRACTICES

Final Exam Score Characteristic Following a Sudden Shift in Testing Format from Open-Book to Closed-Book.....	1
<i>Norhuda Abdul Manaf, Tomoya Tsuji, Hafizah Farhah Saipan Saipol, Shahirah Abu Bakar, Aizul Nahar Harun, Peng Yen Liew</i>	
Fairness in Learning Evaluation of Database Management Course	9
<i>Shinta Yulia Puspitasari, Prati Hutari Gani, Villy Satria Praditha</i>	
Designing a Unified OBE Assessment System: A Bottom-Up Approach for Sustainable Learning Outcome Measurement.....	19
<i>Slamet Raharjo, Ikhwana Elfitri, Muhammad Ilhamdi Rusydi, Rizki Aziz, Devi Chandra, Yosritzal Yosritzal, Feri Afrinaldi, Is Prima Nanda, Norman Gusrizal</i>	
Opportunities for Integrating Service Learning into Engineering Capstone Projects.....	29
<i>Ade Aisyah Arifna Putri, Era Febriana Aqidawati, Ilham Priadythama</i>	
Engineering Education in the Age of Industry 5.0: Mapping the Inner Development Goals to the Graduate Attributes and Professional Competencies Framework.....	37
<i>Inês Direito, Ifeoma Chukwunonso Onyemelukwe, Ana Luísa Ramos, José António Vasconcelos Ferreira</i>	

1B-REGIONAL & GLOBAL PERSPECTIVES ON ENGINEERING EDUCATION RESEARCH

Evaluating the Effectiveness of Intelligent Teaching Models: A Comparative Study Between Traditional and AI-Enhanced Instruction in Undergraduate Vocational Universities in China	46
<i>Liyao Xia, Ibnatul Jalilah Yusof</i>	
The Impact of Visiting Ininewak Communities in Northern Manitoba on Engineering Students and Faculty	55
<i>Jillian Seniuk Cicek, Dennis Anderson, Kari Zacharias, Paula Rodrigues Affonso Alves, Renato Bezerra Rodrigues, Hannah Mooney, Julien Dorlencourt, Peter Kulchyski</i>	
A Strategic Pedagogical Approach Through Cross-Border Collaboration in Online Guest Lecture on the Atterberg Limit Test.....	66
<i>Galuh Chrismaningwang, Maxvallecia Frikandy, Lydia Novitriana Nur Hidayati, Achmad Basuki</i>	
Impact of Supervisor Consistency on Capstone Project Completion: Insights from an Electrical Engineering Program Course in Indonesia	76
<i>Warindi Warindi, Agus Ramelan, Mufti R. A. Putra, Joko S. Saputro</i>	

1C- BRIDGING RESEARCH AND CLASSROOM PRACTICE IN ENGINEERING EDUCATION

Trends of Team Management Tool Usage and Teamwork Behavioral Effectiveness Ratings in Community Colleges	87
<i>Siqing Wei, David Reeping, Li Tan, Matthew W. Ohland</i>	
From Effective Teaching Practice to Engineering Education Research: Where Are the Gaps, and How Can the Gaps Be Bridged?	98
<i>Qin Liu, Greg Evans</i>	
Heart and Mind of Engineering Educator: The Emotional Dimensions of Facilitating Student-Centered Learning	111
<i>Shih Hui Lee, Khairiyah Mohd-Yusof</i>	
Applying Project-Based Learning to Course System Analysis and Design: Bridging Theory and Practice	123
<i>Shubha Puthran</i>	
The Impact of Self and Peer Rating Assessments on Conventional Techniques Through Cooperative Learning in Project-Based Learning Strategies	133
<i>Umar Isah Abubakar</i>	

