

## International Conference on Computational Thinking Education 2018 (CTE2018)

### (Tentative) Programme Rundown

		14 June 2018 (Thursday)		15 June 2018 (Friday)			
09:00 – 09:15	<b>Registration</b>						
09:15 – 09:30	<i>Conference Centre, 09:00-09:30</i>						
09:30 – 09:45	<b>Opening Ceremony</b>			<b>Keynote Speech 2</b>			
09:45 – 10:00	<i>Conference Centre, 09:30-10:15</i>			“The Power behind the Power Point®” by Prof. Judith GAL-EZER (The Open University of Israel, Israel)			
10:00 – 10:15	<b>Coffee Break</b>			<i>Conference Centre, 09:30-10:30</i>			
10:15 – 10:30	<i>Conference Centre, 10:15-10:30</i>			<b>Coffee Break</b>			
10:30 – 10:45	<b>Keynote Speech 1</b>			<i>Conference Centre, 10:30-10:45</i>			
10:45 – 11:00	“Beyond Computational Thinking: Coding, Designing, and Making in the 21st Century” by Prof. Yasmin B. KAFAI (University of Pennsylvania, US)			<b>Session 7</b>			
11:00 – 11:15	<i>Conference Centre, 10:30-11:30</i>						
11:15 – 11:30	<b>Session 1</b>			<b>Session 8</b>			
11:30 – 11:45	Poster Mounting Conference Centre	• Paper 53 (L:11:30-12:00)		• Paper 26 (S:10:45-11:05)			
11:45 – 12:00		• Paper 71 (L:12:00-12:30)		• Paper 36 (S:11:05-11:25)			
12:00 – 12:15	<i>E-P-12, 11:30-12:30</i>		• Paper 50 (L:12:00-12:30)		• Paper 38 (S:11:25-11:45)		
12:15 – 12:30	<i>E-P-13, 11:30-12:30</i>		• Paper 65 (S:12:25-12:45)		• Paper 55 (S:11:45-12:05)		
12:30 – 12:45	<b>Networking Lunch</b>			<i>E-P-12, 10:45-12:45</i>			
12:45 – 13:00	<i>Conference Centre, 12:30-13:30</i>			<i>E-P-13, 10:45-12:35</i>			
13:00 – 13:15	<b>Networking Lunch</b>			<b>Networking Lunch</b>			
13:15 – 13:30	<i>Conference Centre, 12:45-13:45</i>			<i>Conference Centre, 12:45-13:45</i>			
13:30 – 13:45	<b>Session 3</b>			<b>Session 4</b>			
13:45 – 14:00	Poster Display Session Conference Centre	• Paper 14 (L:13:30-14:00)		• Paper 21 (S:13:30-13:50)			
14:00 – 14:15		• Paper 15 (S:14:00-14:20)		• Paper 22 (S:13:50-14:10)			
14:15 – 14:30		• Paper 31 (S:14:20-14:40)		• Paper 42 (S:14:10-14:30)			
14:30 – 14:45		• Paper 51 (L:14:40-15:10)		• Paper 62 (S:14:30-14:50)			
14:45 – 15:00		• Paper 72 (S:15:10-15:30)		• Paper 70 (S:14:50-15:10)			
15:00 – 15:15	<i>E-P-12, 13:30-15:30</i>			• Paper 74 (S:15:10-15:30)			
15:15 – 15:30	<i>E-P-13, 13:30-15:30</i>			<b>Session 9</b>			
15:30 – 15:45	<b>Coffee Break</b>			• Paper 43 (S:14:45-15:05)		<b>Session 10</b>	
15:45 – 16:00	<i>Conference Centre, 15:30-15:45</i>			• Paper 63 (S:15:05-15:25)		• Paper 34 (S:14:45-15:05)	
16:00 – 16:15	Poster Display Session Conference Centre	<b>Session 5</b>		<b>Session 6</b>		• Paper 23 (L:15:05-15:35)	
16:15 – 16:30		• Paper 39 (S:15:45-16:05)		• Paper 13 (L:15:45-16:15)		<i>E-P-12, 14:45-15:45</i>	
16:30 – 16:45		• Paper 64 (S:16:05-16:25)		• Paper 54 (L:16:15-16:45)		<i>E-P-13, 14:45-15:35</i>	
16:45 – 17:00	<i>E-P-12, 15:45-16:45</i>			<b>Invited Speech 1</b>			
17:00 – 17:15	<b>Poster Presentation</b>			“Computational Thinking for Social Change” by Mr. Nawneet RANJAN (Dharavi Diary, India)			
	Paper 16			<i>Conference Centre, 15:45-16:45</i>			
	Paper 44			<b>Workshop</b> “Interact with real world: MIT App Inventor and IoT” by Massachusetts Institute of Technology, US <i>E-P-12, 15:45-17:00</i>			
	Paper 48						
	Paper 30						
	Paper 49						
	Paper 59						
	Paper 17						
	Paper 69						
	Paper 56						
18:00 – 20:00	<b>Networking Dinner</b>			<i>Conference Centre, 16:45-17:15</i>			
	<i>Chinese Restaurant (Block C), EdUHK, 18:00-20:00</i>						

