

Framework to Enhance Teaching and Learning in System Analysis and Unified Modelling Language

Munoz, Juan Carlos; Cowling, Michael A.; Birt, James R.

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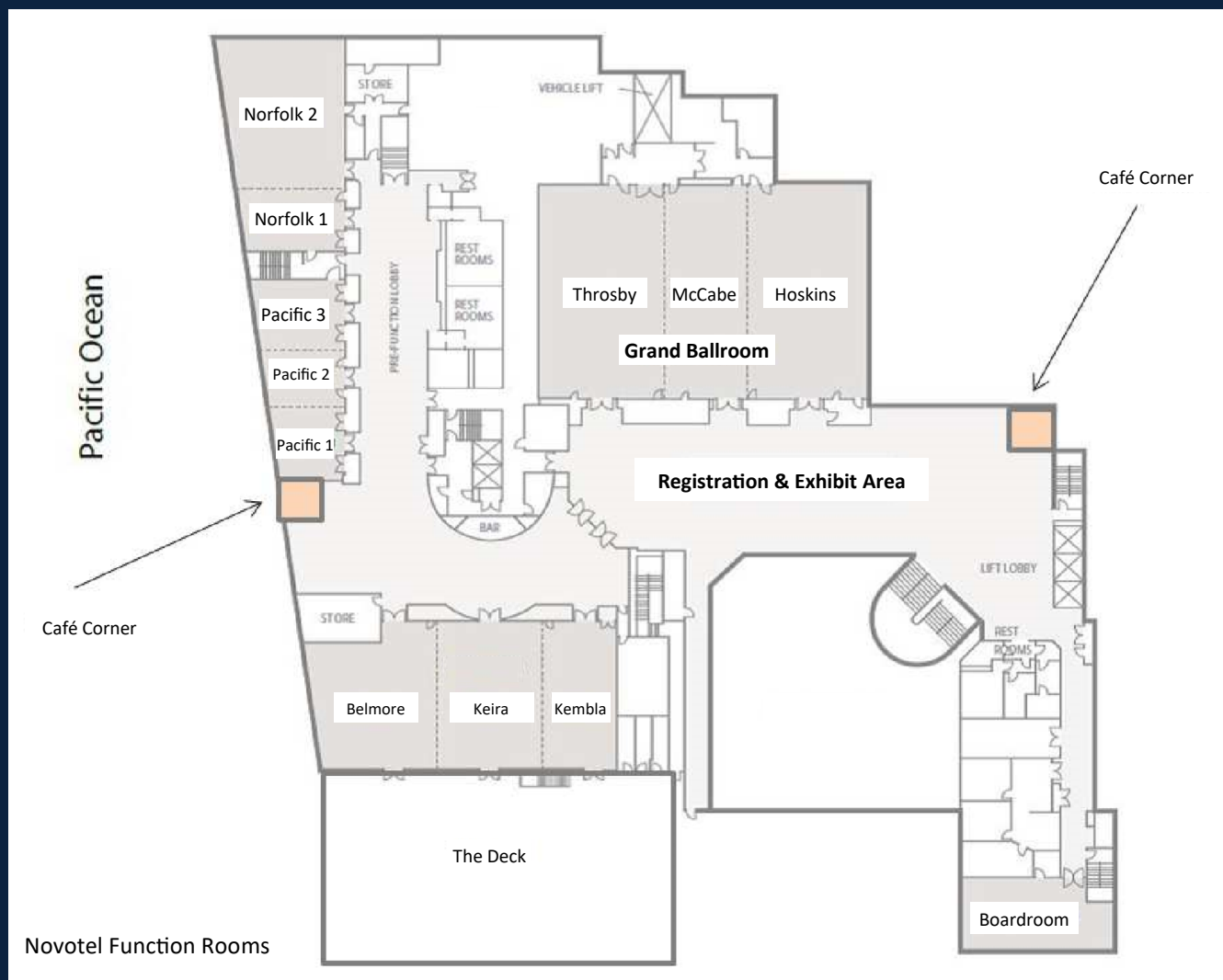
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IEEE TALE 2018

Engineering Next-Generation Learning

Wollongong, Australia
4-7 December 2018

Conference Program



Tuesday, 4 Dec 2018

Day #1: University of Wollongong Campus

| | | |
|-------------|---|--|
| 11:30—19:30 | Registration | UOW Campus - Hope Theatre |
| 12:00—15:00 | Pre-Conference Workshop 1: Patents & IP Law | UOW Campus - Building 17, Room 106 |
| 12:00—15:00 | Pre-Conference Workshop 2: Analytics & Student Support | UOW Campus - Building 3, Room 122 |
| 12:00—15:00 | Pre-Conference Workshop 3: Remote Labs | UOW Campus - Building 4, Room 122 |
| 12:00—15:00 | Pre-Conference Workshop 4 - Chatbot Tutors | UOW Campus - Building 4, Room 123 |
| 12:00—15:00 | Pre-Conference Workshop 5: XR & Immersive Learning | UOW Campus - Building 6, Room 210 |
| 16:00—16:45 | UOW Campus Tour | Meet at UOW Campus - Building 4 Atrium |
| 17:00—19:10 | Conference Opening with Keynotes by Susan Zhang & Dr Bror Saxberg | UOW Campus - Hope Theatre |
| 19:10—21:30 | Welcome Reception | UOW Campus - UniBar |

Wednesday, 5 Dec 2018

Day #2: Novotel Wollongong Northbeach

| | | |
|-------------|---|-----------------------------|
| 08:30—17:00 | Registration | Registration & Exhibit Area |
| 09:00—10:10 | Opening Session with Keynote by Prof Gregor Kennedy | Grand Ballroom |
| 10:10—16:30 | VR/AR Demo Showcase | Norfolk 1 & 2 |
| 10:10—10:40 | Poster Session | Registration & Exhibit Area |
| 10:30—10:55 | Morning Tea | Registration & Exhibit Area |

