

STEM in Education Conference 2018 - Draft Program

TUESDAY 20 NOVEMBER 2018

4:00pm - 6:00pm Welcome Reception
The Cube, Level 4, P Block, QUT Gardens Point Campus

WEDNESDAY 21 NOVEMBER 2018

7:30am Registration Opens

8:15am - 9:00am Conference Welcome and Opening
Room Z411, Z Block, QUT Gardens Point Campus

9:00am - 10:00am Keynote Presentation | Room Z411

The Winning 2030 CV
Dr Alan Finkel AO, Australia's Chief Scientist
Chair: Terry Lyons

10:00am - 10:30am Morning Tea

Concurrent Sessions 1

	Session 1.1 room P514	Session 1.2 room P512	Session 1.3 room P419	Session 1.4 room P421	Session 1.5 room P505	Session 1.6 room P504	Session 1.7 room P413	Session 1.8 room P413A	Session 1.9 room O308	Session 1.10 room O314
10:30am - 12:30pm	STEM Teacher Education and Professional Learning Chair: Vinesh Chandra	Integrated pedagogical approaches to STEM Chair: Dann Mallet	Research-based practices for engaging students in STEM learning Chair: Bronwyn Ewing	Assessment and evaluation of STEM outcomes Chair: Judy Anderson	Workshop Stream Chair: Kenric Kesler	Workshop Stream Chair: Andy Yeh	Workshop Stream Chair: Diana Kleine	Workshop Stream Chair: Hui-hui Wang	Innovative Showcase Stream Chair: Premnadh Kurup	Symposia Stream Chair: Peta White
10:30am - 11:00am	Creating visual representations of radiation machines: Linking education to industry Vinesh Chandra, Queensland University of Technology, Australia	Project-based learning (PBL) in practise: Active teachers' views of its' advantages and challenges Maija Aksela, University of Helsinki, Finland	Confronting the challenge: Education success for vulnerable and disadvantaged young people in youth detention Bronwyn Ewing, Queensland University of Technology, Australia	Primary school students' responses to an integrated STEM project: Early results from a large teacher professional learning program Judy Anderson, University of Sydney, Australia	Leadership team driven school systemic change, the creation of STEM focused schools Kenric Kesler, Northern Arizona University & Mia Dubosarsky, Worcester Polytechnic Institute, United States of America	VRMATH2: an online community for coding 3D virtual worlds Andy Yeh, Queensland University of Technology, Australia	CORALWATCH: Real-life coral reef data as a resource in your classroom Adam Richmond, Clontarf Beach State High School & Paddy Macleod, Kirwan State High School, Australia	A non-formal integrated STEM learning experience through native solitary bee for 4th to 6th grade students Hui-hui Wang, Purdue University, United States of America	Interdisciplinary Integrated STEM / STEAM research and collaborations at La Trobe University Premnadh Kurup, LaTrobe University, Australia	Keeping it real: The role of partnerships in promoting quality STEM education practices Linda Pfeiffer, Central Queensland University, Australia
11:00am - 11:30am	A novel graphing task for exploring prospective teachers' mathematical identities Janette Bobis, University of Sydney, Australia	Predicting performance in electrochemistry using concept mapping instruction Catherine Aurah, Masinde Muliro University of Science and Technology, Kenya	The effect of graphical and textual programming with microbit on middle school student's CT skills Qian Fu, Beijing Normal University, China	Rules of item designing for computer-based problem solving assessment Jingxue Chen, Beijing Normal University, China						
11:30am - 12:00pm	Transforming pedagogy in science and mathematics in Qatar: Issues and perspectives Carol Murphy, University of Tasmania, Australia	Participation in small group integrated STEM activities: A gender-focused case study Jeanna Wieselmann, University of Minnesota, United States of America	Using structural inquiry-based assessments in a quality assurance course Murray Black, Auckland University of Technology, New Zealand	Promoting teaching and learning of strategic calculation and thinking through diagnostic assessments Mellony Graven, University of Queensland, Australia						
12:00pm - 12:30pm	Teaching coding and computational thinking in the early years of school Pauline Neill, Queensland University of Technology, Australia	Bringing STEM conceptions to life through integrated STEM curriculum implementation: A multiple case study in elementary science classrooms Elizabeth Ring-Whalen, St. Catherine University, United States of America	Secondary school students' engagement in STEM education in a gamification environment Tsui Yan, University of Hong Kong, Hong Kong	A study on augmented reality based comprehensible visualization for developing students' friction concept Yu Liu, Beijing Institute of Technology, China					Developing sequential thinking in prep students Gayle Stone, Rangeville State School, Australia	School-Industry-Community partnerships in STEM Peta White, Deakin University, Australia