		16 June 2018 (Saturday)	
09:00 – 09:15	<b>Registration</b>		
09:15 – 09:30	<i>Conference Centre, 09:00-09:30</i>		
09:30 – 09:45	<b>Keynote Speech 3</b>		
09:45 – 10:00	“What lies beneath? Towards the cognitive underpinnings of computational thinking” by Prof. Judy ROBERTSON (University of Edinburgh, UK)		
10:00 – 10:15	<i>Conference Centre, 09:30-10:30</i>		
10:15 – 10:30	<b>Coffee Break</b>		
10:30 – 10:45	<i>Conference Centre, 10:30-10:45</i>		
10:45 – 11:00	<b>Invited Speech 2</b>		
11:00 – 11:15	“Computational Thinking Goes to Science and Math Class: The Case for STEM+C” by Ms. Linda Shear (SRI International, US)		
11:15 – 11:30	<i>Conference Centre, 10:45-11:45</i>		
11:30 – 11:45	<b>Computational Thinking and Future Education Forum</b>		
11:45 – 12:00	Panelists: Principal Tsz-wing CHU (Baptist Rainbow Primary School, HK)		
12:00 – 12:15	Prof. Heinz Ulrich HOPPE (University of Duisburg-Essen, Germany)		
12:15 – 12:30	Prof. Chee-kit LOOI (Nanyang Technological University, Singapore)		
12:30 – 12:45	Moderator: Prof. Siu-cheung KONG (The Education University of Hong Kong, HK)		
12:45 – 13:00	<i>Conference Centre, 11:45-12:45</i>		
13:00 – 14:00	<b>Closing Ceremony</b>		
	<i>Conference Centre, 12:45-13:00</i>		
	<b>Networking Lunch</b>		
	<i>Conference Centre, 13:00-14:00</i>		

Note: The Conference Centre, E-P-12 and E-P-13 are located at Block E, Podium, EdUHK.

