PROGRAM AT A GLANCE

TIME	12/2	12/3	TIME	12/4	12/5	TIME	12/6
08:30 ~ 09:00	Registration						
09:00 ~ 10:20	Tutorial/ Workshops	Tutorial/ DSC/ Workshops/ Student Wing	09:00 ~ 10: 00	Opening Ceremony	Keynote Speaker	09:00 ~ 10: 00	Keynote Speaker
			~ 10:20	Coffee/Tea break			
~ 10:40	Coffee/Tea break		10:20 ~ 11:20	Keynote Speaker	Theme Speaker/ Community Building	10:20 ~ 11:20	Parallel Sessions
10:40 ~ 12:20	Tutorial/ Workshops	Tutorial/ DSC/ Workshops/ Student Wing	11:20 ~ 12:20	IPC Meeting/ Parallel Sessions	Panel 1/ Parallel Sessions	11:20 ~ 12:20	Parallel Sessions
12:20 ~ 13:20	Lunch break						
13:20 ~ 14:20	Tutorial/ Workshops	Tutorial/ DSC/ Workshops/ ECW	13:20 ~ 14:20	Theme Speaker/ Parallel Sessions	Keynote Speaker	13:20 ~ 15:00	Parallel Sessions
~ 14:40	Coffee/Tea break		~14:30	Time For Moving To Another Session			
			14:30 ~ 15:20	Parallel Sessions/ SIG Leaders' Meeting	Parallel Sessions		
14:40 ~ 16:10	Tutorial/ Workshops	Tutorial/ DSC/ Workshops/ ECW	~15:40	Coffee/Tea break		15:00 ~ 16:00	Closing Ceremony
16:10 ~ 17:10	Tutorial/ Community Building	Tutorial/DSC/ Workshops/ Community Building/ECW	15:40 ~ 16:30	Panel 2/ Parallel Sessions/ Community Building	Panel 3/ Parallel Sessions		
			16:30 ~ 17:30	Panel 2/ Parallel Sessions	Poster/WIPP		
		18:00~21:00 Welcome Reception		18:00~23:00 APSCE EC meeting	18:00~21:00 Conference Banquet		

December 2 (Monday)

TIME	Room 101	Room 102	Room 103	Room 104	Room 105	Room 106
08:30~09:00	Registration					
09:00~10:20	Tutorial 4	W10	W12	W13	W08	
10:20~10:40	Coffee/Tea break					
10:40~12:20	Tutorial 4	W10	W12	W13	W08	
12:20~13:20	Lunch break					
13:20~14:20	Tutorial 1	W09	W12	W05	W08	W15
14:20~14:40	Coffee/Tea break					
14:40~16:10	Tutorial 1	W09	W12	W05	W08	W15
16:10~17:10	Tutorial 1				DICTAP SIG's Community Building	

December 3 (Tuesday)

TIME	Room 101	Room 102	Room 103	Room 104	Room 105	Room 106
08:30~09:00	Registration					
09:00~10:20	W07 (plus W11)	W02	W01	Student Wing	DSC	Tutorial 2
10:20~10:40	Coffee/Tea break					
10:40~12:20	W07 (plus W11)	W02	W01	Student Wing	DSC	Tutorial 2
12:20~13:20	Lunch break					
13:20~14:20	W16	W04 (plus W03)	W06	ECW	DSC	Tutorial 3
14:20~14:40	Coffee/Tea break					
14:40~16:10	W16	W04 (plus W03)	W06	ECW	DSC	Tutorial 3
16:10~17:10	W14	W14	CUMTEL SIG's Community Building	ECW	DSC	Tutorial 3
18:00~21:00	Welcome Reception *Chateau Beach Resort*					

December 4 (Wednesday)

TIME	Howard Hall	Room 101	Room 102	Room 103	Room 104	Room 105	Room 106
08:30~09:00	Registration						
09:00~10:00	Opening Ceremony						
10:00~10:20	Coffee/Tea break						
10:20~11:20	Keynote Speaker Joke VOOGT						
11:20~12:20	IPC Meeting			TELL-1	CUMTEL-1	CSCL/LS-1	PTP-1
12:20~13:20	Lunch break						
13:20~14:20	Theme Speaker Yuichi ONO			EGG-1		ALT/LA/PI-1	
14:20~14:30	Time For Moving To Another Session And Session Preparation						
14:30~15:20	TELL-2			AIED/ITS-1	CUMTEL-2	CSCL/LS-2	SIG Leaders' Meeting
15:20~15:40	Coffee/Tea break						
15:40~16:30	Panel 2	TELL SIG's Community Building	ALT/LA/PI-2	AIED/ITS-2	CSCL SIG's Community Building	CUMTEL-3	EGG SIG's Community Building
16:30~17:30							PTP-2
18:00~23:00	APSCE EC meeting *Formosa Hall*						

December 5 (Thursday)

TIME	Howard Hall	Room 101	Room 102	Room 103	Room 104	Room 105	Room 106
08:30~09:00	Registration						
09:00~10:00	Keynote Speaker Stephen J.-H. YANG						
10:00~10:20	Coffee/Tea break						
10:20~11:20				Theme Speaker Bodong CHEN	AIED/ITS SIG's Community Building	Theme Speaker Xiaoqing GU	
11:20~12:20	Panel 1			ALT/LA/PI-3	EGG-2	CUMTEL-4	
12:20~13:20	Lunch break						
13:20~14:20	Keynote Speaker Mina. C. JOHNSON						
14:20~14:30	Time For Moving To Another Session And Session Preparation						
14:30~15:20				ALT/LA/PI-4	EGG-3	CUMTEL-5	CSCL/LS-3
15:20~15:40	Coffee/Tea break						
15:40~16:30				Panel 3	EGG-4	CUMTEL-6	TELL-3
16:30~17:30	Poster/WIPP						
18:00~21:00	Banquet						

December 6 (Friday)