Lunch										
Concurrent Sessions 2										
	Session 2.1	Session 2.2	Session 2.3	Session 2.4	Session 2.5	Session 2.6	Session 2.7	Session 2.8	Session 2.9	Session 2.10
	room P514	room P512	room P419	room P421	room P505	room P504	room P413	room P413A	room O308	room O314
12:30pm - 1:30pm										
1:30pm - 3:00pm	STEM Teacher Education and Professional Learning	Exploring STEM Practices	Showcasing effective STEM education practices	Showcasing effective STEM education practices / Policy and leadership for improving STEM	Workshop Stream	Workshop Stream	Workshop Stream	Innovative Showcase Stream	Innovative Showcase Stream	Innovative Showcase Stream
	Chair: David Nutchey	Chair: Christina Chalmers	Chair: Chrystal Whiteford	Chair: Jennifer Hall	Chair: Mark Lockett	Chair: Jim Lowe	Chair: Jan Cavanagh	Chair: Lyn English	Chair: Joanne Blannin	Chair: Valerie Ridley
1:30pm - 2:00pm	Adopting a models and modelling perspective to re-conceptualise mathematics pre-service teacher education David Nutchey, Queensland University of Technology, Australia	Robotics and computational thinking for primary schools Christina Chalmers, Queensland University of Technology, Australia	Achieving authentic STEMEd through community and industry partnerships Ben Jenkinson, Chisholm Institute, Australia	Policy implications of the national numeracy test for initial teacher education: Students' experiences and perceptions Jennifer Hall, Monash University, Australia						
2:00pm - 2:30pm	Dancing with mathematics and social justice: Learning to create mathematics problems Cynthia Nicol & Kwesi Yaro, University of British Columbia, Canada	Exploring STEM content and practices by building rubber band musical instruments in middle school Matthew Mueller, Tufts University, United States of America	An exploration of the process of becoming a STEM middle school Gillian Roehrig, University of Minnesota, United States of America	The design and development of a mobile phone application for STEM based on a Smog-themed Educational Game Yimeng Xu, Beijing Normal University, China	LEGO Education: WeDo2.0 and Scratch3.0 Mark Lockett, LEGO Education, Australia	Developing deep mathematical understanding in a STEM context Jim Lowe, Queensland University of Technology, Australia	Why go round in circles if you can cut straight across? YuMi Deadly Maths beats rote learning! Jan Cavanagh, QUT YuMi Deadly Centre, Australia	Engineering education in the primary school Lyn English & Donna King, Queensland University of Technology, Australia	Mission to Mars: Integrated STEM learning through drones, robots and coding Joanne Blannin, University of Melbourne, Australia	Industry-school collaboration in remote and regional schools: Innovative and scalable Valerie Ridley, Beacon Foundation, Australia
2:30pm - 3:00pm	Effective teacher professional development in the STEM fields Richelle Marynowski, University of Lethbridge, Canada	Integrating STEM and the mathematics enrichment program: A teacher's story Ida Ah Chee Mok & Leo Po Wa Sung, University of Hong Kong, Hong Kong	An exploration of STEM activity of constructing digestive system model in PBL environment Shuran Zhang, Beijing Normal University, China	Facilitating a generalised perspective of problem solving in a STEM environment Will Windsor, Coorparoo State School, Australia						
3:00pm - 3:30pm	Afternoon Tea									