Throsby (Ballroom 1) : Engineering Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | Country |
|-------------|---------|--|-----------|
| 11:00—11:13 | 244 | Enhancing Teaching Methods on Embedded Systems with Project-Based Learning Sanfilippo Filippo Norwegian University of Science and Technology | Norway |
| 11:15—11:28 | 306 | Contribution of Learning, Teaching and Assessment Activities to the Development of 21st Century STEM Competencies Hettling Laura Brandenburg University of Technology Cottbus-Senftenberg | Germany |
| 11:30—11:43 | 284 | The Link between Spatial Skills and Engineering Problem-Solving Sorby Sheryl University of Cincinnati | USA |
| 11:45—11:58 | 227 | Evaluating Teaching Effectiveness Using Quantitative Student Feedback Srinivasan Dipti National University of Singapore | Singapore |
| 12:00—12:13 | 395 | Using Problem-Based Learning to Enable Application of Foundation Engineering Knowledge in a Real-World Problem Larson Jean S. Arizona State University | USA |

McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | Country |
|-------------|---------|---|-----------|
| 11:00—11:13 | 134 | A Quantitative Approach to Design Special Purpose Systems to Measure Hacking Skills Falah Ahmed Deakin University | Australia |
| 11:15—11:28 | 138 | Educating and Raising Awareness on Cyber Security Social Engineering: A Literature Review Aldawood Hussain Ali University of Newcastle | Australia |
| 11:30—11:43 | 359 | Approach for Evaluating IT Employees' Programming Ability Using the Programed Visual Contents Comparison Method Kiyomitsu Hidenari Kobe University | Japan |
| 11:45—11:58 | 366 | Teaching Hardware Reverse Engineering: Educational Guidelines and Practical Insights Becker Steffen Ruhr-Universität Bochum | Germany |
| 12:00—12:13 | 467 | An Essential Applied Statistical Analysis Course using RStudio with Project-Based Learning for Data Science Gunawan Aldy Singapore Management University | Singapore |

Hoskins (Ballroom 3) : Technology Enhanced Learning - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | Country |
|-------------|---------|---|-----------|
| 11:00—11:13 | 125 | Application and Evaluation of a Grouped Flipped Classroom Method Umezawa Katsuyuki Shonan Institute of Technology | Japan |
| 11:15—11:28 | 184 | Peer Assisted Study Sessions (PASS) Online: Investigating the impact of an online format across different first year university subjects Woolrych Tracey University of Wollongong | Australia |
| 11:30—11:43 | 275 | Students Discussing Ideas in Online Spaces: Research-Infused Recommendations for Making Computer-Mediated Discussions Productive for Learning Zengilowski Allison Nicole University of Texas at Austin | USA |
| 11:45—11:58 | 371 | Evaluation of Developing Educational Chatbots Based on The Seven Principles for Good Teaching Luo Jing The University of Hong Kong | Hong Kong |
| 12:00—12:13 | 425 | Transferring Human Tutor's Style to Pedagogical Agent: A Possible Way by Leveraging Variety of Artificial Intelligence Achievements Feng Xiang East China Normal University | China |

| Kembla : STEM Education (K-12) Full Papers - Full Papers (10min presentations + 3min questions) | | | | | |
|---|---------|---|------------|-------------------------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 11:00—11:13 | 270 | Using Maths Model Method in Solving Pre Algebraic Problems among Year Five Students | | | Malaysia |
| | | Binti Ismail | Zaleha | Universiti Teknologi Malaysia | |
| 11:15—11:28 | 105 | Arduino as an Educational Tool to Introduce Robotics | | | Spain |
| | | Castro | Manuel | UNED | |
| 11:30—11:43 | 157 | Computational Thinking and Coding Subject in Primary Schools: Methodological Approach Based on Alternative Cooperative and Individual Learning Cycles | | | Australia |
| | | Vlahu-Gjorgievska | Elena | University of Wollongong | |
| 11:45—11:58 | 318 | Computational Thinking Education for Children: Algorithmic Thinking and Debugging | | | Hong Kong |
| | | Wong | Gary K. W. | The University of Hong Kong | |
| 12:00—12:13 | 337 | Framework of Integrating Algebraic Thinking in Problem-Based Learning via Online Environment for School Students | | | Malaysia |
| | | Binti Ismail | Zaleha | Universiti Teknologi Malaysia | |

| Pacific 1&2 : XR & Immersive Learning Environments - Full Papers (10min presentations + 3min questions) | | | | | |
|---|---------|--|-------------------|---------------------------|---------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 11:45—11:58 | 391 | Design and Implementation of an Augmented Reality Application with an English Learning Lesson | | | China |
| | | Liu | Enrui | Beijing Normal University | |
| 12:00—12:13 | 444 | Investigating Using Behaviors of E-dictionary with Multiple Design: A Perspective from the Integration of Eye-Tracking Technique and Stimulated Recall | | | China |
| | | Zhai | Xuesong (Michael) | Beijing Normal University | |

| Pacific 3 : Engineering Education - Full Papers (10min presentations + 3min questions) | | | | | |
|--|---------|--|-------------|--------------------------------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 11:00—11:13 | 333 | Are We Fit to Graduate Creative Professionals? | | | Australia |
| | | Belski | Iouri | RMIT | |
| 11:15—11:28 | 474 | Teaching Reform of Engineering Graphics Education in Terms of Engineering Education Professional Certification in Guangzhou, China | | | China |
| | | Liu | Zhen | South China University of Technology | |
| 11:30—11:43 | 486 | Learning Strategies to Optimize the Assimilation of ITC2 Competencies for Business Engineering Programs | | | Peru |
| | | Luna | Ana | Universidad del Pacifico | |
| 11:45—11:58 | 252 | A Java Program for Automatic Team Allocation in Project-Based Coursework | | | Australia |
| | | Vial | Peter James | University of Wollongong | |
| 12:00—12:13 | 266 | Higher Education Practices Accounting for Gender Differences in Technological Development as Part of SDGs Achievement | | | Japan |
| | | Hirata | Sadayo | Shibaura Institute of Technology | |

| Keira : Industry Sessions | | | | | |
|---------------------------|---------|---|--------|----------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 11:00—11:40 | 500 | Microsoft HoloLens and AI | | | Australia |
| | | Townes | Megan | Microsoft | |
| 11:40—12:00 | 505 | Enriching Education: Free Classroom Computing Education Resources Increase STEM Diversity | | | Australia |
| | | Haas | Damian | Oracle Academy | |

| Belmore: Panel Session | | | | | |
|------------------------|---------|---|--------|-------------------------------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 11:00—12:20 | 500 | Panel Session - Providing Automated and Individually Tailored Assessment Feedback | | | |
| | | Cunningham-Nelson | Samuel | Queensland University of Technology | Australia |
| | | Mohammadi-Aragh | Jean | Mohammadi-Aragh | USA |
| | | Goncher | Andrea | Charles Sturt University | Australia |
| | | Boles | Wageeh | Queensland University of Technology | Australia |

| Registration and Exhibit Area and Norfolk Rooms & Windjammers Restaurant | | | | |
|--|--------------------------------------|--|--|---|
| 12:15—12:55 | Poster Session & VR/AR Demo Showcase | | | Registration & Exhibit Area & Norfolk Rooms |
| 12:55—13:55 | Lunch | | | Windjammers Restaurant |