TIME	Howard Hall	Room 101	Room 102	Room 103	Room 104	Room 105	Room 106
08:30~09:00	Registration						
09:00~10:00	Keynote Speaker Hiroaki OGATA						
10:00~10:20	Coffee/Tea break						
10:20~11:20				ALT/LA/PI-5	TELL-4	CSCL/LS-4	AIED/ITS-3
11:20~12:20				ALT/LA/PI 6 + AIED/ITS 4	TELL-5	CSCL/LS-5	
12:20~13:20	Lunch break						
13:20~15:00				ALT/LA/PI-7	TELL-6 ~14:20	EGG-5	PTP-3
15:00~16:00	Closing Ceremony						

December 2 (Monday)		
09:00~12:20 **10:20 ~ 10:40** **Coffee** **Tea break**	**Tutorial 4:** From topic and research question to published manuscript: A 10-step process to writing a research article through the use of FOSS Tools and open access information **Instructor:** Trevor Watkins, George Mason University; Feng-Ru Sheu, Kent State University	**ROOM 101**
	W10: The 6th ICCE Workshop on Learning Analytics (LA) - Scaling Up Evidence-based Institutional LA Practices **Organizers:** Brendan Flanagan, Rwitajit Majumdar, Weiqin Chen, Hiroaki Ogata #W10-2 Impacts of a knowledge sharing-based e-book system on students' language learning performance and behaviors (Mei-Rong Alice Chen, Hiroaki Ogata, Gwo-Jen Hwang, Gökhan Akçapınar, Hsu Hsiao-Ling, Brendan Flanagan and Yi-Hsuan Lin) #W10-03 Analysis of Student Behaviors in Programming Exercises in Controlled and Natural Environments (Thomas James Tiam-Lee and Kaoru Sumi) #W10-04 Measuring Analysis Skill in Data-informed Self-directed Activities (Yuanyuan Yang, Rwitajit Majumdar, Huiyong Li, Brendan Flanagan, Gökhan Akçapınar and Hiroaki Ogata) #W10-06 Predicting the level of linguistic knowledge from appropriately chosen learning data: A pilot study of English prepositional acquisition for Japanese EFL learners (Yuichi Ono) #W10-08 Identifying At-risk Students from Course-specific Predictive Analytics (Chung Lim Christopher Kwan)	**ROOM 102**
	W12: The 12th Workshop on Technology Enhanced Learning by Posing/Solving Problems/Questions - Analysis and Design of Problems/Questions **Organizers:** Yusuke Hayashi (Hiroshima University, Japan), Tsukasa Hirashima (Hiroshima University, Japan), Kazuaki Kojima (Teikyo University, Japan), Tomoko Kojiri (Kansai University, Japan), Jon Mason (Charles Darwin University, Australia), Tanja Mitrovic (University of Canterbury, New Zealand), Fu-Yun Yu (National Cheng Kung University, Taiwan) #W12-02 Supporting Knowledge Organization for Reuse in Programming: Proposal of a System Based on Function-Behavior-Structure Models (Kento Koike, Takahito Tomoto, Tomoya Horiguchi, Tsukasa Hirashima) #W12-04 Reflection Support System in Ill-defined Problem Solving (Mariko Yoshioka, Kazuhisa Seta, Yuki Hayashi) #W12-01 A Study of Problem-Based Pedagogy for Fostering English Grammar Acquisition in a Web-Based Context: A Pilot Study (Lu-Fang Lin) #W12-06 Redefining Question for Curve-Driving Practice Using Augmented Reality and Driving Models (Sho Yamamoto, Yuki Morishima) #W12-07 A Support System for Learning Physics in Which Students Identify Errors Using Measurements Displayed by a Measurement Tool (Urara Ueno, Takahito Tomoto, Tomoya Horiguchi, Tsukasa Hirashima)	**ROOM 103**

December 2 (Monday)		
09:00~12:20 **10:20 ~ 10:40** **Coffee** **Tea break**	#W12-08 Design Robot-Programming Activities to Engage students in the Computational Problem Solving Process (Chun-Ping Wu, Jia-jyun Chen, Shih-chung Li) Tutorial Session: "Augmented Thermal Perception to Problem-Solving via Technology-Enhanced Modules" Shannon H. Sung, Charles Xie (Concord Consortium, USA)	**ROOM 103**
	W13: Design for choreographies/ambiance for global AGILE learning to foster future skills **Organizers:** Tosh Yamamoto, Kansai University, Japan; Juling Shih, National Central University, Taiwan; Benson Ong, Nanyang Polytechnic University, Singapore; Chris Pang, Nanyang Polytechnic University, Singapore; Carol Hui-Chun Chu, Soochow University, Taiwan; Takuro Ozaki, Osaka Educational University, Japan; Yasuhiro Hayashi, Musashino University, Japan	**ROOM 104**
	W08: The 8th International Workshop on ICT Trends in Emerging Economies (WICTTEE 2019) **Organizers:** Niwat Srisawasdi, Khon Kaen University, Thailand ; Patcharin Panjaburee, Mahidol University, Thailand; Bo Jiang, Zhejiang University of Technology, China; Jessica O Sugay, Ateneo de Manila University, Philippines; Jayakrishnan M., Indian Institute of Technology Bombay, India #W08-01 Value-Based Adoption of Open Source Software in Higher Education: An Empirical Investigation (Hazel A. TRAPERO, Cecilia B. LEAÑO & Ma. Rowena CAGUIAT) #W08-06 A Web-based Learning System for Myanmar Culture and Language Learning of Undergraduate Students in Thailand (Chanapa CHANOONAN, Nang Chit Su THEW, Charoenchai WONGWATKIT, Waralak CHONGDARAKUL, Suphaphan CHANSIRI & Chit Su Po Po) #W08-02 Development and Testing of a Mobile Game for English Proficiency Among Filipino Learners (Monica MORENO, Dominique Marie Antoinette MANAHAN, Marika Gianina FERNANDEZ, Michelle BANAWAN, Jose Isidro BERAQUIT, Marie Rianne M. CAPARROS, Philip CACERES, Walfrido David DIY, Lean Rimes SARCILLA, Francesco AMANTE & Ma. Mercedes T. RODRIGO) #W08-12 Teaching English with Science: A Result of Content and Language Integrated Learning Approach and Mobile-assisted Inquiry Pedagogy (Apiraporn THUMTATHONG, Sasivimol PREMTHAISONG, Niwat SRISAWASDI) #W08-04 An Interactive Story-based Mobile Application with Personal Recommendation and Notification for Sexual Health Education in Ethnic Adolescents (Suphaphan CHANSIRI, Charoenchai WONGWATKIT) #W08-07 Experience H+AC in Museums: An Integrated Inquiry-based BYOD Approach for Social Studies in Thailand (Chitphon YACHULAWETKUNAKORN, Ratthakarn NA PHATTHALUNG, Charoenchai WONGWATKIT, Jintana WONGTA & Chayanuch WATTHANA)	**ROOM 105**
12:20 ~ 13:20	Lunch break	