Concurrent Sessions 3											
	Session 3.1 room P514	Session 3.2 room P512	Session 3.3 room P419	Session 3.4 room P421	Session 3.5 room P505	Session 3.6 room P504	Session 3.7 room P413	Session 3.8 room P413A	Session 3.9 room O308	Session 3.10 room O314	
3:30pm - 5:30pm	STEM Teacher Education and Professional Learning	Integrated pedagogical approaches to STEM	Digital technologies / learning spaces facilitating STEM learning	Creativity in STEM education	Workshop Stream	Innovative Showcase Stream	Workshop Stream	Workshop Stream	Symposia Stream	Symposia Stream	
	Chair: Reece Mills	Chair: Kim Koh	Chair: Dylan Paré	Chair: Marja Miller	Chair: Tom Walsh	Chair: Brett Lewis	Chair: Jackie Bondell	Chair: Shelley Cross	Chair: Kathy Mackey	Chair: Geoff Woolcott	
3:30pm - 4:00pm	Perceptions and practices of mathematics teachers' de-privatised practices Parmeshwar Mohan, University of Tasmania, Australia	Polya's problem solving cycle as a boundary object for the STEM disciplines' inquiry processes Allen Leung, Hong Kong Baptist University, Hong Kong	Using digital tools for feedback in formative assessment of STEM learning Simon Corvan, All Hallows' School, Michelle Mukherjee & Donna King, Queensland University of Technology	STEAM movement in Ontario, Canada: A case study on the curriculum and instructions models of four STEAM programs Marja Miller, Western University, Canada	Exploring computer science using logo programming code to create microworlds Tom Walsh, Iowa State University, United States of America	Embedding citizen science projects into schools: How we can encourage evidence based decision making in future generations through real world scientific applications Brett Lewis, Queensland University of Technology, Australia	Project Design for the STEM Classroom: A VR Case Study Jackie Bondell, ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav), Australia	A Model for STEM: Creating a Pet Car Alarm Shelley Cross, St Hilda's School, Australia	Innovative practices in State Schooling: Engaging diverse audiences in STEM beyond the classroom Kathy Mackey, Sandra Davey, Glenn Beaumont & Hind Hegazy, Queensland Academics, Australia	Examining pre-service STEM teacher reflections using a non-judgemental and affect-based critical movement protocol Geoff Woolcott, Southern Cross University, Australia	
4:00pm - 4:30pm	Investigation of relationships between school support, pedagogical knowledge, and STEM teaching self-efficacy primary teachers in China Xu Chang, Beijing Normal University, China	Design of authentic assessment to enrich mathematics learning experiences for girls: An integrated patchwork approach Kim Koh, University of Calgary, Canada	Queering virtual reality: a preliminary design study Dylan Paré, University of Calgary, Canada	Challenges of implementing design thinking process in the primary classroom Sarah Matthews, Marie Boden & Christina Mitchell, University of Queensland/St Joseph's Primary School, Australia					Engaging high school students with gamified maths apps Yuji Takahashi, Math Mate, Australia	STEM Practices in Early Childhood Settings Mia Christensen, Queensland University of Technology, Australia	On the Oakleigh STEAM Train Nicola Flanagan & Chantelle Sansness, Oakleigh State School, Australia
4:30pm - 5:00pm	Teachers' professional development through scientist-teacher-students partnerships (STSP) Rohaida Mohd Saat, University of Malaya, Malaysia	Applying visualization technology to STEM educational activities: A case design for science and technology museums Zhuo Wang, Beijing Normal University, China	Using scratch to create picture stories: A STEM education perspective Xiaonan Dong, Beijing Normal University, China	A STEM curriculum design that combines virtual and realistic situations Xuanchen Zhou, Beijing Normal University, China							
5:00pm - 5:30pm	Shifting and shaping student STEM beliefs: Learning from a transdisciplinary robot project Karen Skilling, King's College London, United Kingdom	Integrating computational thinking in STEM education through project-based learning Dazhi Yang, Boise State University, United States of America	Interdisciplinary knowledge integration method and digital environment constitution in STEM Education Wei Wang, Northeast Normal University, China	E rere te manu: Lost in Transmission Te Hurihuri Karaka-Clarke, University of Canterbury, New Zealand							
5:30pm	End of Day One										

