

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

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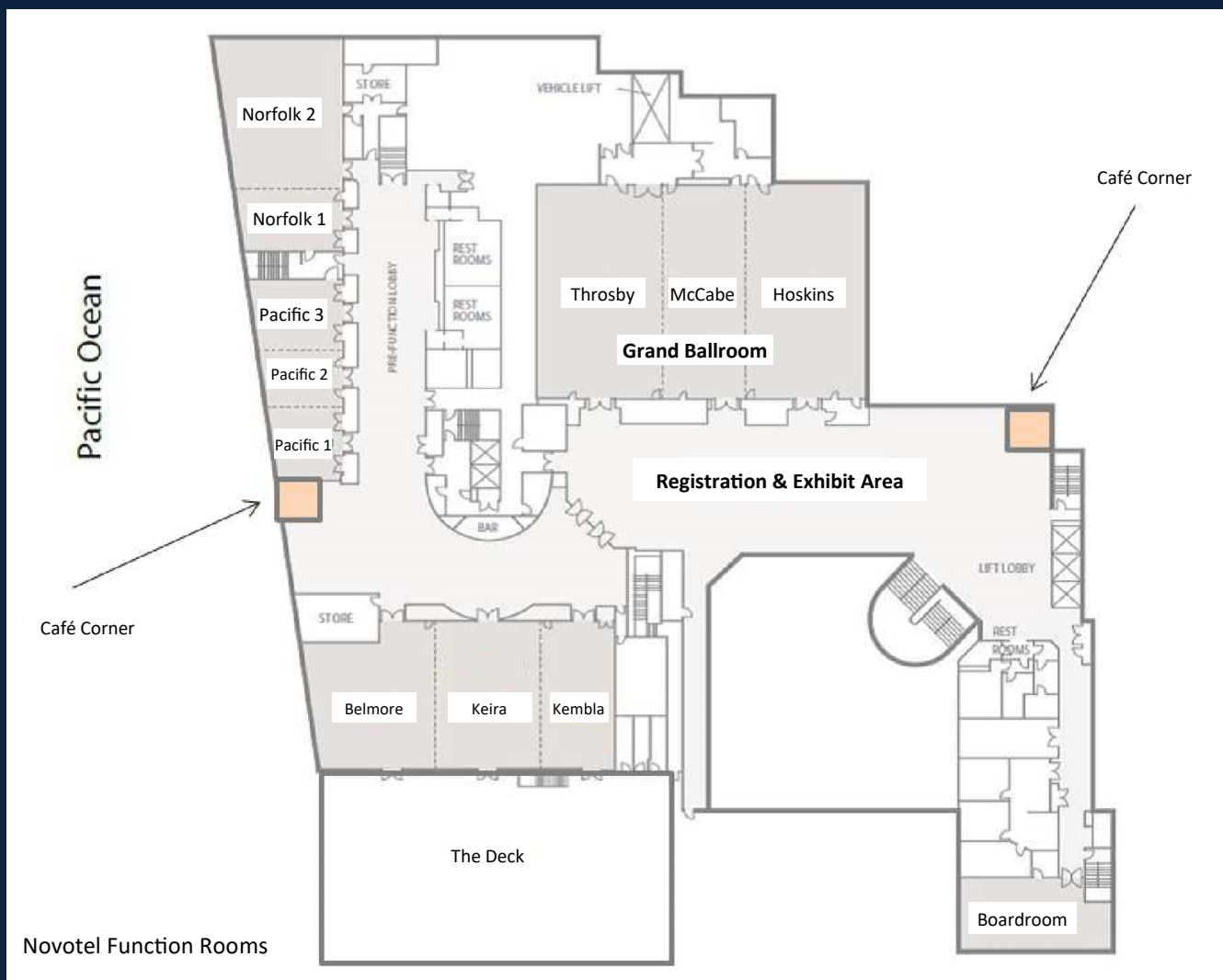
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IEEE TALE 2018

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			
		Binti Ismail	Zaleha	Universiti Teknologi Malaysia	Malaysia
11:15—11:28	105	Arduino as an Educational Tool to Introduce Robotics			
		Castro	Manuel	UNED	Spain
11:30—11:43	157	Computational Thinking and Coding Subject in Primary Schools: Methodological Approach Based on Alternative Cooperative and Individual Learning Cycles			
		Vlahu-Gjorgievska	Elena	University of Wollongong	Australia
11:45—11:58	318	Computational Thinking Education for Children: Algorithmic Thinking and Debugging			
		Wong	Gary K. W.	The University of Hong Kong	Hong Kong
12:00—12:13	337	Framework of Integrating Algebraic Thinking in Problem-Based Learning via Online Environment for School Students			
		Binti Ismail	Zaleha	Universiti Teknologi Malaysia	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			
		Liu	Enrui	Beijing Normal University	China
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			
		Zhai	Xuesong {Michael}	Beijing Normal University	China