Throsby (Ballroom 1) : Engineering Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|----------|--|-------------|
| 14:00—14:13 | 229 | Mind the Gap: Insights into Student Perceptions During Peer Assessment of Writing | | | New Zealand |
| | | Tan | Benjamin | The University of Auckland | |
| 14:15—14:28 | 432 | Make Your Own Homework: An Alternative Approach to Assignments in a Flipped Calculus Class | | | Indonesia |
| | | Dawood | Rahmad | Universitas Syiah Kuala | |
| 14:30—14:43 | 461 | Objective Assessment of Students' Generic Skills | | | Japan |
| | | Yajima | Kuniaki | National Institute of Technology, Sendai College | |
| 14:45—14:58 | 306 | An Inter-Disciplinary and University PBL Curriculum Using Robot Challenge | | | Japan |
| | | Hisazumi | Kenji | Kyushu University | |
| 15:00—15:13 | 322 | Exploring the Impact of In-Class Writing Exercises in an Engineering Course | | | New Zealand |
| | | Nadeem | Muhammad | The University of Auckland | |
| 15:15—15:28 | 227 | Creative Thinking of Engineering Undergraduates through Brainstorming during Mathematical Problem Solving | | | Malaysia |
| | | Mohammad Yusof | Yudariah | Universiti Teknologi Malaysia | |

McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|----------|---|-----------|
| 14:00—14:13 | 467 | A Comparison Analysis between Achievement and Requirements for Computing Education | | | Japan |
| | | Kakeshita | Tetsuro | Saga University | |
| 14:15—14:28 | 347 | Skill-Based Group Allocation of Students for Project-Based Learning Courses Using Genetic Algorithm: Weighted Penalty Model | | | Fiji |
| | | Nand | Ravneil | The University of the South Pacific | |
| 14:30—14:43 | 365 | Skill-Based Group Allocation of Students for Project-Based Learning Courses Using Genetic Algorithm: Weightless Penalty Model | | | Fiji |
| | | Nand | Ravneil | The University of the South Pacific | |
| 14:45—14:58 | 384 | Effectiveness of Physical Robot Versus Robot Simulator in Teaching Introductory Programming | | | Singapore |
| | | Sockalingam | Nachamma | Singapore University of Technology and Design | |
| 15:00—15:13 | 130 | SplashKit: A Development Framework for Motivating and Engaging Students in Introductory Programming | | | Australia |
| | | Renzella | Jake | Deakin University | |
| 15:15—15:28 | 294 | Improving outcomes for a Masters Capstone IT Project | | | Australia |
| | | Izu | Cruz | The University of Adelaide | |

Hoskins (Ballroom 3) : Technology-Enhanced Learning - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|--------------------|--------------------------------|-------------|
| 14:00—14:13 | 272 | Technology-Supported Single Training for One-on-One in Basketball Matches | | | Japan |
| | | Kohda | Naoya | Tokushima University | |
| 14:15—14:28 | 446 | A Gamification Approach For Serious Games | | | France |
| | | Carron | Thibault | LIP6, UPMC | |
| 14:30—14:43 | 194 | An Empirical Study on the Impact of Pre-recorded Lectures on Students' Performance in Integral Calculus | | | Philippines |
| | | Fernando | Alexa Ray Ronsairo | National University | |
| 14:45—14:58 | 271 | Enhanced Student Learning in Proteomics - An Interactive Tool Support for Teaching Workflows | | | Australia |
| | | Wickramarachchi | Anuradha | Australian National University | |
| 15:00—15:13 | 288 | Making the Most of Repetitive Mistakes: An Investigation into Heuristics for Selecting and Applying Feedback to Programming Coursework | | | UK |
| | | Howell | Roger | Aston University | |
| 15:15—15:28 | 320 | The Effectiveness of Integrating Geometer's Sketchpad Software in Phase-Based Geometric Learning | | | Malaysia |
| | | Mohd Zaid | Norasykin | Universiti Teknologi Malaysia | |

Kembla : STEM Education (K-12) - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|----------------|--|-----------|
| 14:00—14:13 | 374 | Relationship between Teachers' Self-Efficacy and Instructional Strategies Applied among Secondary School Teachers in Implementing STEM Education | | | Malaysia |
| | | Binti Ismail | Zaleha | Universiti Teknologi Malaysia | |
| 14:15—14:28 | 114 | Relationships between Collaborative Problem Solving, Learning Performance and Learning Behavior in Science Education | | | Japan |
| | | Chen | Li | Kyushu University | |
| 14:30—14:43 | 212 | Cognitive Load Optimisation – A New, Practical, Easy-to-Use Teaching Method for Enhancing STEM Educational Outcomes Based on the Science of Learning | | | Australia |
| | | Maj | Stanislaw Paul | SPM Consulting | |
| 14:45—14:58 | 285 | Playful STEAM Learning Using Robots | | | India |
| | | Pandian | Shunmugham R. | Indian Institute of Information Technology, Design and Manufacturing | |
| 15:00—15:13 | 439 | ICT Competency, Network Interaction, Internet Self-efficacy, and Mathematical Achievement: Direct and Mediating Effects | | | China |
| | | Lu | Chun | Central China Normal University | |
| 15:15—15:28 | 277 | Awakening the Interest of High School Pupils in Science, Technology, Engineering and Mathematics Studies and Careers through Scientific Projects | | | Germany |
| | | Kazula | Stefan | Brandenburg University of Technology Cottbus-Senftenberg | |