2A-TECHNOLOGY-DRIVEN INNOVATIONS IN ENGINEERING EDUCATION

Generative AI in Engineering Design: Implications for Teaching and Learning from Seasoned Instructors	142
<i>Justin Heiss, Robert Loweth, Udeme Idem</i>	
Sentiment Analysis of Online Course Reviews Using Attention-Based Bi-LSTM Approach.....	154
<i>Shreelakshmi Joshi, Sakshata Katageri, Vijayalakshmi Lamani, Kaushik Mallibhat</i>	
Evaluation of the Influence of Learning Management System (LMS) Actions on the Performance of Masters and Bachelors Students (Case Study of Professional Ethics, Information Technology Regulation and Intellectual Property and Cyber Law and Ethics Courses).....	165
<i>Muharman Lubis, Rafian Ramadhani</i>	
Development of Website-Based Information System to Support the Implementation of Outcome Based Education at the Faculty of Engineering UNS.....	174
<i>Sutrisno W. Ibrahim, Muhammad Syahputra, Faisal Rahutomo, Muhammad A. Naufal</i>	
Deployment of Computer-Aided Learning Programs for Effective Learning in Crucial Chemical Engineering Courses for Bachelor of Engineering in Chemical Engineering Degree Programme	184
<i>Umar Isah Abubakar</i>	
Automating Thematic Analysis of Student Assessments: A Proof-Of-Concept Study of Growth Mindset Reflections.....	199
<i>Peter Cebon, Bonny Ross, Julia Hill, Metaxia Kladis</i>	

2B-INDUSTRY-ACADEMIA PARTNERSHIPS FOR FUTURE-READY ENGINEERS INTERDISCIPLINARY APPROACHES TO ENGINEERING EDUCATION

Innovative Pedagogy for Industry Alignment: A Case Study of Project-Based Learning and Simulation in Higher Education	213
<i>Sharizal Ahmad Sobri</i>	
An Interdisciplinary Curriculum Framework on Aged Battery Reuse for Power Grid Applications in Engineering Education	225
<i>Wen Gao, Ai Chin Thoo, He Xiang Wang, Cong Qi Dai</i>	
Sustainable Engineering Solutions for the Organic Food Trend.....	235
<i>Hong Yi Li, Ai Chin Thoo, Hon Tat Huam, Ying Tuan Lo</i>	
Alignment of Architecture Education in Universitas Sebelas Maret with the Needs of the Construction Industry: A Case Study of PT Hutama Karya (Persero)	242
<i>Pratiwi Anjar Sari, Fauzan Ali Ikhsan, Amy Rachmadhani Widyastuti, Gregorius Aji Sentosa</i>	
Reimagining Engineering Teamwork Education: A Literature-Based Analysis of Academic and Industry Alignment.....	250
<i>Rantheekeng Jones Moloisane, Nicky Wolmarans</i>	

1A-BRIDGING RESEARCH AND CLASSROOM PRACTICE IN ENGINEERING EDUCATION

Overcoming Challenges in Robotics Education: Examining Teacher Facilitators and Barriers.....	262
<i>Medha Dalal, Jialing Wu, Assad Iqbal</i>	
Synergy in Mathematical and Computational Thinking for Hydrodynamic Flood Modelling.....	273
<i>Norma Alias, Abdullah Aysh Qasem Dahawi, Yudariah Mohammad Yusof, Muhammad Iqbal Haikal Samia'an</i>	
Online Delivery and Assessment of Engineering Courses: The Neglected Student Learning Time.....	285
<i>Peck Loo Kiew, Chia Pao Liew, Jane Shuet Ie Lim, Man Kee Lam, Siew Hoong Shuit, Kai Yin Tang</i>	
A Comparative Study of Academic Performance in Map Projection Course	298
<i>Othman Zainon</i>	
Getting to the Nuts and Bolts: Reclaiming Hands-On Learning in First-Year Mechanical Engineering	308
<i>Helen M. Inglis, Lelanie Smith, P. Schalk Els</i>	
Effects of Scaffolding Project-Based Learning on Metacognitive Skill Development: A Quantitative Study in Undergraduate Engineering Education.....	319
<i>Jinye Jia, Nurzal Effiyana Ghazali, Eileen L.M. Su, Nabilah Zaini, Mitra Mohd Addi, Mingyu Wu</i>	

1B-INDUSTRY - ACADEMIA PARTNERSHIP FOR FUTURE-READY ENGINEERS

The Engineering Workforce Demands in Malaysia: Insights from the Industrial Perspective	330
<i>Khairiyah Mohd Yusof, Fatin Aliah Phang, Mohamad Syahrul Nizam Ibrahim, Zaki Yamani Zakaria</i>	