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?			
		Belski	Iouri	RMIT	Australia
11:15—11:28	474	Teaching Reform of Engineering Graphics Education in Terms of Engineering Education Professional Certification in Guangzhou, China			
		Liu	Zhen	South China University of Technology	China
11:30—11:43	486	Learning Strategies to Optimize the Assimilation of ITC2 Competencies for Business Engineering Programs			
		Luna	Ana	Universidad del Pacifico	Peru
11:45—11:58	252	A Java Program for Automatic Team Allocation in Project-Based Coursework			
		Vial	Peter James	University of Wollongong	Australia
12:00—12:13	266	Higher Education Practices Accounting for Gender Differences in Technological Development as Part of SDGs Achievement			
		Hirata	Sadayo	Shibaura Institute of Technology	Japan

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			
		Townes	Megan	Microsoft	Australia
11:40—12:00	505	Enriching Education: Free Classroom Computing Education Resources Increase STEM Diversity			
		Haas	Damian	Oracle Academy	Australia

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 Tan Benjamin The University of Auckland	New Zealand
14:15—14:28	432	Make Your Own Homework: An Alternative Approach to Assignments in a Flipped Calculus Class Dawood Rahmad Universitas Syiah Kuala	Indonesia
14:30—14:43	461	Objective Assessment of Students' Generic Skills Yajima Kuniaki National Institute of Technology, Sendai College	Japan
14:45—14:58	306	An Inter-Disciplinary and University PBL Curriculum Using Robot Challenge Hisazumi Kenji Kyushu University	Japan
15:00—15:13	322	Exploring the Impact of In-Class Writing Exercises in an Engineering Course Nadeem Muhammad The University of Auckland	New Zealand
15:15—15:28	227	Creative Thinking of Engineering Undergraduates through Brainstorming during Mathematical Problem Solving Mohammad Yusof Yudariah Universiti Teknologi Malaysia	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 Kakeshita Tetsuro Saga University	Japan
14:15—14:28	347	Skill-Based Group Allocation of Students for Project-Based Learning Courses Using Genetic Algorithm: Weighted Penalty Model Nand Ravneil The University of the South Pacific	Fiji
14:30—14:43	365	Skill-Based Group Allocation of Students for Project-Based Learning Courses Using Genetic Algorithm: Weightless Penalty Model Nand Ravneil The University of the South Pacific	Fiji
14:45—14:58	384	Effectiveness of Physical Robot Versus Robot Simulator in Teaching Introductory Programming Sockalingam Nachamma Singapore University of Technology and Design	Singapore
15:00—15:13	130	SplashKit: A Development Framework for Motivating and Engaging Students in Introductory Programming Renzella Jake Deakin University	Australia
15:15—15:28	294	Improving outcomes for a Masters Capstone IT Project Izu Cruz The University of Adelaide	Australia

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 Kohda Naoya Tokushima University	Japan
14:15—14:28	446	A Gamification Approach For Serious Games Carron Thibault LIP6, UPMC	France
14:30—14:43	194	An Empirical Study on the Impact of Pre-recorded Lectures on Students' Performance in Integral Calculus Fernando Alexa Ray Ronsairo National University	Philippines
14:45—14:58	271	Enhanced Student Learning in Proteomics - An Interactive Tool Support for Teaching Workflows Wickramarachchi Anuradha Australian National University	Australia
15:00—15:13	288	Making the Most of Repetitive Mistakes: An Investigation into Heuristics for Selecting and Applying Feedback to Programming Coursework Howell Roger Aston University	UK
15:15—15:28	320	The Effectiveness of Integrating Geometer's Sketchpad Software in Phase-Based Geometric Learning Mohd Zaid Norasykin Universiti Teknologi Malaysia	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 Binti Ismail Zaleha Universiti Teknologi Malaysia	Malaysia
14:15—14:28	114	Relationships between Collaborative Problem Solving, Learning Performance and Learning Behavior in Science Education Chen Li Kyushu University	Japan
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 Maj Stanislaw Paul SPM Consulting	Australia
14:45—14:58	285	Playful STEAM Learning Using Robots Pandian Shunmugham R. Indian Institute of Information Technology, Design and Manufacturing	India
15:00—15:13	439	ICT Competency, Network Interaction, Internet Self-efficacy, and Mathematical Achievement: Direct and Mediating Effects Lu Chun Central China Normal University	China
15:15—15:28	277	Awakening the Interest of High School Pupils in Science, Technology, Engineering and Mathematics Studies and Careers through Scientific Projects Kazula Stefan Brandenburg University of Technology Cottbus-Senftenberg	Germany