Pacific 1 & 2 : XR & Immersive Learning Environments - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|-----------|--|-------------|
| 14:00—14:13 | 258 | Evaluation of a Virtual Reality Nasal Cavity Education Tool | | | New Zealand |
| | | Marks | Stefan | Auckland University of Technology | |
| 14:15—14:28 | 482 | Immersive Learning Explored: Subjective and Objective Factors Influencing Learning Outcomes in Immersive Educational Virtual Environments | | | Germany |
| | | Dengel | Andreas | University of Passau | |
| 14:30—14:43 | 313 | Integration of Virtual Reality and Augmented Reality: Are They Worth the Effort in Education? | | | Australia |
| | | Pita | Zijad | Kent Institute | |
| 14:45—14:58 | 353 | Collaborative Virtual Reality Simulation for Multi-Professional Training in Emergency Management Communications | | | Norway |
| | | Prasolova-Førland | Ekaterina | Norwegian University of Science and Technology | |
| 15:00—15:13 | 355 | Developing Virtual Reality Open Educational Resources in a Sino-Foreign Higher Education Institution: Challenges and Strategies | | | China |
| | | Towey | Dave | University of Nottingham Ningbo China | |
| 15:15—15:28 | 380 | A Study on Female Students' Attitude Towards the Use of Augmented Reality to Learn Atoms and Molecules Reactions in a Palestinian School | | | Palestine |
| | | Ewais | Ahmed | Arab American University | |

Pacific 3 : Computing & IT Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|----------|--|--------------|
| 14:00—14:13 | 129 | A Top-Down Approach to Teaching Web Development in the Cloud | | | Japan |
| | | Liang | Zilu | The University of Tokyo | |
| 14:15—14:28 | 435 | Tutoring Environment for Automata and the Users’ Achievement Goal Orientations | | | Philippines |
| | | Tecson | Cesar | Ateneo de Manila University, Philippines | |
| 14:30—14:43 | 445 | The Impact of Crossword Puzzles on Students’ Performance: Does Pre-exposure to Puzzles Matter? | | | South Africa |
| | | Lottering | Roderick | Tshwane University of Technology | |

Keira : Industry Session & K-12 Practitioner Session (15min presentations + 4min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|---------------|-----------------------------|-----------|
| 14:00—14:40 | 501 | Microsoft Teams | | | |
| | | Townes | Megan | Microsoft | Australia |
| 14:40—15:00 | 341 | School / Industry STEM Partnerships (SIPS) | | | |
| | | Scott | Matthew James | NSW Department of Education | Australia |
| 15:00—15:20 | 420 | Using Digital Technology to Enhance Teaching and Learning in Engineering Studies with Integration of Computational Thinking | | | |
| | | Leung | Ho Chung | GRC Oatley Senior Campus | Australia |

Belmore : Panel , Industry & Big Data, Analytics & Machine Learning in Education Sessions

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|----------|---------------------------------|-----------|
| 14:00—14:40 | 489 | Panel Session - Scaling Up Learning Analytics Research Innovations: Challenges and Approaches | | | |
| | | Whitmer | John C. | ACT, Inc | USA |
| | | Kennedy | Gregor | The University of Melbourne | Australia |
| | | Ben-Naim | Dror | Smart Sparrow | Australia |
| | | Pardo | Abelardo | University of South Australia | Australia |
| 14:40—15:00 | 506 | Turning STEM Grading Into Learning | | | |
| | | Singh | Arjun | Gradescope by Turnitin | Australia |
| 15:00—15:15 | 108 | Integrated Telegram and Web-based Forum with Automatic Assessment of Q&A for Collaborative Learning | | | |
| 15:15—15:30 | 155 | Dai | Bingtian | Singapore Management University | Singapore |
| | | MOOC-O-Bot: Using Cognitive Technologies to Extend Knowledge Support in MOOCs | | | |
| | | Vigentini | Lorenzo | UNSW Sydney | Australia |

Registration & Exhibit Area

| | | |
|-------------|---------------|-----------------------------|
| 15:55—15:55 | Afternoon Tea | Registration & Exhibit Area |
|-------------|---------------|-----------------------------|

Throsby (Ballroom 1) : Engineering Education - Short Papers (6min presentations + 2min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|----------|-----------------------------------|-----------|
| 16:00—16:08 | 214 | A Holistic View on Engineering Education: How to Educate Control Engineers | | | Norway |
| | | Samuelson | Dag A. H | University of Southeastern Norway | |
| 16:10—16:18 | 316 | Smart Grid Education: A Review of Global Course Offerings and the UNSW Sydney Approach | | | Australia |
| | | Konstantinou | Georgios | University of New South Wales | |
| 16:20—16:28 | 300 | From an International Classroom to a Distributed Work Environment: Student Perspectives on Global Software Engineering | | | Japan |
| | | Vasilache | Simona | University of Tsukuba | |
| 16:30—16:38 | 264 | Unplugged Game Play Motivates the Study of Engineering Ethics | | | Australia |
| | | Skinner | Iain | University of New South Wales | |
| 16:40—16:48 | 148 | Using Games for Learning to Improve Students Performance in Higher Education | | | Norway |
| | | Velvin | Jan | University of Southeastern Norway | |
| 16:50—16:58 | 418 | Assessment Map for Multidisciplinary Abilities for IoT System Development Education @based on a Robot Contest | | | Japan |
| | | Watanabe | Harumi | Tokai University | |
| 17:00—17:08 | 241 | Analysis of Engineering Students Academic Satisfaction in a Culturally Diverse University | | | UAE |
| | | Hysaj | Ajrina | University of Wollongong in Dubai | |

