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

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IEEE TALE 2018

Engineering Next-Generation Learning

Wollongong, Australia
4–7 December 2018

Conference Program

Novotel Function Rooms
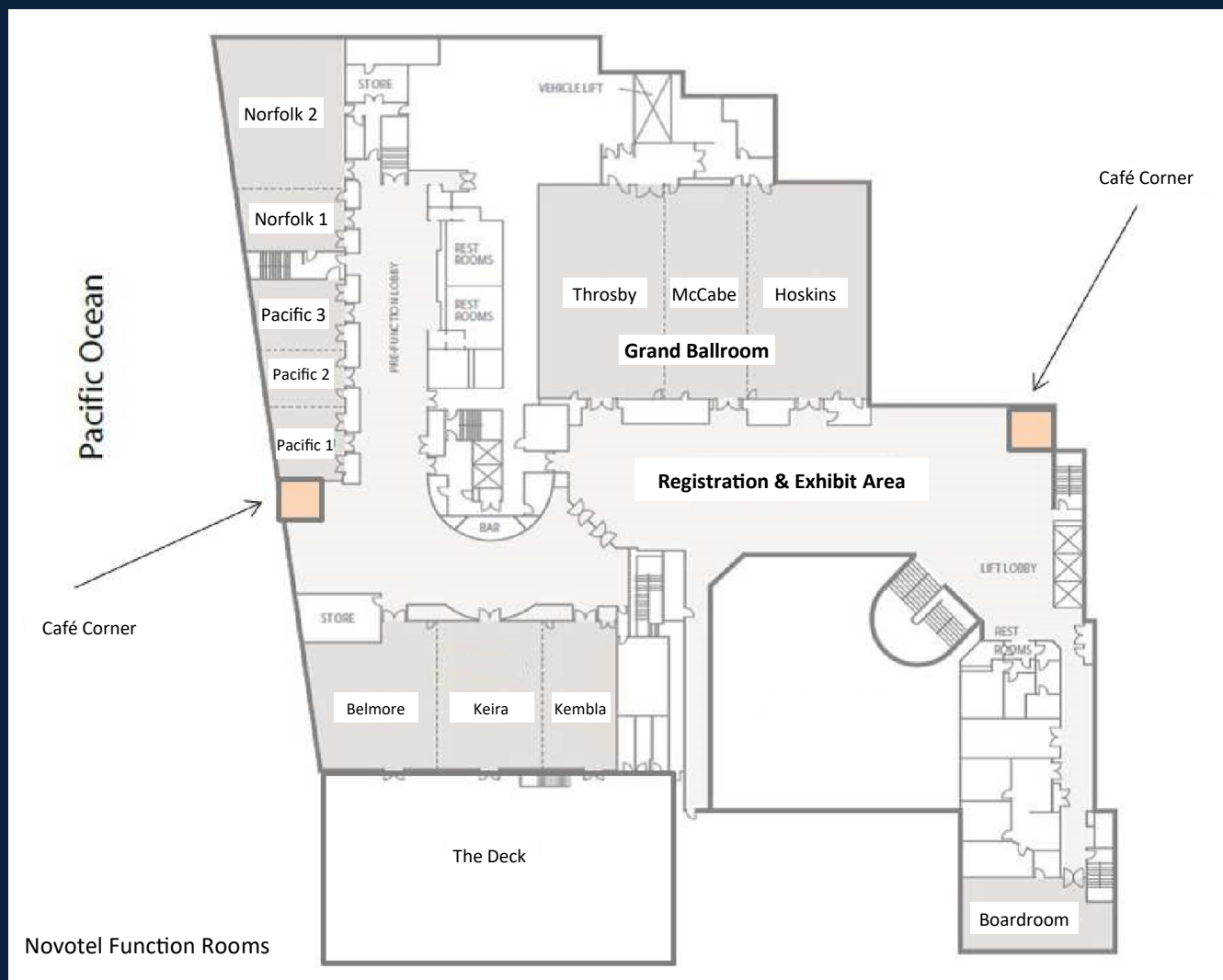
Tuesday, 4 Dec 2018

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 Pacífico	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	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			
		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**

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			
		Samuelsen	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			
		Mitsuhara	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

Time				
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				
			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			
		Ng	David C	Shantou University	China
13:50—13:58	410	Quality Assurance of a Hybrid Online Course through Iterative Process Control			
		Wan	Han	Beihang University	China
14:00—14:08	426	Teaching Students about Machine Learning through a Gamified Approach			
		Rattadilok	Prapa	University of Nottingham Ningbo China	China
14:10—14:18	459	Towards Smart Educational Recommendations with Reinforcement Learning in Classroom			
		Hei	Xiaojun	Huazhong University of Science and Technology	China
14:20—14:28	330	Blended Learning for the Indo-Pacific			
		Worthington	Tom	Australian National University	Australia
14:30—14:38	351	The Use of Multiple-Choice Questions in 3rd-Year Electronic Engineering Assessment: A Case Study			
		Bremner	Duncan James	University of Glasgow	UK
14:40—14:48	433	International Experiences and the Implications for the Success of Engineering Programs			
		Vasconcelos	Rosa M.	University of Minho	Portugal

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			
		Cochrane	Thomas Donald	Auckland University of Technology	New Zealand
13:50—13:58	180	Embedding Mixed Reality in Humanitarian Logistics Gaming			
		William	Linda	National University of Singapore	Singapore
14:00—14:08	368	A Novel Augmented Reality Guidance System for Future Informatization Experimental Teaching			
		Cao	Yanpeng	Southeast University	China
14:10—14:18	373	An Experimental Research of Augmented Reality Technology From the Perspective of Mobile Learning			
		Cai	Wu	South China Normal University	China
14:20—14:28	451	Design and Practice of Exploratory Virtual Experiment in Physics Discipline			
		Yu	Shufan	Central China Normal University	China
14:30—14:38	497	Integrating an Intelligent Tutoring System with a Dialogue Manager for Procedural Training in a 2D/3D Virtual Environment			
		Paladines	José	Universidad Estatal del Sur de Manabí	Ecuador
14:40—14:48	480	Examining the Impact of Pedagogical Agents on Students Learning Expirience in Virtual Worlds			
		Nikolic	Sasha	University of Wollongong	Australia

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			
		Wu	Xiao-Xiao	Central China Normal University	China
13:50—13:58	454	Harnessing OERs in Hong Kong Technical and Vocational Education and Training (TVET)			
		Towey	Dave	University of Nottingham Ningbo China	China
14:00—14:08	471	Open-Space Teaching and Learning in Tertiary Education: A Case Study			
		Ramezanianpour	Mohammad	Ara Institute of Canterbury	New Zealand
14:10—14:18	488	EntreCompOnto: An Ontology for Semantic Representation of Entrepreneurship Competencies			
		Tovar	Edmundo	Universidad Politécnica de Madrid	Spain
14:20—14:28	463	Surviving in the Gig Economy: Change of STEM Students' Perceptions on the Generic Skills for the Workplace			
		Mark	Kai Pan	The Hong Kong Polytechnic University	Hong Kong

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**

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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