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 Marks Stefan Auckland University of Technology	New Zealand
14:15—14:28	482	Immersive Learning Explored: Subjective and Objective Factors Influencing Learning Outcomes in Immersive Educational Virtual Environments Dengel Andreas University of Passau	Germany
14:30—14:43	313	Integration of Virtual Reality and Augmented Reality: Are They Worth the Effort in Education? Pita Zijad Kent Institute	Australia
14:45—14:58	353	Collaborative Virtual Reality Simulation for Multi-Professional Training in Emergency Management Communications Prasolova-Førland Ekaterina Norwegian University of Science and Technology	Norway
15:00—15:13	355	Developing Virtual Reality Open Educational Resources in a Sino-Foreign Higher Education Institution: Challenges and Strategies Towey Dave University of Nottingham Ningbo China	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 Ewais Ahmed Arab American University	Palestine

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 Liang Zilu The University of Tokyo	Japan
14:15—14:28	435	Tutoring Environment for Automata and the Users' Achievement Goal Orientations Tecson Cesar Ateneo de Manila University, Philippines	Philippines
14:30—14:43	445	The Impact of Crossword Puzzles on Students' Performance: Does Pre-exposure to Puzzles Matter? Lottering Roderick Tshwane University of Technology	South Africa

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 Kennedy Gregor The University of Melbourne Ben-Naim Dror Smart Sparrow Pardo Abelardo University of South Australia	USA Australia 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 Dai Bingtian Singapore Management University	Singapore
15:15—15:30	155	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
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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 Samuelson Dag A. H University of Southeastern Norway	Norway
16:10—16:18	316	Smart Grid Education: A Review of Global Course Offerings and the UNSW Sydney Approach Konstantinou Georgios University of New South Wales	Australia
16:20—16:28	300	From an International Classroom to a Distributed Work Environment: Student Perspectives on Global Software Engineering Vasilache Simona University of Tsukuba	Japan
16:30—16:38	264	Unplugged Game Play Motivates the Study of Engineering Ethics Skinner Iain University of New South Wales	Australia
16:40—16:48	148	Using Games for Learning to Improve Students Performance in Higher Education Velvin Jan University of Southeastern Norway	Norway
16:50—16:58	418	Assessment Map for Multidisciplinary Abilities for IoT System Development Education @based on a Robot Contest Watanabe Harumi Tokai University	Japan
17:00—17:08	241	Analysis of Engineering Students Academic Satisfaction in a Culturally Diverse University Hysaj Ajrina University of Wollongong in Dubai	UAE

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 Cao Trinh University of Wollongong	Australia
16:10—16:18	263	Using Data Mining and Machine Learning Approaches to Observe Technology-Enhanced Learning Howard Sarah Katherine University of Wollongong	Australia
16:20—16:28	415	Inferring the Climate in Classrooms from Audio and Video Recordings: A Machine Learning Approach Kashyap Mohan Nanyang Technological University	Singapore
16:30—16:38	416	Hybrid Fuzzy-Statistical System for Learning Analytics Sohail Shaleeza King's Own Institute	Australia
16:40—17:00	506	Turning STEM Grading Into Learning (Repeat) Singh Arjun Gradescope by Turnitin	Australia

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 Mohd Zaid Norasykin Universiti Teknologi Malaysia	Malaysia
16:10—16:18	150	Usability Testing of VLASTA: A Vocabulary Learning and Strategy Teaching App Mirzaei Siamak Flinders Univesity	Australia
16:20—16:28	225	An Innovative Hybrid Model for Developing Cross Domain ICT Talent in Digital Economy Wu Hsin-jung Institute for Information Industry	Taiwan
16:30—16:38	273	Improving Student's Engagement through the Use of Learning Modules, Instantaneous Feedback and Automated Marking Rattadilok Prapa University of Nottingham Ningbo China	China
16:40—16:53	329	Improving Feedback and Discussion in MOOC Peer Assessment using Introduced Peers - Full Paper (10min pres +3min) Gamage Dilrukshi University of Moratuwa	Sri Lanka