On-The-Job Training and Skill Competence: An Industry-Based Evaluation of Vocational Trainees	341
<i>Nurul Aini Mohd Ahyan, Norhayati Sapari, Nur Hazirah Noh@Seth, Hanifah Jambari, Mohamad Rasidi Pairan</i>	
The Adaptation of Industry-Grade Electronic Design Automation in VLSI Design Curriculum Among Malaysia's Universities.....	352
<i>Suhaila Isaak, Izam Kamisian, M.A. Nuruddin Hamzah, Ismahani Ismail, Norlina Paraman, Mun'im A. Zabidi, Nabihah Ahmad</i>	
Balancing Academic Standards and Industry Demands: Refining Real-World Problems for an Engineering Capstone Design Course	362
<i>Syed Ahmad Helmi Syed Hassan, Aaron Ramsey, Craig Allen Zehrung, Prathyush Dinesh Kothari, Maxell Pasia Lumbea, Khairiyah Mohd Yusof</i>	
Combining Simulation and Coding to Teach the Next Generation of Engineers and Researchers	372
<i>Gautham Varma, Kaitlin Tyler</i>	
A Micro-Credential Pathway to Safer and More Reliable Engineering for Industry 4.0.....	377
<i>Nor Fadzilah Abdullah, Asma Abu-Samah, Sahar Heidary, Ili Hazwani Zulkifli, Rozita Ibrahim, Nasrudin Subhi, Rosdiadee Nordin, Mehran Behjati, Marco Zennaro</i>	

1C-BRIDGING RESEARCH AND CLASSROOM PRACTICE IN ENGINEERING EDUCATION 2

Bridging Technology and Pedagogy: The Future of Engineering Education	386
<i>Kalaivani Chellappan, Noor Fazila Kamal</i>	
Pedagogical Innovations to Reduce Cognitive Load of First-Year Engineering Students in Basic Electrical Engineering Course	396
<i>Khamruddin Syed, Vijayalakshmi M, Rohit Kandakatla, Preethi Baligar</i>	
Integration of Problem-Based Learning (PBL) in Machine Learning Course to Enhance the Problem-Solving Skills of Undergraduate Engineering Students in India.....	406
<i>Uma Shankar Kommanaboina, Vijayalakshmi M, Rohit Kandakatla, Preethi Baligar</i>	
Bridging Theory and Practice in STEM: Evaluating the Microwave Communication Module for Secondary School Teachers	417
<i>Norbahiah Misran, Norsuzlin Mohd Sahar, Mohd Fais Mansor, Mohd Hafiz Baharuddin, Mohammad Tariqul Islam, Mandeep Singh Jit Singh, Marlissa Omar, Mohd Huzairi Johari, Tengku Nor Shuhada Tengku Zawawi, Mohd Rokhaizat Jamaluddin</i>	
Bridging the Gap Between Theory and Practice: The Role of Expert Structural Engineers in Enhancing Decision-Making Among Graduate Engineers on Construction Sites.....	424
<i>Zuraidah Abu Bakar, Nurzal Effiyana Ghazali</i>	
Consumable Material Costs and Their Impact on Skill Development in Welding Engineering Education: A Case Study	433
<i>Muhamad Latiff Enet Ghani, Hairol Jaffar, Anies Faziehan Zakaria</i>	

1D- SUSTAINABILITY AND ETHICS IN ENGINEERING EDUCATION

Bridging the Sustainability Gap: A Investigation of Engineering Students' Perceptions	443
<i>Faris Tarlochan</i>	

Understanding the Ethical Implications of Using GenAI in Engineering Education: A Pilot Study with Engineering Education Academics	455
<i>Zachery Quince, Kathy Petkoff, Sasha Nikolic, Scott Daniel, Ruby N. Michael</i>	
Educating Circular Economy and Its Integration with Manufacturing Industry for Sustainable Development: A Systematic Literature Review	463
<i>Van Lee, Ai Chin Thoo, Noraindah Abdullah Fahim, Hon Tat Huam</i>	
Sustainable Development: Combination with SCM for Engineering Education	472
<i>Chenxi Wu, Ai Chin Thoo, Hon Tat Huam, Alhamzah Fadhil Abbas</i>	

2A-TECHNOLOGY-DRIVEN INNOVATIONS IN ENGINEERING EDUCATION 1

Hands-On Using EDA Tool-Assisted Learning for Digital Electronics Among Freshmen	480
<i>Ismahani Ismail, Norlina Paraman</i>	
A New Paradigm in Virtual Learning Using the Book-End Division Approach Via Active Lightboard Virtual Education (ALIVE) ©	490
<i>Nurul Wahidah Arshad, Rohana Abdul Karim, Suliana Ab. Ghani, Yasmin Abdul Wahab, Norazila Jaalam, Nor Farizan Zakaria</i>	