| McCabe (Ballroom 2) : Big Data, Analytics & Machine Learning in Education and Industry Sessions | | | | | |
|---|---------|---|-----------------|---|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 16:00—16:08 | 245 | Artificial Intelligence to Enhance Learning Design in UOW Online, a Unified Approach to Fully Online Learning | | | Australia |
| | | Cao | Trinh | University of Wollongong | |
| 16:10—16:18 | 263 | Using Data Mining and Machine Learning Approaches to Observe Technology-Enhanced Learning | | | Australia |
| | | Howard | Sarah Katherine | University of Wollongong | |
| 16:20—16:28 | 415 | Inferring the Climate in Classrooms from Audio and Video Recordings: A Machine Learning Approach | | | Singapore |
| | | Kashyap | Mohan | Nanyang Technological University | |
| 16:30—16:38 | 416 | Hybrid Fuzzy-Statistical System for Learning Analytics | | | Australia |
| | | Sohail | Shaleeza | King's Own Institute | |
| 16:40—17:00 | 506 | Turning STEM Grading Into Learning (Repeat) | | | Australia |
| | | Singh | Arjun | Gradescope by Turnitin | |
| Hoskins (Ballroom 3) : Technology-Enhanced Learning - Short Papers (6min presentations + 2min questions) | | | | | |
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 16:00—16:08 | 436 | Developing Higher Order Thinking Skill with the 120-Minute Instructional Station Rotation (MRSP120) Approach: Students' Perceptions | | | Malaysia |
| | | Mohd Zaid | Norasykin | Universiti Teknologi Malaysia | |
| 16:10—16:18 | 150 | Usability Testing of VLASTA: A Vocabulary Learning and Strategy Teaching App | | | Australia |
| | | Mirzaei | Siamak | Flinders Univesity | |
| 16:20—16:28 | 225 | An Innovative Hybrid Model for Developing Cross Domain ICT Talent in Digital Economy | | | Taiwan |
| | | Wu | Hsin-jung | Institute for Information Industry | |
| 16:30—16:38 | 273 | Improving Student’s Engagement through the Use of Learning Modules, Instantaneous Feedback and Automated Marking | | | China |
| | | Rattadilok | Prapa | University of Nottingham Ningbo China | |
| 16:40—16:53 | 329 | Improving Feedback and Discussion in MOOC Peer Assessment using Introduced Peers - Full Paper (10min pres +3min) | | | Sri Lanka |
| | | Gamage | Dilrukshi | University of Moratuwa | |
| Kembla : STEM Education (K-12) - Short Papers (6min presentations + 2min questions) | | | | | |
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 16:00—16:08 | 268 | Supporting Physics Teachers to Deliver the New High School Certificate Syllabus: What are the Priorities? | | | Australia |
| | | Jarrett | Lorna Elaine | University of Wollongong | |
| 16:10—16:18 | 390 | Teaching Mathematics with Music: A Pilot Study | | | Australia |
| | | Hamilton | Tara Julia | Macquarie University | |
| 16:20—16:28 | 424 | Kids Making AI : Integrating Machine Learning, Gamification, and Social Context in STEM Education | | | Thailand |
| | | Pataranutaporn | Pat | King Mongkut's University of Technology Thonburi | |
| 16:30—16:38 | 428 | Hack Biodesign: An Integrative STEAM Education in Biology, Engineering and Design | | | Thailand |
| | | Subsoontorn | Pakpoom | Naresuan University | |
| 16:40—16:48 | 477 | Preparing Australian High School Learners with 21st Century Skills | | | Australia |
| | | Shields | Rebecca | Central Queensland University | |
| 16:50—16:58 | 319 | The Effectiveness of a Mentor–Mentee Program on Malaysian School Students’ Interest in STEM | | | Malaysia |
| | | Mohd Zaid | Norasykin | Universiti Teknologi Malaysia | |
| Pacific 1 & 2 : XR & Immersive Learning Environments - Short Papers (6min presentations + 2min questions) | | | | | |
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 16:00—16:19 | 419 | Scaling Immersive Learning Technology at TAFE NSW (VET Practitioner 15min presentation + 4min questions) | | | Australia |
| | | Dean | David | TAFE NSW | |
| 16:20—16:28 | 421 | Evaluating Alternative Input Techniques for Building and Construction VR Training | | | Australia |
| | | Dean | David | TAFE NSW | |
| 16:30—16:38 | 292 | Augmented Reality Experiences in Informal Education | | | USA |
| | | Petrovich Jr. | Mark Eugene | Drexel University | |
| 16:40—16:48 | 458 | Using Augmented Reality and Mobile Technologies to Train Automotive Technicians | | | USA |
| | | Rymer | Maureen | San Diego State University | |
| 16:50—17:05 | 381 | Annotating Animated AR Objects for Co-located Learning (Full paper 10min presentation + 3min questions) | | | Australia |
| | | Reinoso | Martin | The University of Melbourne | |
| Pacific 3 : Industry Session | | | | | |
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 16:00—16:40 | 512 | Seamless, Intelligent Mechatronics Innovation Platform | | | Australia |
| | | Kuttner | Filip | 3DS | |
| 16:40—17:20 | 475 | Scaling Automated Scoring: Addressing Practical and Conceptual Challenges | | | Australia |
| | | Lazendic | Goran | Australian Curriculum, Assessment and Reporting Authority | |

Keira : Panel Session

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|---------|------------------------------|-----------|
| 16:00—17:20 | | Panel Session - Learning Technology Standards | | | |
| | | Wait | Lisa | eWorks | Australia |
| | | Chadwick | Ben | Education Services Australia | Australia |
| | | Saliah-Hassane | Hamadou | TÉLUQ University | Canada |
| | | Jon | Mason | Charles Darwin University | Australia |

Belmore : Panel Session

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|------------|----------------------------------|-----------|
| 16:00—17:20 | | Women in Engineering Networking Panel | | | |
| | | Chakraborty | Sudipta | Macquarie University | Australia |
| | | Ros | Montserrat | University of Wollongong | Australia |
| | | Cheng | Eva | University of Technology, Sydney | Australia |
| | | Goncher | Andrea | Charles Sturt University | Australia |
| | | Vial | Alanna | University of Wollongong | Australia |

Lagoon Seafood Restaurant

| | | |
|-------------|-------------|-----------------------------------|
| 18:00—22:00 | Gala Dinner | 3-5min walk from conference hotel |
|-------------|-------------|-----------------------------------|

Thursday, 6 Dec 2018

Day #3: Novotel Wollongong Northbeach

| | | |
|-------------|--------------|-----------------------------|
| 08:30—16:30 | Registration | Registration & Exhibit Area |
|-------------|--------------|-----------------------------|

Throsby (Ballroom 1) : Engineering Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|----------|-----------------------------------|--------------|
| 9:30—9:43 | 251 | Theory And Practice In A Systems Integration Project Life Cycle | | | |
| | | Wolff | Karin | University of Stellenbosch | South Africa |
| 9:45—9:58 | 470 | Exploring Approaches for Teaching and Learning Engineering Asset Management Courses | | | |
| | | El-Akruti | Khaled | University of Wollongong in Dubai | UAE |
| 10:00—10:13 | 183 | Complete Flipping of a Large Advanced Analytical Course: Engaging Students as Partners | | | |
| | | Thite | Swapneel | UNSW Sydney | Sydney |
| 10:15—10:28 | 161 | A Study on The Process and Effect of Using Cooperative Learning Approach into Electronics Lecture | | | |
| | | Chang | Pei-Hua | Kun Shan University | Taiwan |
| 10:30—10:43 | 269 | Copyright Awareness and Video Assignment: A Case Study on Thai First-Year Engineering Students | | | |
| | | Maneeratana | Kuntinee | Chulalongkorn University | Thailand |

McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|-------------|---------------------------------------|-----------|
| 9:30—9:43 | 131 | Verifying User Concentration Based on Brainwave Control Applied to Different Game Training Methods | | | |
| | | Liu | Chui Yuan | Institute for Information Industry | Taiwan |
| 9:45—9:58 | 172 | Framework to Enhance Teaching and Learning in System Analysis and Unified Modelling Language | | | |
| | | Muñoz Carpio | Juan Carlos | Central Queensland University | Australia |
| 10:00—10:13 | 185 | International Comparison of College-Level Computing Education | | | |
| | | Kakeshita | Tetsuro | Saga University | Japan |
| 10:15—10:28 | 213 | Redesigning a Compulsory Computing Internship Course for Massification | | | |
| | | Chng | Sue Inn | Sunway University | Malaysia |
| 10:30—10:43 | 344 | Developing a Language Learning Application OER | | | |
| | | Towey | Dave | University of Nottingham Ningbo China | China |

| Kembla : Laboratory Learning and Technology-Enhanced Learning - Full Papers (10min presentations + 3min questions) | | | | | |
|--|---------------|---|-------------------------------------|--|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 9:30—9:43 | | Applied Learning Through Industry Lab In A Course On RF Engineering & EMC | | | Singapore |
| | Venkatarayalu | Neelakantam | Singapore Institute of Technology | | |
| 9:45—9:58 | | Pedagogy for the Practising Engineer: A Closed Loop Feedback Control Analogy to Teaching and Learning | | | Australia |
| | McLauchlan | Craig | University of Wollongong | | |
| 10:00—10:13 | | Understanding Common Student Mistakes in the Remote Laboratory NetLab | | | Australia |
| | Considine | Hugh | University of South Australia | | |
| 10:15—10:28 | | Smart Learning in the Pacific: Design of New Pedagogical Tools | | | Fiji |
| | Nand | Ravneil | The University of the South Pacific | | |
| 10:30—10:43 | | Evaluation of Automatic Collaborative Learning Process Coding Using Deep Learning Methods | | | Japan |
| | Shibata | Chihiro | Tokyo University of Technology | | |

| <u>Keira</u> : Open, Flexible & Workplace Learning - Full Papers (10min presentations + 3min questions) | | | | | |
|---|---------|---|---------|-------------------------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 9:30—9:43 | 345 | Learning Management Systems in the Workplace: A Literature Review | | | Australia |
| | | Sabharwal | Renu | Central Queensland University | |
| 9:45—9:58 | 293 | Student Collegiality in Interdisciplinary Global Contexts | | | Australia |
| | | Mitric | Damir | La Trobe University | |
| 10:00—10:13 | 405 | An Intervention Study on the Professional Adaptability of Students in Navigation Course of Educational Technology | | | China |
| | | Wu | Yong he | East China Normal University | |
| 10:15—10:28 | 348 | Transnational Interactive Blended Learning: A Learning Community of Practice | | | USA |
| | | Wang | Minjuan | San Diego State University | |

| Belmore : Special & Industry Sessions | | | | | |
|---------------------------------------|---------|---|--------|----------------------------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 9:30—10:10 | 478 | Designing Virtual Learning Experiences: Iterating Immersive Environments | | | Australia |
| | | Dongas | Robert | The University of Sydney | |
| 10:10—10:30 | 506 | Festo/LabVolt Electromechanical Systems – A Practical Demonstration | | | Australia |
| | | Lewis | Martin | Duff and Macintosh-Festo LabVolt | |

| <u>Boardroom</u> : By Invitation Only | | | | |
|---------------------------------------|---------|---|--|---------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | Country |
| 9:30—10:45 | N/A | TALE Steering Committee Meeting | | R10 |

| Registration & Exhibit Area | | | | |
|-----------------------------|-------------|--|-----------------------------|--|
| 10:45—11:15 | Morning Tea | | Registration & Exhibit Area | |

| Throsby (Ballroom 1) : Engineering Education - Short Papers (6min presentations + 2min questions) & Industry Session | | | | | |
|--|---------|--|----------------|--|-------------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 11:20—11:28 | 132 | Systems Intelligence: A Core Competence for Next- Generation Engineers? | | | Finland |
| | | Hämäläinen | Raimo Pertti | Aalto University | |
| 11:30—11:38 | 182 | Academic Expectations for Engineering Freshmen: Gender Differences | | | Portugal |
| | | Vasconcelos | Rosa M. | University of Minho | |
| 11:40—11:48 | 370 | Active Interdisciplinary Learning in a Design Thinking Course: Going to Class for a Reason | | | Switzerland |
| | | Gillet | Denis | cole Polytechnique Fédérale de Lausanne | |
| 11:50—11:58 | 168 | Facilitating the Development of Humor in Electrical Engineering Students | | | Australia |
| | | O'Shea | Peter | The University of Queensland | |
| 12:00—12:08 | 398 | Context and Input Evaluations of Physical Fitness Training Programs in Maritime Schools | | | Philippines |
| | | Bueta | Rosalin Duller | Maritime Academy of Asia and the Pacific | |
| 12:10—12:30 | 504 | The Hands-on Engineer: Helping Students Master the Spectrum Analyzer | | | Australia |
| | | Tan | Tristen | Rohde & Schwarz | |

McCabe (Ballroom 2) : Computing & IT Education - Full Papers (10min presentations + 3min questions)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|-----------|---------------------------------------|-----------|
| 11:20—11:28 | 127 | How We Face Globalization of Chinese Education | | | China |
| | | Zhao | Liang | Shenyang Aerospace University | |
| 11:30—11:38 | 309 | Active Learning to Develop Key Research Skills in Master's Level Computer Science Coursework | | | Singapore |
| | | Carlson | Trevor E. | National University of Singapore | |
| 11:40—11:48 | 401 | Teaching Key Machine Learning Principles Using Anti-Learning Datasets | | | China |
| | | Roadknight | Chris | University of Nottingham Ningbo China | |
| 11:50—11:58 | 430 | A Proposal for Integrating Gamification into Task-Oriented Portfolio Assessment | | | Australia |
| | | Renzella | Jake | Deakin University | |