THURSDAY 22 NOVEMBER 2018

8:00am	Registration Opens									
	Keynote Presentation Room Z411									
9:00am - 10:00am	<p align="center">STEM for Space Junkies Fred Watson, Astronomer-at-Large, Commonwealth Department of Industry, Innovation and Science Chair: Bronwyn Ewing</p>									
10:00am - 10:30am	Morning Tea									
	Concurrent Sessions 4									
	Session 4.1 room P514	Session 4.2 room P512	Session 4.3 room P419	Session 4.4 room P421	Session 4.5 room P505	Session 4.6 room P504	Session 4.7 room P413	Session 4.8 room P413A	Session 4.9 room O308	Session 4.10 room O314
10:30am - 12:00pm	STEM Teacher Education and Professional Learning	Research-based practices for engaging students in STEM learning	Assessment and evaluation of STEM outcomes	Creativity in STEM education	Workshop Stream	Workshop Stream	Workshop Stream	Innovative Showcase Stream	Workshop Stream	Workshop Stream
	Chair: James Davis	Chair: Kar-Tin Lee	Chair: Leo Stocco	Chair: Beaumie Kim	Chair: Mark Lockett	Chair: Adam Juang	Chair: Peter Fox	Chair: Marina Milner-Bolotin	Chair: Rebecca McLucas	Chair: Peter Pentland
10:30am - 11:00am	<p>Complexity and emotion: Student experiences of an integrated STEM investigation James Davis, Queensland University of Technology, Australia</p>	<p>Science learning with magic tricks: An investigation into motivation in science learning of secondary school age learners in out-of-class contexts Xinyue Li, University of Cambridge, United Kingdom</p>	<p>MARK-IT: A software tool for high-enrolment project based learning Leo Stocco, University of British Columbia, Canada</p>	<p>How Inversé merged with Go: Redesigning games as mathematical and cultural practices Beaumie Kim, University of Calgary, Canada</p>						
11:00am - 11:30am	<p>Pre-service teachers' numeracy views and capabilities: A comparison of students with STEM and non-STEM specialisms Jennifer Hall, Monash University, Australia</p>	<p>A hybrid program for STEM education in higher education: Its practice in first-year experience program Tomotaka Kuroda, Shizuoka University, Japan</p>	<p>Rethink assessment of integrated STEM education from learners' perspective: A systematic review Anqi Zhang, Beijing Normal University, China</p>	<p>STEM teachers explain related curriculum concepts using girl child home STEM experiences and knowledge Festus Kelonye, Kibabii University, Kenya</p>	<p>LEGO Education Wedo2.0 Robotics Workshop for Primary and Middle School Mark Lockett, LEGO Education, Australia</p>	<p>STEM Coding - integrating secondary school STEM subjects through coding activities Adam Juang, St Patrick's College Townsville, Australia</p>	<p>Autonomous Vehicles - Driving Mathematical Thinking Peter Fox, Texas Instruments, Australia</p>	<p>Innovative technology use in STEM teacher education Marina Milner-Bolotin, University of British Columbia, Canada</p>	<p>Using multi-sensory teaching strategies in special education to develop maths understanding in students with multiple disabilities Rebecca McLucas & Atefeh Bigdeli, Pine Rivers Special School, Australia</p>	<p>Using the relevant context of Sustainable Housing to teach STEM subjects Peter Pentland, Australian Academy of Technology and Engineering, Australia</p>
11:30am - 12:00pm	<p>Embedding collaborative enhancement and reflection in science and mathematics initial teacher education programs Robert Whannell, University of New England, Australia</p>	<p>Students' perception of learning STEM-related subjects through scientist-teacher-student partnership (STSP) Hidayah Mohd Fadzil, University of Malaya, Malaysia</p>	<p>Augmented intelligence and the future of STEM assessment development Donna Matovinovic, ACT, United States of America</p>	<p>Year 4 students' emergent representations of science and mathematics concepts Jennifer Way, University of Sydney, Australia</p>						
12:00pm - 1:00pm	Lunch									
	Keynote Presentation Room Z411									
1:00pm - 2:00pm	<p align="center">Disruption and learning innovation across STEM Lyn English, Professor of STEM in Education, Queensland University of Technology Chair: Chris Blundell</p>									