VOLUME 2

Artificial Intelligence and Critical Thinking: A Systematic Review of Its Potential in Engineering Education	495
<i>Shafika Arrisha Shamsul Amir, Nurzal Effiyana Ghazali, Shafira Attasha Shamsul Amir</i>	
Generative AI is the Enabling Technology for Abundant Feedback	505
<i>Anna Lidfors Lindqvist, Euan Lindsay, Andrew Rodda, May Lim, Zach Quince</i>	
Transforming Engineering Roles and Education Through Industry 5.0 Enabling Technologies: A Narrative Review	515
<i>Alexa Ray Fernando, Nurzal Effiyana Ghazali, Fatin Aliah Phang, Nor Farahwahidah Abd. Rahman</i>	

2B-TECHNOLOGY-DRIVEN INNOVATIONS IN ENGINEERING EDUCATION 2

Exploring the Efficacy of GenAI Tools in Capturing Diversity in Engineering	526
<i>Zachery Quince, Anna Lidfors Lindqvist, Winn Chow, Kathy Petkoff, Sasha Nikolic</i>	
Evaluating GenAI's Ability to Map a Professional Engineering Skills Framework to Self-Agency and Feedback Literacy	536
<i>Zachery Quince, Anna Lidfors Lindqvist, Patcharin Chen</i>	
Expectancy, Value, and the Rise of GenAI: Understanding Academic Help-Seeking in a Changing Education Landscape	548
<i>Muqing Guo, Hasti Samadi, Winn Chow, Arzoo Atiq, Tanya Linden</i>	
Using General Attitudes Towards Artificial Intelligence Scale (GAAIS) to Measure AI-Educational Technologies (AI-EdTech) Adoption	559
<i>Wan Qi Lee, Ai Chin Thoo, Hon Tat Huam, Ying Tuan Lo</i>	

How Do Generative AI Usage and Academic Discipline Influence Perceived Limitations and Acceptance Among Senior High School Students?.....	569
<i>Geo Albert Bravo</i>	

2C-TECHNOLOGY-DRIVEN INNOVATIONS IN ENGINEERING EDUCATION 3

Thinking Critically and Conscientiously with Design.....	578
<i>Senay Purzer</i>	
Perception of Integrating Real Case Study in Vector Calculus Course Among Engineering Mathematics Students.....	583
<i>Muhammad Imran Najeeb, Noorhelyna Razali, Izamarlina Asshaari, Mohd Haniff Osman, Nuryazmin Ahmat Zainuri, Zulkifli Mohd Nopiah, Mohd Alias Md Jedi</i>	
Visualizing Student Performance in Linear Algebra Course: A Power BI Dashboard Analysis.....	588
<i>Izamarlina Asshaari, Nuryazmin Ahmat Zainuri, Noorhelyna Razali, Nur Arzilah Ismail, Munirah Mohd Fadzil</i>	
Integrating AI Tools into Project-Based Learning in an Engineering Statistics Course	599
<i>Nuryazmin Ahmat Zainuri, Nur Arzilah Ismail, Noorhelyna Razali, Izamarlina Asshaari, Mohd Alias Md Jedi</i>	

3A-REIMAGINING ENGINEERING CURRICULUM AND ASSESSMENT PRACTICE 1

Exploring Quality of Life (QOL) Awareness and Understanding of Civil Engineering (CE) Students and Alumni Using a CE-QOL Curriculum Framework	609
<i>Andres Winston C. Oreta, Joenel G. Galupino, Erica Elice S. Uy</i>	
The New Course on STEM Education and Its Implementation: What Did Students Think?	619
<i>Muhammad Abd Hadi Bunyamin, Noorzana Khamis, Firmanul Catur Wibowo, Binar Kurnia Prahani</i>	
Keeping 900+ Students on the Same Page: Communication Strategies for Mega Scale Teamwork in Engineering Education	623
<i>Lelanie Smith, Fiona Truscott</i>	
Bridging Theory and Innovation Through the DLSU Mechanical Engineering Thesis and Capstone Programs.....	635
<i>Martin Ernesto Kalaw, Niño Rigo Emil Lim</i>	
Implementing iOBE for Visualizing and Interpreting Student Outcomes: A Course-Level Assessment	644
<i>Zulfaa Mohamed-Kassim</i>	
Designing AI-ALT: A Framework for AI-Integrated Assessment in Future-Focused Engineering Education.....	655
<i>Limalini Raveendran, Pei Ching Oh, Nurhayati Mellon</i>	