Hoskins (Ballroom 3) : Technology-Enhanced Learning - Short Papers (6min presentations + 2min questions) & Industry Session

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|-----------------|--|-------------|
| 11:20—11:28 | 256 | Knowledge Sharing in Digital Learning Communities: A Comparative Review of Issues between Education and Industry | | | Australia |
| | | Jackson | Timothy Michael | University of Wollongong | |
| 11:30—11:38 | 343 | Adopting Good-Learners’ Paths in an Intelligent Tutoring System | | | Indonesia |
| | | Meliana | Selly | Telkom University | |
| 11:40—11:48 | 160 | Smart Phone Endowed Intelligent Teaching for University General Education Curriculum in China | | | China |
| | | Liu | Zhen | South China University of Technology | |
| 11:50—11:58 | 186 | Using Trello to Support Agile and Lean Learning with Scrum and Kanban in Teacher Professional Development | | | New Zealand |
| | | Inkila | Milla | The Mind Lab | |
| 12:00—12:08 | 149 | TSP: Truthful Grading-Based Strategyproof Peer Selection for MOOCs | | | China |
| | | Wang | Yufeng | Nanjing University of Posts and Telecommunications | |
| 12:10—12:30 | 503 | Enhancing Digital Learning in Engineering, Solved | | | Australia |
| | | Sofios | Haritos | Smart Sparrow | |

Kembla : XR & Immersive Learning Environments - Short Papers (6min presentations + 2min questions) & Industry Session

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|----------------|-----------------------------------|-------------|
| 11:20—11:28 | 103 | Using Virtual Reality to Enhance Learning in a Chinese Architectures Course: A Flipped Classroom Approach | | | Hong Kong |
| | | Im | Siu Wo Tarloff | City University of Hong Kong | |
| 11:30—11:38 | 249 | AHA: ADHD Augmented (Learning Environment) | | | Ireland |
| | | Hasegawa | Tomonori | University College Dublin | |
| 11:40—11:48 | 258 | Extending a Virtual Reality Nasal Cavity Education Tool with Volume Rendering | | | New Zealand |
| | | Marks | Stefan | Auckland University of Technology | |
| 11:50—11:58 | 362 | Why Don't You Evacuate Speedily? Augmented Reality-Based Evacuee Visualisation in ICT-based Evacuation Drill | | | Japan |
| | | Mitsuahara | Hiroyuki | Tokushima University | |
| 12:00—12:08 | 452 | An Evaluation of Nursing Student Motivation to Learn through Holographic Mixed Reality Simulation | | | USA |
| | | Hauze | Sean | San Diego State University | |
| 12:10—12:18 | 481 | Seeking the Treasures of Theoretical Computer Science Education: Towards Educational Virtual Reality for the Visualization of Finite State Machines | | | Germany |
| | | Dengel | Andreas | University of Passau | |
| 12:20—12:33 | 327 | The Potential of Augmented Reality for Computer Science Education (Full paper 10min presentation + 3min questions) | | | Australia |
| | | Resnyansky | Dmitry | University of South Australia | |

Keira : Industry Session

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|---------|---|-----------|
| 11:20—12:00 | 514 | The Future of Industry and Preparing the Future Workforce | | | Australia |
| | | Dodd | Brenton | Solvía (Dassault Systèmes Business Solutions) | |

Belmore : Special Session

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|--------|--------------------------|-----------|
| 11:20—12:40 | 468 | Practice-Based Simulation to Develop Students into Engineering Cadets | | | Australia |
| | | Devitt | Joshua | Charles Sturt University | |

Boardroom : *Special Session (Part 1)*

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|---------------|--------------------------|-----------|
| 11:20—12:40 | 226 | Enhancing Class Interactivity—Teaching and Learning Professional Development Session (Part 1) | | | Australia |
| | | Dean | Bonnie Amelia | University of Wollongong | |

| | | | | | |
|------------------------|-------|------------------------|--|--|--|
| Windjammers Restaurant | | | | | |
| 12:30—13:35 | Lunch | Windjammers Restaurant | | | |

Throsby (Ballroom 1) : Engineering Education - Short Papers (*6min presentations + 2min questions*)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|--|-------------------|---|-------------|
| 13:40—13:48 | 307 | Praxis-Oriented Teaching of Project Management Skills for STEM Students in Higher Education | | | Germany |
| | | Rich | Beatrice M. | Brandenburg University of Technology | |
| 13:50—13:58 | 308 | Preparing STEM Students for Leading Positions through Supervising Younger Students | | | Germany |
| | | Worlitz | Jane | Brandenburg University of Technology | |
| 14:00—14:08 | 340 | 'Learning 4.0': A Conceptual Discussion | | | Germany |
| | | Klopp | Marco | Aschaffenburg University of Applied Sciences | |
| 14:10—14:18 | 193 | Development of a Real-Time Evaluation Support System Using Physiological Index: Case Study of a Simulator-Based Ship Handling Exercise | | | Japan |
| | | Murai | Koji | Tokyo University of Marine Science and Technology | |
| 14:20—14:28 | 400 | The Impact of Final Term Exam Exemption Policy: Case Study at MAAP | | | Philippines |
| | | David | Lawrence C. G. | Maritime Academy of Asia and the Pacific | |
| 14:30—14:38 | 377 | A Preliminary Study of the Implementation of Concept Maps for Teaching and Learning Strategies in a Power Engineering Course | | | Malaysia |
| | | Aziz | Anees Binti Abdul | Universiti Teknologi MARA | |
| 14:40—14:48 | 392 | Empowering Weak Engineering Students through My UiTM Engineer Program and Understanding the Characteristics of Weak Students | | | Malaysia |
| | | Hussin | Hanim | Universiti Teknologi MARA | |
| 14:50—14:58 | 179 | Multidisciplinary Student Performance-Based Teaching Design for Engineering Design via a Commercial Case | | | China |
| | | Liu | Zhen | South China University of Technology | |