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? Jarrett Lorna Elaine University of Wollongong	Australia
16:10—16:18	390	Teaching Mathematics with Music: A Pilot Study Hamilton Tara Julia Macquarie University	Australia
16:20—16:28	424	Kids Making AI : Integrating Machine Learning, Gamification, and Social Context in STEM Education Pataranutaporn Pat King Mongkut's University of Technology Thonburi	Thailand
16:30—16:38	428	Hack Biodesign: An Integrative STEAM Education in Biology, Engineering and Design Subsoontorn Pakpoom Naresuan University	Thailand
16:40—16:48	477	Preparing Australian High School Learners with 21st Century Skills Shields Rebecca Central Queensland University	Australia
16:50—16:58	319	The Effectiveness of a Mentor-Mentee Program on Malaysian School Students' Interest in STEM Mohd Zaid Norasykin Universiti Teknologi Malaysia	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) Dean David TAFE NSW	Australia
16:20—16:28	421	Evaluating Alternative Input Techniques for Building and Construction VR Training Dean David TAFE NSW	Australia
16:30—16:38	292	Augmented Reality Experiences in Informal Education Petrovich Jr. Mark Eugene Drexel University	USA
16:40—16:48	458	Using Augmented Reality and Mobile Technologies to Train Automotive Technicians Rymer Maureen San Diego State University	USA
16:50—17:05	381	Annotating Animated AR Objects for Co-located Learning (Full paper 10min presentation + 3min questions) Reinoso Martin The University of Melbourne	Australia

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 Kuttner Filip 3DS	Australia
16:40—17:20	475	Scaling Automated Scoring: Addressing Practical and Conceptual Challenges Lazendic Goran Australian Curriculum, Assessment and Reporting Authority	Australia

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			
		Venkatarayalu	Neelakantam	Singapore Institute of Technology	Singapore
9:45—9:58		Pedagogy for the Practising Engineer: A Closed Loop Feedback Control Analogy to Teaching and Learning			
		McLauchlan	Craig	University of Wollongong	Australia
10:00—10:13		Understanding Common Student Mistakes in the Remote Laboratory NetLab			
		Considine	Hugh	University of South Australia	Australia
10:15—10:28		Smart Learning in the Pacific: Design of New Pedagogical Tools			
		Nand	Ravneil	The University of the South Pacific	Fiji
10:30—10:43		Evaluation of Automatic Collaborative Learning Process Coding Using Deep Learning Methods			
		Shibata	Chihiro	Tokyo University of Technology	Japan

Keira : 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			
		Sabharwal	Renu	Central Queensland University	Australia
9:45—9:58	293	Student Collegiality in Interdisciplinary Global Contexts			
		Mitric	Damir	La Trobe University	Australia
10:00—10:13	405	An Intervention Study on the Professional Adaptability of Students in Navigation Course of Educational Technology			
		Wu	Yong he	East China Normal University	China
10:15—10:28	348	Transnational Interactive Blended Learning: A Learning Community of Practice			
		Wang	Minjuan	San Diego State University	USA

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			
		Dongas	Robert	The University of Sydney	Australia
10:10—10:30	506	Festo/LabVolt Electromechanical Systems – A Practical Demonstration			
		Lewis	Martin	Duff and Macintosh-Festo LabVolt	Australia

Boardroom : 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?			
		Hämäläinen	Raimo Pertti	Aalto University	Finland
11:30—11:38	182	Academic Expectations for Engineering Freshmen: Gender Differences			
		Vasconcelos	Rosa M.	University of Minho	Portugal
11:40—11:48	370	Active Interdisciplinary Learning in a Design Thinking Course: Going to Class for a Reason			
		Gillet	Denis	cole Polytechnique Fédérale de Lausanne	Switzerland
11:50—11:58	168	Facilitating the Development of Humor in Electrical Engineering Students			
		O'Shea	Peter	The University of Queensland	Australia
12:00—12:08	398	Context and Input Evaluations of Physical Fitness Training Programs in Maritime Schools			
		Bueta	Rosalin Duller	Maritime Academy of Asia and the Pacific	Philippines
12:10—12:30	504	The Hands-on Engineer: Helping Students Master the Spectrum Analyzer			
		Tan	Tristen	Rohde & Schwarz	Australia

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 Zhao Liang Shenyang Aerospace University	China
11:30—11:38	309	Active Learning to Develop Key Research Skills in Master's Level Computer Science Coursework Carlson Trevor E. National University of Singapore	Singapore
11:40—11:48	401	Teaching Key Machine Learning Principles Using Anti-Learning Datasets Roadknight Chris University of Nottingham Ningbo China	China
11:50—11:58	430	A Proposal for Integrating Gamification into Task-Oriented Portfolio Assessment Renzella Jake Deakin University	Australia