2:00pm - 2:10pm	Move to Concurrent Rooms									
2:10pm - 3:40pm	Concurrent Sessions 5									
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	STEM Teacher Education and Professional Learning	Research-based practices for engaging students in STEM learning	Perspectives on STEM in Education	Workshop Stream	Workshop Stream	Workshop Stream	Workshop Stream	Workshop Stream	Innovative Showcase Stream	Workshop Stream
	Chair: Bruce White	Chair: Chris Blundell	Chair: Daniel Lovatt	Chair: Audrey Hearn	Chair: Mark Lockett	Chair: Matthew Mueller	Chair: Peter Riley	Chair: Les Dawes	Chair: Dana Burfeind	Chair: Rachel Bilsborough
2:10pm - 2:40pm	Developing pre-service teachers' understandings of STEM through an industry experience Bruce White, University of South Australia, Australia	Community-informed STEM programming: Prospects and pressures from a STEM club case study Lydia E Carol-Ann Burke, University of Toronto, Canada	Teaching and learning STEM education in early childhood settings: A model of analysis Daniel Lovatt, University of Auckland, New Zealand	Robogems - growing girls in STEM through robotics Audrey Hearn & Simon Richardson, Chancellor State College, Australia	LEGO Education EV3 Robotics Workshop for Middle and High School Teachers Mark Lockett, LEGO Education, Australia	LEGO Education: Exploring STEM and Music with Rubber Bands and LEGO Matthew Mueller, Tufts University, Australia	Emerging methods in school STEM investigations: Mobile technologies and micro-sensors Peter Riley, Kitsune, Australia	Co-design of curriculum as professional development: A hands-on experience Les Dawes & Amanda Robertson, Queensland University of Technology & Matthew Reid, Indooroopilly State High School, Australia	Kitchen Chemistry - Taking the cookbook out of the undergraduate laboratory experience Dana Burfeind, Queensland University of Technology, Australia	STEM for schools: A unique approach to engaging school students and their teachers that goes beyond the classroom Rachel Bilsborough, Patricia Hosking & Simone Long, Queensland University of Technology, Australia
2:40pm - 3:10pm	A STEM methods course for Thai preservice teachers Pattamaporn Pimthong, Curtin University, Australia	Developing an abstract understanding of unit iteration through problem solving Timothy Lehmann, Queensland University of Technology, Australia	Hotspots in research on STEM education in China Yuan Gao, Victoria University, Australia							
3:10pm - 3:40pm	Collaborative mentoring to develop primary-school science teachers' efficacy Grant Smith, Education Queensland, Australia	Impact of spacing intervals of class periods on conceptual understanding of elementary students in scientific inquiry activities: Continuous versus discrete Xiaojing Wang, Beijing Normal University, China	Decolonizing complexity education: preliminary perspectives Dylan Paré, University of Calgary, Canada							
3:40pm - 4:10pm	Afternoon Tea									
4:10pm - 5:00pm	Poster Session - The Cube, Level 4, P Block									
5:00pm - 6:00pm	Travel Time									
6:00pm - 10:00pm	Conference Dinner									