3B-LIFELONG LEARNING AND PROFESSIONAL DEVELOPMENT IN ENGINEERING

Exploring the Impact of Multi-Mode Presentations on Communication Skills Development in the Introduction to Engineering Course	664
<i>Zaki Yamani Zakaria, Aziatul Niza Sadikin, Mimi Haryani Hasim, Norhayani Othman, Aishah Rosli, Tengku Nur Zulaikha Tengku Malim Busu, Ahmad Ilyas Rushdan, Shuhada Atika Idrus Saidi, Mohamad Sukri bin Mohamad Yusof, Hamidah Kamarden</i>	
Exploring Mentorship Dynamics: Insights from a Mentor Initial Perceptions.....	676
<i>Andres E. Nieto, Gadhaun Aslam, Marq Riggins, Homero Murzi, Idalis Villanueva Alarcón, Marisela Martinez Cola</i>	
Aligning Feedback Literacy and Self-Agency to Professional Engineering Competency Standards.....	687
<i>Anna Lidfors Lindqvist, Patcharin Chen, Zachery Quince</i>	
Prioritization of Industry 5.0 Engineering Competencies Using the Analytic Hierarchy Process (AHP)	697
<i>Alexa Ray Fernando, Nurzal Effiyana binti Ghazali, Fatin Aliah Phang, Nor Farahwahidah Abd. Rahman</i>	
A Cross-Sectional Analysis of the Career Paths of Chemical Engineering Graduates: The Impact of University Education on Professional Success and Community Involvement Based on a Graduate Tracer Study	708
<i>Marie Therese Bernadette Sales, Mary Ann Pandan</i>	
Future Proofing Engineers Through Design Thinking and Real-World Learning	719
<i>Azlan Ahmad, Nurhayati Mellon, Pei Ching Oh, Nursyarizal M Nor</i>	

3C-REIMAGINING ENGINEERING CURRICULUM AND ASSESSMENT PRACTICE 2

Fundamental Conceptual Errors in First-Year Engineering Mathematics: A Thematic Analysis	728
<i>Akshara Parul, Toon van Waterschoot</i>	
Empowering Future Project Managers: The Role of Experiential Learning, Soft Skills and Sustainable Practices in Engineering Project Management Education.....	740
<i>Umawathy Techanamurthy, Roksana Jahan Tumpa, Rosmina Jaaqfar</i>	
Role-Playing as an Alternative Approach for Interactive Learning in Participatory Planning Education.....	753
<i>Chrisna T. Permana, Azka F. Najwa</i>	
A Problem-Based Learning Approach to Calculus 1 Using Students Workbooks and Digital Visualization as Instructional Media	764
<i>Yulinda Eliskar, Nina Fitriyati, Khaerudin Saleh, Latifa Majesta Saputra, Yasmin Mumtaz, Hafadli Khairul Dzakwan, Kharisma Muhammad Rizqi Nugroho</i>	
Development of Control & Instrumentation System for Final Year Design Project: Checklist P&ID	774
<i>Norliza Abd. Rahman, Jarinah Mohd Ali, Nor Yuliana Yuhana, Mohd Shabudin Mastar@Masdar, Mohd Zulhaziman, Shuhaida Harun, Siti Kartom Kamaruddin</i>	
Enhancing Computational Thinking Using Simulation Integrated Project-Based Learning (SIPrBL) in Chemical Reaction Engineering Course	779
<i>Amnani Shamjuddin, Hajar Alias, Tengku Zulaikha Malim-Busu, Mohamad Sukri Mohamad Yusof</i>	