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 Jackson Timothy Michael University of Wollongong	Australia
11:30—11:38	343	Adopting Good-Learners' Paths in an Intelligent Tutoring System Meliana Selly Telkom University	Indonesia
11:40—11:48	160	Smart Phone Endowed Intelligent Teaching for University General Education Curriculum in China Liu Zhen South China University of Technology	China
11:50—11:58	186	Using Trello to Support Agile and Lean Learning with Scrum and Kanban in Teacher Professional Development Inkila Milla The Mind Lab	New Zealand
12:00—12:08	149	TSP: Truthful Grading-Based Strategyproof Peer Selection for MOOCs Wang Yufeng Nanjing University of Posts and Telecommunications	China
12:10—12:30	503	Enhancing Digital Learning in Engineering, Solved Sofios Haritos Smart Sparrow	Australia

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 Im Siu Wo Tarloff City University of Hong Kong	Hong Kong
11:30—11:38	249	AHA: ADHD Augmented (Learning Environment) Hasegawa Tomonori University College Dublin	Ireland
11:40—11:48	258	Extending a Virtual Reality Nasal Cavity Education Tool with Volume Rendering Marks Stefan Auckland University of Technology	New Zealand
11:50—11:58	362	Why Don't You Evacuate Speedily? Augmented Reality-Based Evacuee Visualisation in ICT-based Evacuation Drill Mitsuahara Hiroyuki Tokushima University	Japan
12:00—12:08	452	An Evaluation of Nursing Student Motivation to Learn through Holographic Mixed Reality Simulation Hauze Sean San Diego State University	USA
12:10—12:18	481	Seeking the Treasures of Theoretical Computer Science Education: Towards Educational Virtual Reality for the Visualization of Finite State Machines Dengel Andreas University of Passau	Germany
12:20—12:33	327	The Potential of Augmented Reality for Computer Science Education (Full paper 10min presentation + 3min questions) Resnyansky Dmitry University of South Australia	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 Dodd Brenton Solvia (Dassault Systèmes Business Solutions)	Australia

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 Devitt Joshua Charles Sturt University	Australia

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)			
		Dean	Bonnie Amelia	University of Wollongong	Australia

Windjammers Restaurant

12:30—13:35	Lunch	Windjammers Restaurant		
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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			
		Rich	Beatrice M.	Brandenburg University of Technology	Germany
13:50—13:58	308	Preparing STEM Students for Leading Positions through Supervising Younger Students			
		Worlitz	Jane	Brandenburg University of Technology	Germany
14:00—14:08	340	'Learning 4.0': A Conceptual Discussion			
		Klopp	Marco	Aschaffenburg University of Applied Sciences	Germany
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			
		Murai	Koji	Tokyo University of Marine Science and Technology	Japan
14:20—14:28	400	The Impact of Final Term Exam Exemption Policy: Case Study at MAAP			
		David	Lawrence C. G.	Maritime Academy of Asia and the Pacific	Philippines
14:30—14:38	377	A Preliminary Study of the Implementation of Concept Maps for Teaching and Learning Strategies in a Power Engineering Course			
		Aziz	Anees Binti Abdul	Universiti Teknologi MARA	Malaysia
14:40—14:48	392	Empowering Weak Engineering Students through My UiTM Engineer Program and Understanding the Characteristics of Weak Students			
		Hussin	Hanim	Universiti Teknologi MARA	Malaysia
14:50—14:58	179	Multidisciplinary Student Performance-Based Teaching Design for Engineering Design via a Commercial Case			
		Liu	Zhen	South China University of Technology	China

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			
		Nikolic	Sasha	University of Wollongong	Australia
13:50—13:58	143	Towards a Holistic Approach to Improve the Retention Rate of Freshmen in Engineering			
		Abid	Muhammad Irfan	Riphah International University, Faisalabad	Pakistan
14:00—14:08	278	Readiness of Japanese Elementary School Teachers to Begin Computer-Programming Education			
		Ohashi	Yutaro	Nippon Institute of Technology	Japan
14:10—14:18	397	The Beneficial Effects of an Autonomously Operated Engineering Education Outreach Program: A Case Study of the Servant Leadership Program			
		Jung	Eunju	Korea University	South Korea

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 Experience 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 Saliah-Hassane Hamadou TÉLUQ University	Canada
13:40—15:00	201	PILAR: A Federation of VISIR Remote Laboratory Systems for Educational Open Activities Loro Felix Garcia UNED, Spain	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) Dean Bonnie Amelia University of Wollongong	Australia

Registration & Exhibit Area

15:00—15:30	Afternoon Tea	Registration & Exhibit Area
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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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