**(Tentative) Detailed Programme**

<b>June 14, 2018 (Thursday)</b>		<b>Venue*</b>
09:00 – 09:30	Registration	Conference Centre
09:30 – 10:15	Opening Ceremony	Conference Centre
10:15 – 10:30	Coffee Break	Conference Centre
10:30 – 11:30	Keynote Speech 1 <b>Beyond Computational Thinking: Coding, Designing, and Making in the 21<sup>st</sup> Century</b> Speaker: Prof. Yasmin B. KAFAI (University of Pennsylvania, US)	Conference Centre
11:30 – 12:30	Academic Paper Presentation Session 1  Track: Computational Thinking <b>A Complementary View for Better Understanding the Term Computational Thinking (paper 53)</b> Marc JANSEN, Dan KOHEN-VACS, Nuno OTERO, Marcelo MILRAD  <b>The Use of Computational Thinking Concepts in Early Primary School (paper 71)</b> Ivica BOTICKI, Danica PIVALICA, Peter SEOW	E-P-12
	Academic Paper Presentation Session 2  Track: Computational Thinking and Special Education Needs <b>The Application of Minecraft in Education for Children with Autism in Special Schools (paper 32)</b> Wen-wen MU, Kuen-fung SIN  Track: General Submission to Computational Thinking Education <b>Developing a Framework for Computational Thinking from a Disciplinary Perspective (paper 50)</b> Joyce MALYN-SMITH, Irene A. LEE, Fred MARTIN, Shuchi GROVER, Michael A. EVANS, Sarita PILLAI	E-P-13
12:30 – 13:30	Networking Lunch (for invited guests and paid participants)	Conference Centre
13:30 – 15:30	Academic Paper Presentation Session 3  Track: Computational Thinking and Coding Education in K-12 <b>Analysis of Learner's Self-efficacy using Coding Education Support System for Understanding Complex Problem-Solving Steps (paper 14)</b> In-seong JEON, Hyeon-jeong JEONG, Ki-sang SONG  <b>Learning to Code—Does It Help Students to Improve Their Thinking Skills? (paper 15)</b> Ronny SCHERER, Fazilat SIDDIQ, Bárbara SÁNCHEZ VIVEROS  <b>To Improve the Computational Thinking of Elementary School Students by Scaffolding (paper 31)</b> Chien-i LEE, Sheng-chuan CHUANG, Shu-min WU  <b>Computational Concepts, Practices, and Collaboration in High School Students' Debugging Electronic Textile Projects (paper 51)</b> Gayithri JAYATHIRTHA, Deborah A. FIELDS, Yasmin B. KAFAI  <b>A School-wide Approach to Infusing Coding in the Curriculum (paper 72)</b> Sirajutheen Shahul HAMEED, Chee-wah LOW, Poh-tin LEE, Nur Illya Nafiza MOHAMED, Wuay-boon NG, Peter SEOW, Bimlesh WADHWA	E-P-12
	Academic Paper Presentation Session 4  Track: Computational Thinking and Teacher Development <b>The Design and Practice of Teacher Training Courses for Computational Thinking 基于计算思维培养的教师培训课程设计与实践 (paper 21) #</b> Yuxin LIU, Guang CHEN, Siyu ZHA, Anqi ZHANG  <b>An Investigation of Learning Achievement of Code.org Computational Thinking Course for Pre-service Elementary School Teachers 國小師資生 Code.org 運算思維課程實作與成效探討 (paper 22) #</b> Cheng-hsuan LI, Chih-wei YANG, and Bor-chen KUO  <b>Two Studies of Perceived and In-Situ Readiness for Implementing the Computing Education in Singapore (paper 42)</b> Longkai WU, Chee-kit LOOI, Meng-leong HOW, Liu LIU  <b>“It Opens Up a New Way of Thinking, but...”: Implications from Pre-Service Teachers' Introduction to Computational Thinking (paper 62)</b> Yu-hui CHANG, Lana PETERSON  <b>The Readiness of Computational Thinking Education in Taiwan: Perspectives from the K-12 Principals in 2017 (paper 70)</b> Ting-chia HSU  <b>A Survey of Secondary School Computing Teachers' PCK in Teaching Computational Thinking 中學資訊科技教師運算思維學科教學能力調查 (paper 74) #</b> Min-ying TSAI, Cheng-chih WU, Chih-hung YU	E-P-13