4A-REGIONAL & GLOBAL PERSPECTIVES ON ENGINEERING EDUCATION RESEARCH 1

Rethinking Engineering Education for 2035: Progress Towards Closing Skill Deficiencies in Australian First-Year	791
<i>Zachery Quince, Saeed Shaeri, Sam Cunningham</i>	
Exploring the Link Between Career Engagement and Career Self-Efficacy Among Engineering and Science Students in Hong Kong	801
<i>Lillian Yun Yung Luk, Kelly Chen Ye</i>	
Drawing Connections: Exploring Global Engineering Perspectives Through an Arts-Informed Approach	812
<i>Natali Huggins, Homero Murzi, Lloyd Morris, Francisco Gamboa, Johnny Woods</i>	
Analyzing Research Trends and Collaborations in the Community of Practice in Engineering Education.....	824
<i>Romano Q. Neyra, King Harold A. Recto, Carlo N. Romero, Rex Paolo C. Gamara, Hans Felix R. Bosshard</i>	
Global Insights on AI Adoption in Higher Education: A Systematic Review of Educator Acceptance.....	835
<i>Shafira Attasha Shamsul Amir, Nurzal Effiyana Ghazali, Shafika Arrisha Shamsul Amir</i>	
The Impact of Accreditation Standards on the Global Recognition and Employability of Civil Engineering Graduates in the Philippines: Examining the Mediating Role of Perceived Quality of Education and the Moderating Effect of Industry Demand.....	846
<i>J. Berlin P. Juanzon, Andres W. C. Oreta, Emmanuel P. Paulino</i>	

4B-REGIONAL & GLOBAL PERSPECTIVES ON ENGINEERING EDUCATION RESEARCH 2

Work-In-Progress: Contextualising Graduate Outcomes for African Engineering Education.....	858
<i>Esther Matemba, Helen Inglis, Irene Magara, Shamim Nassar</i>	
Pedagogical Reform for Entrepreneurial Readiness: Bridging Engineering Education and Entrepreneurship in Nigeria.....	862
<i>Muhammad Abrar, Roha Masroor, Muhammad Imran Siddique, Shahzad Sarwar Bhatti</i>	
Malaysian STEM Teachers' Perceptions and Readiness for AI Integration: The Role of Training and Attitudes in Shaping Instructional Practice	873
<i>Ashmimi M.A, Nor Farahwahidah Abdul Rahman, Mohd Hanafi Samad, Mohd Munir Baharom, Muhamad Asyraf Abdul Latiff, Yap Soon Li</i>	
A Bibliometric Analysis on Critical Thinking Enhancement in Engineering Laboratory Context.....	893
<i>Pratheesh Ben, Mitra Mohd-Addi, Fatin Aliah Phang, Nurzal Effiyana Binti Ghazali, Faris Tarlochan</i>	
Multi-Agency Accreditation in Higher Education of Indonesia as a Case Study of the Faculty of Engineering at Universitas Sebelas Maret.....	904
<i>Galuh Chrismaningwang, Sholihin As'ad, Wahyudi Sutopo, Eko Surojo, Inayati Inayati, Iwan Istanto, Maxvallecia Frikandy</i>	
Assessing the Need for Digital Tools and Emerging Technologies in Addressing Student Retention and Engagement in Engineering Education.....	915
<i>Muhammad Abrar, Roha Masroor, Muhammad Imran Siddique, Shahzad Sarwar Bhatti</i>	

4C-ENHANCING EQUITY, DIVERSITY AND INCLUSION IN ENGINEERING EDUCATION

Three Generations, One Goal: Effective Communication and Conflict Management in Engineering Teams	926
<i>Sarah Junaid, Muhammad Kasim Ishfaq</i>	
Adapting Teaching Strategies for Diverse Learning Modes: A Narrative Inquiry into Occupational Safety in Energy Systems Education in Malaysia	938
<i>Zaki Yamani Zakaria</i>	
Inclusivity at the Coalface: Barriers Faced in Capability Development by Sessional Tutors.....	948
<i>Joshua Burridge, Sally A Male, Shannon A Rios</i>	
Decolonizing Engineering Education: A Cross-Institutional Approach Using Participatory Action Learning and Action Research (PALAR)	959
<i>Jessica Rush Leeker, Alexis Hunter, Channing Mathews, Kathryn Sullivan</i>	
Classroom Implementation Matters: How Diverse Teaching and Learning Strategies Impact First-Year Engineering Students' Learning Efforts?.....	971
<i>Nur Shahira Samsuri, Syed Ahmad Helmi Syed Hassan, Fatin Aliah Phang Abdullah, Khairiyah Mohd-Yusof</i>	
Exploring the Relationship Between Attendance, Gender, and Academic Performance in a Differential Equations Course	982
<i>Nur Arzilah Ismail, Nuryazmin Ahmat Zainuri, Noorhelyn Razali, Muhammad Imran Najeeb, Mohd Hanif Osman, Izamarlina Asshaari, Mohd Alias Md Jedi</i>	

Author Index