13:20 ~ 16:10	**Tutorial 1:** Web-based game development for beginners: A Hands-on Learning Experience	**ROOM 101**
	Instructor: Ahmed Tlili, Smart Learning Institute of Beijing Normal University; Ting-Wen Chang, Smart Learning Institute of Beijing Normal University	
14:20 ~ 14:40	**W09:** Teaching Logical Thinking and Programming Language at Different Levels of Instruction	**ROOM 102**
Coffee	**Organizers:** Tzu-Keng Fu	
Tea break	#W09-01 Fictional publicness：A possible way out of practice in game	
	(Hung-Yang Shen and Jing-Li Hong)	
	#W09-02 Argument Analyzer: Visualizing and explaining logical arguments in context	
	(John Blake)	
	#W09-03 Another Perspective of the Sleeping Beauty Problem: What Lessons Can we Learn from the Sleeping Beauty Problem?	
	(Shih-Hsun Chen)	
	#W09-04 Conceptual Metaphor in Teaching Logic	
	(Tzu-Keng Fu & Anca Christine Pascu)	
	W12: The 12th Workshop on Technology Enhanced Learning by Posing/Solving Problems/Questions - Analysis and Design of Problems/Questions	**ROOM 103**
	Organizers: Yusuke Hayashi (Hiroshima University, Japan); Tsukasa Hirashima (Hiroshima University, Japan); Kazuaki Kojima (Teikyo University, Japan); Tomoko Kojiri (Kansai University, Japan); Jon Mason (Charles Darwin University, Australia); Tanja Mitrovic (University of Canterbury, New Zealand); Fu-Yun Yu (National Cheng Kung University, Taiwan)	
	#W12-03 The Effects of Different Procedural Prompts on Online Student-Generated Question Performance	
	(Fu-Yun Yu, Wen-Wen Cheng)	
	#W12-05 Questions and Ethical Dilemmas within a Design-Based Research Project	
	(Melvin Freestone, Jon Mason)	
	Training Session: "Exploring the Question Formulation Technique"	
	Jon Mason (Charles Darwin University, Australia)	
	Community Building Session for APSCE SIG: "Educational Use of Problems/Questions in Technology-Enhanced Learning"	
	W05: The 4th International Workshop on the Theory and Practice of Interest-Driven Creators (IDC)	**ROOM 104**
	Organizers: Zhi-Hong Chen, National Taiwan Normal University, Taiwan; Hercy N. H. Cheng, Central China Normal University, China; Calvin C. Y. Liao, National Taipei University of Nursing and Health Sciences, Taiwan	
	#W05-01 Designing an Interest-Driven Challenge-Based Learning and Alternative Assessment Method for an Educational Technology Undergraduate Course	
	(Mas Nida)	
	#W05-02 Enhancing students' writing quality and interest through story creation: From the perspective of the interest-driven creator (IDC) theory	
	(Wen-Yi LIU & Zhi-Hong CHEN)	
	#W05-03 How the Habits of Self-regulated Academic Writers are Behaviorally Facilitated?	
	(Hercy N. H. CHENG & Xiaotong ZHANG)	

13:20 ~ 16:10 **14:20 ~ 14:40** **Coffee** **Tea break**	#W05-04 Developing digital game-based learning system for the acquisition of Chinese characters in primary education: An interest-driven creator (IDC) theory perspective (Wen-Yi LIU & Zhi-Hong CHEN)	**ROOM 104**
	W08: The 8th International Workshop on ICT Trends in Emerging Economies (WICTTEE 2019) **Organizers:** Niwat Srisawasdi, Khon Kaen University, Thailand ; Patcharin Panjaburee, Mahidol University, Thailand; Bo Jiang, Zhejiang University of Technology, China; Jessica O Sugay, Ateneo de Manila University, Philippines; Jayakrishnan M., Indian Institute of Technology Bombay, India #W08-10 Personality Traits of Future Nurses and Cyberchondria: Findings from an Emerging Economy (Josephine DE LA CUESTA, Jypzie CATEDRILLA, Ryan EBARDO, Laiza LIMPIN, Cecilia LEAÑO & Hazel TRAPERO) #W08-11 Digital Learning Transformation for One-room Schoolhouses in Rural Pakistan (Faisal BADAR & Jon MASON) #W08-13 Foregrounding the prototype design of a generic differentiated assessment tool for mixed-ability classroom (Mas Nida MD KHAMBARI, Su Luan WONG & Noris MOHD NOROWI) Title: Promising Case Session: "Educational Projects and ICT Trends in Emerging Economies" Niwat Srisawasdi (Khon Kaen University, Thailand) Bo Jiang (Zhejiang University of Technology, China) Jayakrishnan M. (Indian Institute of Technology Bombay, India) Title: Community Building Session for APSCE SIG: "Development of Information and Communication Technology in the Asia Pacific Neighbourhood (DICTAP)" Presenter: Niwat Srisawasdi (Khon Kaen University, Thailand) Su Luan Wong (Universiti Putra Malaysia, Malaysia) Mas Nida Md Khambari (Universiti Putra Malaysia, Malaysia)	**ROOM 105**
	W15: The 4th Computer-Supported Personalized and Collaborative Learning **Organizers:** Robin Chiu-Pin Lin, National Tsing Hua University, Taiwan; Sherry Y. Chen, National Central University, Taiwan; Gwo-Haur Hwang, National Yunlin University of Science and Technology, Taiwan; Fu-Yun Yu, National Cheng Kung University, Taiwan; Wenli Chen, Nanyang Technological University, Singapore; Shu-Yuan Tao, Takming University of Science and Technology, Taiwan; Hsiu-Ling Chen, National Taiwan University of Science and Technology, Taiwan #W15-01 Design and Construction of the Learner-centered E-learning System for Facilitating Dermoscopy Image Analysis and Diagnosis in Medical Education (Tzu-Shin LIN & Shelley Shwu-Ching YOUNG) #W15-02 Social Factors in the Usage Continuance of Instant Messaging for Group Collaboration (Ryan EBARDO, Laiza LIMPIN) #W15-03 An Investigation of Affect within Ibigkas!: An Educational Game for English (Michelle P. BANAWAN, Raul LUMAPAS, Jaclyn L. OCUMPAUGH, & Ma. Mercedes T. RODRIGO)	**ROOM 106**