McCabe (Ballroom 2) : Miscellaneous Short Papers - Short Papers (*6min presentations + 2min questions*)

| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
|-------------|---------|---|----------------|---|-------------|
| 13:40—13:48 | 472 | Engineering Students at Day Zero: Selection and Concerns by Gender | | | Australia |
| | | Nikolic | Sasha | University of Wollongong | |
| 13:50—13:58 | 143 | Towards a Holistic Approach to Improve the Retention Rate of Freshmen in Engineering | | | Pakistan |
| | | Abid | Muhammad Irfan | Riphah International University, Faisalabad | |
| 14:00—14:08 | 278 | Readiness of Japanese Elementary School Teachers to Begin Computer-Programming Education | | | Japan |
| | | Ohashi | Yutaro | Nippon Institute of Technology | |
| 14:10—14:18 | 397 | The Beneficial Effects of an Autonomously Operated Engineering Education Outreach Program: A Case Study of the Servant Leadership Program | | | South Korea |
| | | Jung | Eunju | Korea University | |

| Hoskins (Ballroom 3) : Technology-Enhanced Learning - Short Papers (6min presentations + 2min questions) | | | | | |
|--|---------|--|--------------|---|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 13:40—13:48 | 376 | A Blended Learning Approach to Experiential STEM Education for Young Learners | | | China |
| | | Ng | David C | Shantou University | |
| 13:50—13:58 | 410 | Quality Assurance of a Hybrid Online Course through Iterative Process Control | | | China |
| | | Wan | Han | Beihang University | |
| 14:00—14:08 | 426 | Teaching Students about Machine Learning through a Gamified Approach | | | China |
| | | Rattadilok | Prapa | University of Nottingham Ningbo China | |
| 14:10—14:18 | 459 | Towards Smart Educational Recommendations with Reinforcement Learning in Classroom | | | China |
| | | Hei | Xiaojun | Huazhong University of Science and Technology | |
| 14:20—14:28 | 330 | Blended Learning for the Indo-Pacific | | | Australia |
| | | Worthington | Tom | Australian National University | |
| 14:30—14:38 | 351 | The Use of Multiple-Choice Questions in 3rd-Year Electronic Engineering Assessment: A Case Study | | | UK |
| | | Bremner | Duncan James | University of Glasgow | |
| 14:40—14:48 | 433 | International Experiences and the Implications for the Success of Engineering Programs | | | Portugal |
| | | Vasconcelos | Rosa M. | University of Minho | |

| Kembla : XR & Immersive Learning Environments - Short Papers (6min presentations + 2min questions) | | | | | |
|--|---------|---|---------------|---------------------------------------|-------------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 13:40—13:48 | 133 | Designing Immersive Mobile Mixed Reality for Paramedic Education | | | New Zealand |
| | | Cochrane | Thomas Donald | Auckland University of Technology | |
| 13:50—13:58 | 180 | Embedding Mixed Reality in Humanitarian Logistics Gaming | | | Singapore |
| | | William | Linda | National University of Singapore | |
| 14:00—14:08 | 368 | A Novel Augmented Reality Guidance System for Future Informatization Experimental Teaching | | | China |
| | | Cao | Yanpeng | Southeast University | |
| 14:10—14:18 | 373 | An Experimental Research of Augmented Reality Technology From the Perspective of Mobile Learning | | | China |
| | | Cai | Wu | South China Normal University | |
| 14:20—14:28 | 451 | Design and Practice of Exploratory Virtual Experiment in Physics Discipline | | | China |
| | | Yu | Shufan | Central China Normal University | |
| 14:30—14:38 | 497 | Integrating an Intelligent Tutoring System with a Dialogue Manager for Procedural Training in a 2D/3D Virtual Environment | | | Ecuador |
| | | Paladines | José | Universidad Estatal del Sur de Manabí | |
| 14:40—14:48 | 480 | Examining the Impact of Pedagogical Agents on Students Learning Expirience in Virtual Worlds | | | Australia |
| | | Nikolic | Sasha | University of Wollongong | |

| Keira : Open, Flexible & Workplace Learning - Short Papers (6min presentations + 2min questions) | | | | | |
|--|---------|--|-----------|---------------------------------------|-------------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 13:40—13:48 | 147 | Characterizing Concept Conveying in Interactions between MOOC Students and Assistants | | | China |
| | | Wu | Xiao-Xiao | Central China Normal University | |
| 13:50—13:58 | 454 | Harnessing OERs in Hong Kong Technical and Vocational Education and Training (TVET) | | | China |
| | | Towey | Dave | University of Nottingham Ningbo China | |
| 14:00—14:08 | 471 | Open-Space Teaching and Learning in Tertiary Education: A Case Study | | | New Zealand |
| | | Ramezaniapour | Mohammad | Ara Institute of Canterbury | |
| 14:10—14:18 | 488 | EntreCompOnto: An Ontology for Semantic Representation of Entrepreneurship Competencies | | | Spain |
| | | Tovar | Edmundo | Universidad Politécnica de Madrid | |
| 14:20—14:28 | 463 | Surviving in the Gig Economy: Change of STEM Students’ Perceptions on the Generic Skills for the Workplace | | | Hong Kong |
| | | Mark | Kai Pan | The Hong Kong Polytechnic University | |

| Belmore : Special Session | | | | | |
|--------------------------------------|---|--|---------------|-----------------------------|-----------|
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 13:40—15:00 | 490 | Online Laboratories in Engineering Education: Innovation, Disruption, and Future Potential | | | Canada |
| | | Saliah-Hassane | Hamadou | TÉLUQ University | |
| 13:40—15:00 | 201 | PILAR: A Federation of VISIR Remote Laboratory Systems for Educational Open Activities | | | Spain |
| | | Loro | Felix Garcia | UNED, Spain | |
| Boardroom : Special Session (Part 2) | | | | | |
| Time | Sub. ID | Contribution Title Presenter Family Name / First Name / Presenter Affiliation | | | Country |
| 13:40—15:00 | 226 | Enhancing Class Interactivity— Teaching and Learning Professional Development Session (Part 2) | | | Australia |
| | | Dean | Bonnie Amelia | University of Wollongong | |
| Registration & Exhibit Area | | | | | |
| 15:00—15:30 | Afternoon Tea | | | Registration & Exhibit Area | |
| Grand Ballroom | | | | | |
| 15:34—16:20 | Keynote by Emeritus Professor James Trevelyan | | | Grand Ballroom | |
| 16:20—17:00 | Awards and Closing Ceremony | | | Grand Ballroom | |
| The Deck | | | | | |
| 17:00—18:00 | Post-Conference Drinks | | | The Deck | |

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