June 14, 2018 (Thursday)		Venue*	
	Poster Display Session	Conference Centre	
15:30 – 15:45	Coffee Break	Conference Centre	
15:45 – 16:45	Academic Paper Presentation Session 5  Track: Computational Thinking Development in Higher Education <b>The Use of Computational Thinking to Advance Learning in the Pre-university Subject of Digital Literacies (paper 39)</b> Ildiko VOLCZ  <b>Computational Thinking Teaching Material Design Based on Scratch and Effectiveness Analysis 應用 Scratch 之運算思維教材設計與教學成效分析 (paper 64) #</b> Chih-wei YANG, Cheng-hsuan LI, Bor-chen KUO, Cheng-yen HSIEH	E-P-12	
	Track: Computational Thinking and IOT <b>A Design-based Approach to Implementing a Computational Thinking Curriculum with App Inventor and the Internet of Things (paper 61)</b> Chi-hung TSENG, Mike TISSENBAUM, Wen-hsuan KUAN, Feng-chih HSU, Ching-chang WONG		
	Academic Paper Presentation Session 6  Track: Computational Thinking and Teacher Development <b>Teacher's Perceptions and Readiness to Teach Coding Skills: A Comparative Study between China, Finland and Singapore (paper 13)</b> Chee-kit LOOI, Jari MULTISILTA, Longkai WU, Pauliina TUOMI  <b>Computational Thinking Reshapes the Teachers' Perspective on Human Mind towards Teaching and Learning Process (paper 54)</b> Hew-mee CHEAH	E-P-13	
	Poster Display Session	Conference Centre	
16:45 – 17:15	Poster Presentation  Track: Computational Thinking and Unplugged Activities in K-12 <b>Design a Computational Thinking Board Game Based on Programming Elements (paper 16)</b> Sheng-yi WU, Jia-cen FANG, Shu-mei LIAN  Track: Computational Thinking and Coding Education in K-12 <b>Comparing with Scratch and Python in CT Concepts (paper 44)</b> Tae-ryeong KIM, Sun-gwan HAN  <b>A Curriculum and Contents of Programming Education for Computational Thinking (paper 48)</b> Hyojin BYUN, Miyoung RYU, Sungwan HAN  Track: Computational Thinking and Subject Learning and Teaching in K-12 <b>Promoting Computational Thinking and Collaborative Skills in Primary Robotics Classes (paper 30)</b> Hyungshin CHOI, Jeongmin LEE  Track: Computational Thinking and STEM/STEAM Education <b>Examining a Secondary School Computational Action Curriculum Using App Inventor and the Internet of Things (paper 49)</b> Mike TISSENBAUM, Josh SHELDON, Hal ABLESON, Mark SHERMAN  Track: Computational Thinking and Special Education Needs <b>Curriculum Development for Integrating Computational Thinking into Mathematical Problem Solving: a Study for Children with Special Needs 結合運算思維在國小特殊教育需求的數學教學活動之發展 (paper 59) #</b> Chen-huei LIAO, Bor-chen KUO, Kai-chih PAI, Pei-chen WU  Track: Computational Thinking and Teacher Development <b>Designing Computational Thinking Assessment: A Case Study of a Pre-Service Teacher Course in Korea (paper 17)</b> Mi Song KIM, Hyungshin CHOI  <b>Which Parts do Future Teachers Identify of Computer Science Concepts? First Results of an Analysis of Part-Whole-Thinking in Computer Science Education (paper 69)</b> Nils PANCRATZ, Ira DIETHELM  Track: General Submission to Computational Thinking Education <b>Virtuality Literacy: On the Representation of Perception (paper 56)</b> Andreas DENGEL	Conference Centre	
	18:00 – 20:00	Networking Dinner (for invited guests and paid participants)	Chinese Restaurant, Block C

June 15, 2018 (Friday)		Venue*
09:00 – 09:30	Registration	Conference Centre
09:30 – 10:30	Keynote Speech 2 <b>The Power behind the The Power behind the Power Point®</b> Speaker: Prof. Prof. Judith Gal-Ezer (The Open University of Israel, Israel)	Conference Centre
10:30 – 10:45	Coffee Break	Conference Centre
10:45 – 12:45	Academic Paper Presentation Session 7  Track: Computational Thinking and Unplugged Activities in K-12 <b>The Application of Unplugged Computational Thinking Activities in High School - Taking “Binary Card” Course as an Example</b> 不插电的计算思维教学活动在高中课堂教学中的应用 — 以《二进制卡牌》课程为例 (paper 28) # Bingqing YANG, Jinbao ZHANG  Track: Computational Thinking and STEM/STEAM Education <b>A Preliminary Activity Design of a Task-Based Game - The Navigator</b> 創客奇航-遊戲任務導向之運算思維活動設計初探 (paper 19) # Shu-hsien HUANG, Hung-ju CHEN, Hsin-yu YEH, I-fan TSAI, Ju-ling SHIH  <b>Introducing Computational Thinking across the Curriculum with Virtual Reality (paper 25)</b> Merijke COENRAAD, David WEINTROP  <b>A DSML for a Robotics Environment to Support Synergistic Learning of CT and Geometry (paper 35)</b> Nicole HUTCHINS, Timothy DARRAH, Hamid ZARE, Gautam BISWAS  <b>Development of BIC-Science Module: An Interdisciplinary Approach of Computer Science and Primary Science Education (paper 65)</b> Tracy MENSAN, Kamisah OSMAN	E-P-12
	Academic Paper Presentation Session 8  Track: Computational Thinking and Evaluation <b>Assessment of Computational Thinking (paper 26)</b> Nikolina BUBICA, Ivica BOLJAT  <b>Cross Comparison of Multiple Computational Thinking Activities: a Grey-based approach (paper 36)</b> Meng-leong HOW, Chee-kit LOOI  <b>Exploring the Assessment of Computational Thinking from 2013 to 2017: A Systematic Review</b> 计算思维评估的研究现状综述 (2013-2017) (paper 38) # Anqi ZHANG, Guang CHEN, Yuxin LIU, Wei CHENG  <b>On Tools that Support the Development of Computational Thinking Skills: Some Thoughts and Future Vision (paper 55)</b> Gregorio ROBLES, Jean Carlo Rossa HAUCK, Jesús MORENO-LEÓN, Marcos ROMÁN-GONZÁLEZ, Roberto NOMBELA, Christiane Gresse VON WANGENHEIM  <b>Evaluating Computational Thinking in Jupyter Notebook Data Science Projects (paper 57)</b> Clara SORENSEN, Eni MUSTAFARAJ	E-P-13
	Poster Display Session	Conference Centre
12:45 – 13:45	Networking Lunch (for invited guests and paid participants)	Conference Centre
13:45 – 14:45	<b>CoolThink@JC Senior Primary Curriculum Dissemination Seminar</b> Speaker: Prof. Siu-cheung KONG (The Education University of Hong Kong, Hong Kong)	Conference Centre
14:45 – 15:45	Academic Paper Presentation Session 9  Track: Computational Thinking and STEM/STEAM Education <b>A Development of a SW-STEAM Education Program using the Flipped Learning (paper 43)</b> Hae-nam SONG, Sun-gwan HAN  <b>Thinking in Parts and Wholes: Part-Whole-Thinking as an Essential Computational Thinking Skill in Computer Science Education (paper 63)</b> Nils PANCRATZ, Ira DIETHELM	E-P-12
	Track: Computational Thinking and Evaluation <b>Guiding Learning Thinking in MOOC based on Expert Knowledge Map</b> 基於專家知識地圖引導慕課學習思維 (paper 58) # Jian-Wei TZENG, Nen-Fu HUANG, Chia-An LEE	
	Academic Paper Presentation Session 10  Track: Computational Thinking and Subject Learning and Teaching in K-12 <b>The Development of Computational Thinking of High School Students Based on DBR —Taking the Information Technology Course as an Example</b> 基于 DBR 的高中生计算思维的培养 — 以信息技术课程为例 (paper 34) # Youyuan SU, Xiulin MA, He MAO, Cuixia WANG	E-P-13