13:20 ~ 16:10
 	
14:20 ~ 14:40
Coffee
Tea break
	#W15-04 The Discourse of Pre-service Teachers on Designing an Online Learning Course
	    (Chih-Hui SEET, Chuan-Chih CHIANG, Huang-Yao HONG)
	#W15-06 Exploring the changes in teachers' teaching behavior in the environment of e-books
	    (Xing-Juan Wang, Dong-Ming Qian)
	#W15-07 The Impacts of Digital Games on Learning Academic English: A Prior Knowledge
	    Perspective
	    (Guan-Lin Lin, Sherry Y. CHEN)
	#W15-08 Learning Conversation with a Mobile Robot
	    (Wing-Kwong WONG, Wen-Jia KUO , Ting-Sheng WEI, Kai-Ping CHEN)
		ROOM 106

16:10 ~ 17:10	**Tutorial 1:** Web-based game development for beginners: A Hands-on Learning Experience **Instructor:** Ahmed Tlili, Smart Learning Institute of Beijing Normal University; Ting-Wen Chang, Smart Learning Institute of Beijing Normal University	**ROOM 101**
	DICTAP SIG's Community Building Special Interest Group (SIG) on Development of Information and Communication Technology in the Asia-Pacific Neighborhood(DICTAP) **SIG Chair:** Niwat SRISAWASDI (Khon Kaen University, Thailand) Bo JIANG (Zhejiang University of Technology, China) Patcharin Panjaburee (Mahidol University, Thailand)	**ROOM 105**

December 3 (Tuesday)		
09:00~12:20 **10:20 ~ 10:40** **Coffee** **Tea break**	**W07:** The 3rd International Workshop on Information and Communication Technology for Disaster and Safety Education (ICTDSE2019) **Chair:** Hiroyuki MITSUHARA, Tokushima University, Japan **W11:** New Endeavours of Implementing Computational Thinking in K-12 Education **Chair:** Longkai Wu, Nanyang Technological University, Singapore; Ting-Chia Hsu, National Taiwan Normal University, Taiwan; Ivica Botički, University of Zagreb, Croatia #W07-01 Practical Evaluation of ICT-based Self-made Regional Safety Map through Residents' Workshop in a Historical Local Town (Yasuhisa OKAZAKI, Sho MATSUO, Hiroshi WAKUYA, Yukuo HAYASHIDA, Nobuo MISHIMA) #W07-03 Exploring the Application of ICT base Disaster Education System for Foreigners in Japan (Meiqin LIU, Hiroyuki MITSUHARA & Masami SHIHIBORI) #W07-05 Examination of the Learning Effects of Creating Disaster Prevention Maps Outdoors Using ICT Devices as a Learning Activity (Hisashi HATAKEYAMA, Masahiro NAGAI & Masao MUROTA) #W11-01 Computational thinking development challenges: case studies in Thai primary education (Kantinee KATCHAPAKIRIN, Chutiporn ANUTARIYA) #W11-02 A Programming Learning System Introducing Small Steps Involving Mutual Evaluation (Hideyuki TAKADA, Ayaka IWASA, Risa MATSUBARA, Yuki TAKEDA, Tsuyoshi DONEN)	**ROOM 101**
	W02: New Computer Simulations in STEM Education **Chair:** Chen-Chung Liu, National Central University, Taiwan #W02-01 Enhancing Primary School Students' Higher Order Thinking Skills in Data Handling through Active Learning with Smart Board (Hon-Mun SOH, Abdul Halim Abdullah & Mahani Mokhtar) #W02-02 Pedagogy Designs to Augment the Impact of Computer Simulations (Hsin-Yi CHANG, Cai-Ting WEN, Ming-Hua CHANG & Chen-Chung LIU) #W02-03 Augmented reality research output from 1990-2018: A bibliometric analysis (Kaushal Kumar BHAGAT) #W02-04 Easy Java/JavaScript Simulations as a tool for Learning Analytics (Francisco ESQUEMBRE, Félix J. GARCÍA CLEMENTE, Rafael CHICÓN, Lawrence WEE, Leong Tze KWANG & Darren TAN) #W02-05 The impact of sensory simulations on young children's science learning (Cai Ting Wen, Shao Mei Chen, Chen Chung Liu, Chia Jung Chang, Ming Hua Chang, Shih Hsun Fan Chiang, Fu Kwun Hwang , Hsin Yi Chang, Chih Wei Yang) #W02-06 Linking the learning processes to learning engagement and learning outcomes: How well did the students learn in modeling-based computer simulation activities (Ya-Joe Wang, Silvia Wen-Yu Lee, Pai-Chuan Lin & Chen-Chung Liu)	**ROOM 102**