FRIDAY 23 NOVEMBER 2018

8:30am																																								
Registration Opens																																								
Special interest Groups (SIGs)																																								
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9:30am - 10:30am																																								
<p align="center">Keynote Presentation Room Z411</p> <p align="center">Thriving in the Digital Age. The future of learning.</p> <p align="center">Marek Kowalkiewicz, Professor and PwC Chair in Digital Economy Management, Queensland University of Technology</p> <p align="center">Chair: James Davis</p>																																								
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11:00am - 11:30am	<p>Children's mathematics learning: Parental involvement in a rural community in West Africa Kwesi Yaro, University of British Columbia, Canada</p>	<p>The disciplinary nature of STEM education: A suggested pedagogical approach Gillian Kidman, Monash University, Australia</p>	<p>Teachers new to teaching across the STEM subjects: How to create cultures of support, innovation and collaboration Linda Hobbs, Deakin University, Australia</p>	<p>Humanoid robots: Programming at school Christina Chalmers, Queensland University of Technology, Australia</p>					<p>Teaching and learning in mathematics: Cross cultural perspectives of teaching strategies that support learners Bronwyn Ewing, Queensland University of Technology, Mary O'Connor & Sandra Grandinetti, Julian Curtiss School Greenwich Connecticut</p>																															
11:30am - 12:00pm	<p>Exploring a STEM education pedagogy: Teachers' perceptions of the benefits of an extended integrative STEM learning program Noleine Fitzallen, University of Tasmania, Australia</p>	<p>Broadening the conceptualization of attitude and persistence towards STEM through an integrated and structured approach: Instrument development and validation study Cijj Elizabeth Sunny, Murdoch University, Australia</p>	<p>Research on 3D printed creations through course design for the democratisation of production: Interdisciplinary opportunities for STEAM education Ding Zhou, Queensland University of Technology, Australia</p>	<p>Possibilities of the Parabola: STEAM with a capital P Melissa Silk, University of Technology Sydney, Australia</p>	<p>Water in the 21st Century: experiencing modules for student-centred STEM practices from the iSME Project (STELR) Simone Blom, Southern Cross University, Australia</p>	<p>Learn vectors with TI Innovator Rover and use the TI Innovator hub in the Physics classroom to improve conceptual understanding Sanjeev Meston, Lakeside College, Australia</p>	<p>Computational Making with Madeup Chris Johnson, University of Wisconsin, United States of America</p>	<p>Building the 21st Century Classroom Scott Millar, BOP Industries, Australia</p>	<p>A student-centred, project-based approach to STE(A)M Rachel Ford, Cengage, Australia</p>																															
12:00pm - 12:30pm	<p>Exploration of ubiquitous learning environment supported STEM teaching mode Xuanchen Zhou, Beijing Normal University, China</p>	<p>Overcoming Barriers: Enrollment in Mathematics and Physics at the advanced level in secondary school among two generations of high-skilled immigrants Sabina Lissitsa, Ariel University, Israel</p>	<p>Productive collaborative design of a STEAM unit of work in a multi-age class David Costin & Susan Chapman, Yarranlea Primary, Australia</p>	<p>The effects of a visual game programming environment on programming education for elementary school students Siyu Zha, Beijing Normal University, China</p>					<p>STEM Clubs: Inspiring quality STEM learning Angela Fitzgerald, University of Southern Queensland & Nicola Flanagan, Oakleigh State School, Australia</p>																															
12:30pm - 1:00pm	<p>Using coding to teach mathematics: Results of a pilot project Kathryn Holmes, Western Sydney University, Australia</p>	<p>Real world education: New routes to STEM graduate careers Sally Smith, Centre for Computer Education Research, United Kingdom</p>	<p>Development and practices of the ubiquitous greenhouse for technology education in junior high school Kazuaki Yoshihara, Hiroshima University, Japan</p>	<p>Pivots, professional vision, and reflective design in public computing Stephanie Hladik, University of Calgary, Canada</p>																																				

1:00pm - 2:00pm	Lunch									
2:00pm - 3:00pm	Keynote Presentation Room Z411									
3:00pm - 3:10pm	Engagement in STEM: making it happen Felicity Furey, Director, Machinam Chair: Les Dawes									
3:10pm - 4:10pm	Move to Concurrent Rooms									
	Concurrent Sessions 7									
	room P514	Session 7.1 room P512	Session 7.2 room P419	Session 7.3 room P421	Session 7.4 room P505	Session 7.5 room P504	room P413	room P413A	room O308	room O314
		STEM Learning	STEM Learning	STEM Learning	Workshop Stream	Workshop Stream				
		Chair: Marja Miller	Chair: Alberto Bellocchi	Chair: Samson Nashon	Chair: Colin Chapman	Chair: Robin Mckean				
3:10pm - 3:40pm		Integrated computational thinking and mathematics thinking: An analysis of two geometry activities Marja Miller, Western University, Canada	Indonesia science, mathematics, and engineering pre-service teachers' experiences in STEM-TPACK design-based learning Ching Sing Chai, The Chinese University of Hong Kong, Hong Kong	Promoting cognitive conflict through instructional strategies: gender difference in physics learning in secondary schools Samson Nashon, University of British Columbia, Canada						
3:40pm - 4:10pm		Mathematics: To integrate or not? Alexander Stuetz, Queensland University of Technology, Australia	Beautiful physics: Re-vision of aesthetic features of science through the literature review Hunkook Jho, Dankook University, South Korea	Fostering scientific graphing skills of 7th grade students through web-based inquiry learning: a pilot study in China Qianlan Zhao, Beijing Normal University, China	Systems Engineering: An approach to STEM that creates digital portfolios to reward risk-taking habits during learning opportunities Colin Chapman, Caroline Chisholm Catholic College, Australia	Tactile technologies are bonding with STEM Robin McKean, CSER Adelaide, Australia				
4:10pm - 4:20pm	Move to Plenary Room									
4:20pm - 4:50pm	Conference Close Room Z411									

Please note that this is a draft program only and is subject to change without notice. Please visit the website for the most up to date version.