<b>June 15, 2018 (Friday)</b>		<b>Venue*</b>
	<b>Students' Attitude Changes through Integrating Computational Thinking into English Dialogue Learning (paper 23)</b> Xiaojing WENG	
	Poster Display Session	Conference Centre
15:45 – 16:45	Invited Speech 1 <b>Computational Thinking for Social Change</b> Speaker: Mr. Nawneet RANJAN (Dharavi Diary, India)	Conference Centre
15:45 – 17:00	Workshop by Massachusetts Institute of Technology <b>Interact with real world: MIT App Inventor and IoT (Internet of Things)</b> Speaker: Mr. David Tseng Chi-hung (MIT CSAIL Visiting Scientist (with App Inventor), Founder of CAVEDU Education)	E-P-12

<b>June 16, 2018 (Saturday)</b>		<b>Venue*</b>
09:00 – 09:30	Registration	Conference Centre
09:30 – 10:30	Keynote Speech 3 <b>What Lies Beneath? Towards the Cognitive Underpinnings of Computational Thinking</b> Speaker: Prof. Judy Robertson (University of Edinburgh, The United Kingdom)	Conference Centre
10:30 – 10:45	Coffee Break	Conference Centre
10:45 – 11:45	Invited Speech 2 <b>Computational Thinking Goes to Science and Math Class: The Case for STEM+C</b> Speaker: Ms. Linda Shear (SRI International, The United States)	Conference Centre
11:45 – 12:45	<b>Computational Thinking and Future Education Forum</b> Panelists: Principal Tsz-wing CHU (Baptist Rainbow Primary School, Hong Kong) Prof. Heinz Ulrich HOPPE (University of Duisburg-Essen, Germany) Prof. Chee-kit LOOI (Nanyang Technological University, Singapore) Moderator: Prof. Siu-cheung KONG (The Education University of Hong Kong, Hong Kong)	Conference Centre
12:45 – 13:00	Closing Ceremony	Conference Centre
13:00 – 14:00	Networking Lunch (for invited guests and paid participants)	Conference Centre

Notes:

# Please note that these papers are written in Chinese and may be presented in Cantonese/Mandarin.

\* The Conference Centre, E-P-12 and E-P-13 are located at Block E, Podium, EdUHK.