December 3 (Tuesday)		
09:00~12:20 **10:20 ~ 10:40** **Coffee** **Tea break**	**W01:** The 3rd Workshop on Digital Game-Based Learning and Gamification Instructional Strategies for K-12 Schools **Chair:** Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan; Shu-Ming Wang, Chinese Culture University, Taiwan; Feng-Kuang Chiang, Shanghai Normal University, China #W01-01 A Study on Flow Experience and Learning Effectiveness of RFID Educational Board Game System (Hsuan-Yu LIN and Chih-Ming CHU) #W01-02 Designing and evaluating a mobile educational game"Void Broken 2.0" for history instruction (Yi-Shiuan CHOU, Huei-Tse HOU, Chien-Lun SU & Kuo-En CHANG) #W01-03 A Flipped Classroom Model with Gamified Inquiry-based Process-Concept Relationship (Tanakorn PANOMRERNGSAK, Niwat SRISAWASDI) #W01-04 The design and evaluation of junior high school physical mechanics game (Juan Du, Feng-Kuang Chiang) #W01-05 The road towards friendly, classroom-centered interactive digital contents authoring (Andrea VALENTE, Emanuela MARCHETTI) #W01-06 Towards Computational Thinking in Scandinavia (Kasper KRISTENSEN)	**ROOM 103**
	Student Wing **Chair:** Alwyn Vwen Yen LEE, Nanyang Technological University, Singapore; Ocheja Patrick ILEANWA, Kyoto University, Japan; Geela Venise FABIC, University of Canterbury, New Zealand; Kennedy LIN, National Cheng Kung University, Taiwan; Emily TABANAO, University of Ateneo Manila, Philippines **Thematic talk** Prof. Hiroaki Ogata (Kyoto University, Japan) on learning analytics Prof. Vivien Lin (National Yunlin University of Science and Technology, Taiwan) on Opportunities and Challenges of Technological Appropriation for Language Educators	**ROOM 104**
	Doctoral Student Consortium (DSC) **Chair:** Weiqin Chen, Oslo Metropolitan University, Norway; Tatsunori Matsui, Waseda University, Japan; Ulrich Hoppe, University of Duisburg-Essen, Germany **09:00-10:20 Session 1** **Chair:** Tatsunori Matsui, Waseda University, Japan **Mentor:** Ulrich Hoppe, University of Duisburg-Essen, Germany; Yasuhisa Tamura, Sophia University, Japan DSC-02 Development of a computational thinking assessment tool for lower secondary students in Malaysia (Filzah Zahilah Mohamed Zaki, Universiti Putra Malaysia, Malaysia) DSC-11 Developing a Model for Effective Cascaded School Teacher Training on ICT Integration in Tanzania (Lucian Vumilia Ngeze, Indian Institute of Technology Bombay, India)	**ROOM 105**

December 3 (Tuesday)		
09:00~12:20 **10:20 ~ 10:40** **Coffee** **Tea break**	DSC-15 Digital Multi-Grade One-room Schoolhouses for underprivileged communities in rural Pakistan (Faisal Bin Badar, Charles Darwin University) **10:40-12:00 Session 2** **Chair:** Tatsunori Matsui, Waseda University, Japan **Mentor:** Nguyen-Thinh Le, Humboldt University of Berlin, Germany; Riichiro Mizoguchi, Japan Advanced Institute of Science and Technology, Japan; Stephen J-H Yang, National Central University, Taiwan DSC-01 Analysis of "Evaluation Behavior" Using Students' Peer Assessment Process Data (Izumi Horikoshi, Sophia University, Japan) DSC-09 Mining Student Experience and Feedback in Social and Professional Issues in IT: Basis for Understanding Blended Learning (Arlene Mae Celestial-Valderama, University of the East Manila, Philippines) DSC-10 Promoting Students' Self-Direction Skills through Scaffolding with Learning and Physical Activity Data (Huiyong Li, Kyoto University, Japan) DSC-14 KB-Mixed: A Reconstruction and Improvable Concept Map to Enhance Meaningful Learning and Knowledge Structure (Didik Dwi Prasetya, Hiroshima University, Japan)	**ROOM 105**
	Tutorial 2: Planning, Designing and Orchestrating: Learner-Centric MOOcs using the LCM model **Instructor:** Veenita Shah, India Institute of Technology Bombay, India; Jayakrishnan M., Indian Institute of Technology Madras, India; Sridhar Iyer, India Institute of Technology Bombay, India; Sahana Murthy, India Institute of Technology Bombay, India	**ROOM 106**
12:20 ~ 13:20	**Lunch break**	
13:20 ~ 16:10 **14:20 ~ 14:40** **Coffee** **Tea break**	**W16:** The 2nd Workshop on Innovative technologies for enhancing interactions and learning motivation **Chair:** Jerry Chih-Yuan Sun, National Chiao Tung University, Taiwan; Sherry Yu-Hua Chen, National Central University, Taiwan; Hui-Chun Chu, Soochow University, Taiwan; Shih-Jou Yu, National Chiao Tung University, Taiwan #W16-02 Unforeseen Impediments Emerging in the Process of Flipped Learning: A Lesson Learned in FIBER (Morris Siu-Yung Jonga, Gaowei Chenb, Vincent Tamc, Yichao Jianga, & Mengyuen Chena) #W16-03 Designing Metacognitive and Motivation Tutor: A Pedagogical Agent to Facilitate Learning in Blended-Learning Environment in A Higher Education Context (Ati Suci Dian MARTHA, Harry Budi SANTOSO, Kasiyah JUNUS, & Heru SUHARTANTO) #W16-04 Incorporating Farming Feature into MEGA World for Improving Learning Motivation (Zhong-Xiu LU, Maiga CHANG, Rita KUO, & Vivekanandan KUMAR) #W16-05 Students' Conceptions of Interactive Spherical Video-based Virtual Reality Supported Chinese Writing Learning (Mengyuan CHEN, Morris Siu-Yung JONG, Ching-Sing CHAI, & Xiaohua ZHOU)	**ROOM 101**

December 3 (Tuesday)		
13:20 ~ 16:10 **14:20 ~ 14:40** **Coffee** **Tea break**	#W16-06 Development of Augmented Reality-Based Learning Package for Learning Network Topology via STAD Process (Totsaporn NAKA and Nadh DITCHAROEN) #W16-08 Designing an IoT-Based 3D Pop-Up Book to Engage Children in English Vocabulary Learning (Huai-Hsuan HUANG, Vivien LIN, Yu-Fen YANG, & Nian-Shing CHEN) #W16-09 The Effect of an Immersive Virtual Reality Interactive Feedback System on University Students' Situational Interest and Learning Achievement: The Case of a Pour Over Coffee Brewing Lesson (Shih-Jou YU, Yu-Ling HSUEH, Jerry Chih-Yuan SUN, & Hao-Ze LIU) #W16-10 A Museum Guiding and Learning System Based on Augment Reality and Wearable Technology (Huai-Ling Chang and Kai-Yi Chin)	**ROOM 101**
	W04: The 7th Workshop on Technology-Enhanced STEM Education (TeSTEM Workshop) **Chair:** Chia-Ching Lin, National Kaohsiung Normal University, Taiwan; Niwat Srisawasdi, Khon Kaen University, Thailand; Ying-Tien Wu, National Central University, Taiwan; Patcharin Panjaburee, Mahidol University, Thailand **W03:** Emerging Technologies for Teachers Professional Development at Scale **Chair:** Michelle Banawan, Ateneo de Davao University, Philippines; Ma. Mercedes Rodrigo, Ateneo de Manila University, Philippines; Cher Ping Lim, University of Hong Kong, China #W04-01 Effects of the Interdisciplinary Robotic Game to Elementary School Students' Abilities of Computational Thinking and STEM (Hsin-yin HUANG, Ju-ling SHIH, Shu-hsien HUANG, Jyh-Chong LIANG) #W04-02 Enhancing STEM Knowledge and Skills by Making Electronic Sound Synthesizer based on TPACK Model (Chih-Chien Hu, Hui-Chin Yeh & Nian-Shing Chen) #W04-03 Malaysian Students' Career Interest and Perception towards STEM Programmes and Strategies (Tiny Chiu Yuen TEY, Priscilla MOSES, Phaik Kin CHEAH & Su Luan WONG) #W04-06 Learning Archaeoastronomy in Temples with STEM-focused Mobile Learning Approach (Jintana WONGTA, Charoenchai WONGWATKIT, Chitphon YACHULAWETKUNAKORN, Ratthakarn NA PHATTHALUNG, Cherdsak SAELEE, Mullika TAWONATIWAS) #W04-09 Designing Learning Environment to Encourage the Engineering Design in the setting of FLIPPED Classroom for Design and Technology Courses (Nakarin NIMMA, Issara KANJUG) #W04-11 An Investigation of Vocational Students' Attitude towards STEM Robotic Activities (Sasithorn CHOOKAEW, Chaiyaporn SILAWATCHANANAI, Santi HUTAMARN, Supachai HOWIMANPORN , Warin SOOTKANEUNG & Charoenchai WONGWATKIT) #W04-12 An Online Personalized Learning System with Ongoing Learning Experience Adaptation: A Prototype System for STEM Discipline (Charoenchai WONGWATKIT, Patcharin PANJABUREE & Sasithorn CHOOKAEW)	**ROOM 102**

December 3 (Tuesday)		

13:20 ~ 16:10
 	
14:20 ~ 14:40
Coffee
Tea break
	#W04-13 Probing Digital Game-Based Science Learning Experience through Eye-Tracking
	    (Bo-Yuan CHENG, Hung-Yuan WANG, Chung-Yuan HSU, Guo-Li CHIOU & Meng-Jung TSAI)
	#W03-02 The Development of A Teacher's Guide for English Proficiency Games
	    (Monica MORENO, Dominique Marie Antoinette MANAHAN, Marika Gianina FERNANDEZ,
	    Jose Isidro BERAQUIT, Nicole BUGAYONG & Ma. Mercedes T. RODRIGO)
		ROOM 102

	W06: The 10th International Workshop on Innovative Designs for Mobile and Ubiquitous Learning. 1:1 and Beyond
	Chair: Noriko UOSAKI, Osaka University, Japan; Ivica Boticki, University of Zagreb, Croatia; Lung-Hsiang Wong, National Institute of Education, Nanyang Technological University, Singapore; Yanjie Song, The Education University of Hong Kong, Hong Kong; Kousuke Mouri, Tokyo University of Agriculture and Technology, Japan
	#W06-01 A System for Finding and Improving the Relevant Contents of Digital Textbooks based on Quizzes' Contents
	    (Lingyu LI, Noriko UOSAKI, Kousuke Mouri, Chengjiu YIN)
	#W06-02 Supporting Japanese Language Learners with an Onomatopoeia Learning site
	    (Noriko UOSAKI, Pengcheng DAI, Hye Rin KONG, Jacky Chun Kit LAM, and Mehrasa ALIZADEH)
	#W06-03 Supporting ubiquitous language learning with object and text detection technologies
	    (Kousuke Mouri, Noriko UOSAKI, Chengjiu YIN, Atsushi Shimada, Mohammad Nehal Hasnine, Keiichi Kaneko, Hiroaki Ogata)
	#W06-05 Enhancing Hong Kong Secondary Students' English Grammar Learning and Collaborative Problem-solving Skills with Productive Failure Instructional Design in MCSCL Environment
	    (Yanjie SONG, Yin YANG)
	#W06-06 Crossing border: Mobile technologies integrating into STEM activity in and out of classroom
	    (Daner SUN, Chee-Kit LOOI)
		ROOM 103

	Early Career Workshop (ECW) **Chair:** Morris JONG, The Chinese University of Hong Kong, Hong Kong; Jon Mason, Charles Darwin University, Australia; Ma. Mercedes T. Rodrigo, Ateneo de Manila University, Philipines **Session 1 (13:20 – 14:20)** Introduction by the Chairs Advisor 1: Joke VOOGT (Academic Survival Tips 1) Advisor 2: Hiroaki OGATA (Academic Survival Tips 2) Presenter 1: Jenilyn AGAPITO (An Investigation of the Impact of Gamification on Novice Programmers' Achievement and Learning Experience) **Session 2 (14:40 – 17:10)** Advisor 3: Elizabeth KOH (Academic Survival Tips 3) Presenter 2: Kashmira DAVE (University Teachers Designing for Active Learning) Presenter 3: Biyun HUANG (An Interactive Canvas of the Ideation Process in STEM Education) Presenter 4: Christine Lourrine TABLATIN (Exploring Common Code Reading Strategies in	**ROOM 104**

December 3 (Tuesday)			
13:20 ~ 16:10 **14:20 ~ 14:40** **Coffee** **Tea break**	Debugging) Presenter 5: Joey HUANG (Studying Computational Thinking through Collaborative Design Activities) Round-Table Discussion Facilitated by the Chairs (How to Build up a Good Academic Profile)		**ROOM 104**
	Doctoral Student Consortium (DSC) **Chair:** Weiqin Chen, Oslo Metropolitan University, Norway; Tatsunori Matsui, Waseda University, Japan; Ulrich Hoppe, University of Duisburg-Essen, Germany **13:20-14:20 Session 3** **Chair:** Weiqin Chen, Oslo Metropolitan University, Norway **Mentor:** Chen-Chung Liu, National Central University, Taiwan; Chengjiu Yin, Kobe University, Japan DSC-03 Can "Stag-and-Hare Hunt" Behavior be Modeled using Interaction Data from a Mobile-Supported Collaborative Learning Application? (Rex P. Bringula, Ateneo de Manila University, Philippines) DSC-07 Reciprocal Kit Build Concept Map: An Activity Designed to Encourage Learning at Boundary in Collaborative (Situation Lia Sadita, Hiroshima University, Japan) DSC-13 Understanding and Improving Learners' Feedback Seeking Behavior (Narasimha Swamy, Indian Institute of Technology, India) **14:40-16:00 Session 4** **Chair:** Weiqin Chen, Oslo Metropolitan University, Norway **Mentor:** Akihiro Kashihara, The University of Electro-Communications, Japan; Marc Jansen, Ruhr West University of Applied Sciences, Germany; Mina C. Johnson, Arizona State University, USA DSC-04 The Effect of Digital Game-Base Learning on Primary School Students' Critical Thinking Skills and Environmental Literacy (Szu-Kai Tsai, National University of Tainan, Taiwan) DSC-05 Game-based Learning: Students' Critical Thinking Performance while Playing "Callisto Summit" (Kung-Hou Lin, National University of Tainan, Taiwan) DSC-06 Using Gamification to Effect Learning Behaviors in Intelligent Tutoring System (Faiza Tahir, University of Canterbury, New Zealand) DSC-08 Examining the Effects of Leaderboards in Gamified Learning Environment (Shurui Bai, University of Hong Kong, Hong Kong) **16:00-16:20 Group work**		**ROOM 105**
	Tutorial 3: Virtual World and Quests Creation on MEGA World (Multiplayer Educational Game for All) **Instructor:** Maiga Chang, Athabasca University, Canada		**ROOM 106**

December 3 (Tuesday)		
16:10 ~ 17:10	**W14:** The Applications of Information and Communication Technologies in Adult and Continuing Education **Organizers:** Xibei Xiong, Guangxi Normal University, China; Jyh-Chong Liang, National Taiwan Normal University, Taiwan; Min-Hsien Lee, National Taiwan Normal University, Taiwan #W14-01 On the Application of the Flipped Classroom in the Teaching of BTI ---Taking the Teaching of Advanced English as An Example (Xiao-Mei QIN) #W14-02 Exploring Chinese Rural Primary School Teachers' Application Competencies of Educational Technologies (Xiao-Rong YU, Di WU, hun LU, Ting CAO & Xi-Bei XIONG) #W14-03 Using Online Literature Circles to Engage EFL Students in Collaborative Learning and Its Effect on Their Self-efficacy (You SU, Chunping ZHENG) #W14-04 The Relations among Undergraduate Students' Sourcing, Anxiety, and Perceived Trustworthiness of Online Information (Tai-Hsien HOU, Kuan-Ming SHEN & Min-Hsien LEE) #W14-05 Research on College Students' Practice Behavior Model after Class of Programming Course (Fang-Jing NING, Bao-Ping LI) #W14-06 A Preliminary Investigation of the Features of the Communication Software Assisted Design Thinking Based Learning (Guan-Chen LIU, Chih-Hsiang KO)	**ROOM 101**
	W14: The Applications of Information and Communication Technologies in Adult and Continuing Education **Organizers:** Xibei Xiong, Guangxi Normal University, China; Jyh-Chong Liang, National Taiwan Normal University, Taiwan; Min-Hsien Lee, National Taiwan Normal University, Taiwan #W14-07 A Systematic Analysis of Chinese Reviews of Flipped Classroom (Meilun SHIH& Feng-Ru SHEU) #W14-08 A Systematic Literature Review of Language Learning Based on Social Media (Chang XU, Chunping ZHENG) #W14-09 A Comparison of Chinese EFL Learners' Listening Comprehension in Dictation and Dicto-comp (Hongxia CAO) #W14-10 Exploring the TCSL Teachers' Teaching Beliefs toward Their TPACK and Self-efficacy (Ching-Fang JUAN, Kuo-En CHANG · & Jyh-Chong LIANG) #W14-11 Construction and Innovation Practice of "Internet +" Professional Development Mechanism for Urban and Rural Teachers (Bei-Bei YE, Lei HE, Jian HE, Su-Ying DUAN, & Xi-Bei, XIONG) #W14-12 The Influence of English Language Learning APPs on the IELTS Exam Preparation among Adult Learners (Wei CAO & Wei NING)	**ROOM 102**

December 3 (Tuesday)		
16:10 ~ 17:10	**CUMTEL SIG's Community Building**	**ROOM 103**
	Special Interest Group (SIG) on Classroom, Ubiquitous and Mobile Technology Enhanced Learning (CUMTEL)	
	SIG Chair	
	Sun Daner, The Education University of Hong Kong, Hong Kong	
	Xiaoqing GU, East China Normal University, China	
	Tzu-Chien LIU, National Taiwan Normal University, Taiwan	
	Yanjie SONG, The Education University of Hong Kong, Hong Kong	
	Chengjiu YIN, Kobe University, Japan	
	Early Career Workshop (ECW)	**ROOM 104**
	Chair: Morris JONG, The Chinese University of Hong Kong, Hong Kong; Jon Mason, Charles Darwin University, Australia; Ma. Mercedes T. Rodrigo, Ateneo de Manila University, Philipines	
	Session 1 (1320 – 1420)	
	Introduction by the Chairs	
	Advisor 1: Joke VOOGT (Academic Survival Tips 1)	
	Advisor 2: Hiroaki OGATA (Academic Survival Tips 2)	
	Presenter 1: Jenilyn AGAPITO (An Investigation of the Impact of Gamification on Novice Programmers' Achievement and Learning Experience)	
	Session 2	
	Advisor 3: Elizabeth KOH (Academic Survival Tips 3)	
	Presenter 2: Kashmira DAVE (University Teachers Designing for Active Learning)	
	Presenter 3: Biyun HUANG (An Interactive Canvas of the Ideation Process in STEM Education)	
	Presenter 4: Christine Lourrine TABLATIN (Exploring Common Code Reading Strategies in Debugging)	
	Presenter 5: Joey HUANG (Studying Computational Thinking through Collaborative Design Activities)	
	Round-Table Discussion Facilitated by the Chairs (How to Build up a Good Academic Profile)	
	Doctoral Student Consortium (DSC)	**ROOM 105**
	Chair: Weiqin Chen, Oslo Metropolitan University, Norway; Tatsunori Matsui, Waseda University, Japan; Ulrich Hoppe, University of Duisburg-Essen, Germany	
	16:20-17:10 Group presentation and synergetic discussion	
	Chair: Weiqin Chen, Oslo Metropolitan University, Norway; Tatsunori Matsui, Waseda University, Japan; Ulrich Hoppe, University of Duisburg-Essen, Germany	
	Tutorial 3: Virtual World and Quests Creation on MEGA World (Multiplayer Educational Game for All)	**ROOM 106**
	Instructor: Maiga Chang, Athabasca University, Canada	
18:00 ~ 21:00	Welcome Reception	**Chateau Beach Resort**

BOPN: Best Overall Paper Award Nominee	F: Full Paper (25 mins presentation + 5 mins Q&A)
BSPN: Best Student Paper Award Nominee	S: Short Paper (15 mins presentation + 5 mins Q&A)
BTDPN: Best Technical Design Paper Award Nominee	ES: Extended Summary (10 mins presentation + 5 mins Q&A)

December 4 (Wednesday)		
09:00~10:00	**Opening Ceremony**	**Howard Hall**
10:00~10:20	**Coffee/Tea break**	
10:20~11:20	**Keynote Speaker** J. M. (Joke) VOOGT, University of Amsterdam, the Netherlands **Title:** Preparing learners for living and working in the digital age **Session Chair:** Chee Kit LOOI, National Institute of Education, Singapore	**Howard Hall**
11:20~12:20	**IPC Meeting**	**Howard Hall**
	TELL-1 **Chair:** Daner SUN, The Education University of Hong Kong, Hong Kong 133S Effects of Learning Activities Based on Augmented Reality on Students' Understanding and Expression in an English Class Yang Yang, Shumin Wu, Dantong Wang, Yaohua Huang and Su Cai 167S Developing an Integrated system of Robots and Toys with Internet of Things for Children's Language Development Ya-Wen Chenng, Yuping Wang, Ming-Rong Liang, Nian-Shing Chen and Ya-Fei Yang 200S Automatic Vocabulary Study Map Generation by Semantic Context and Learning Material Analysis Brendan Flanagan, Mei-Rong Alice Chen, Louis Lecailliez, Rwitajit Majumdar, Gökhan Akçapınar, Patrick Ocheja and Hiroaki Ogata	**ROOM 103**
	CUMTEL-1 **Chair:** Chengjiu YIN, Kobe University, Japan ES-C4-4 What are the most important predictors of Middle School Students' Online Academic Help-seeking Behaviors? Ling Chen, Ting-Ting Zhu ,Meng-Qi Pan ES-C4-7 A Case Study on How Children Develop Computational Thinking Collaboratively with Robotics Toys Kay Yong Khoo 067F Research on the Influence of Robot Teaching on the Creativity of Primary and Secondary School Students under the Background of STEM Education Zhang Jiangxiang, Fangting JIANG and Liu Chu	**ROOM 104**
	CSCL/LS-1 **Chair:** Elizabeth KOH, National Institute of Education, Nanyang Technological University, Singapore 131S How shared concept mapping facilitates explanation activities in collaborative learning: An experimental investigation into learning performance in the context of different perspectives Shigen Shimojo and Yugo Hayashi	**ROOM 105**

December 4 (Wednesday)		
11:20~12:20	192S A Crowd-Programming Approach for Computational Thinking Education Nguyen-Thinh Le, Christopher Krizanovic and Niels Pinkwart 206S Using Knowledge Forum to Support the Development of STEAM Literacies Leanne Ma and Thelma Akyea	**ROOM 105**
	PTP-1 **Chair:** Prof. Ivica Botički, University of Zagreb, Croatia 149F(BOPN) Co-Designing Multimodal Pedagogical Content Knowledge with Indonesian Teachers Hyo-Jeong So, Ching Sing Chai, Nur Arifah Drajati, Uma Natarajan, Hyeran Lee and Yue Wang 207F(BSPN) The influences on online teaching practice Deniese Cox and Sarah Prestridge	**ROOM 106**
12:20~13:20	**Lunch break**	
13:20~14:20	**Theme Speaker** Prof. Yuichi ONO, University of Tsukuba, Japan **Title:** Flipped-classroom course model with ICT support to activate discussion in foreign language classrooms **Session Chair:** Ting-Chia HSU, National Taiwan Normal University, Taiwan	**Howard Hall**
	EGG-1 **Chair:** Morris JONG, The Chinese University of Hong Kong, Hong Kong 027S Analysis of Student Affect and Behavior while Playing a Mobile Game for English Comprehension Ma. Mercedes Rodrigo, Jenilyn Agapito and Dominique Marie Antoinette Manahan 044S Core Gamification of Learning Activities through a method based on Information Structure Manipulation Pedro Gabriel Fonteles Furtado, Tsukasa Hirashima and Yusuke Hayashi 047S Shape Shape Hooray: Adaptive Educational Game Associating 3D Geometric Shapes to Daily Objects Winna Mia Victoria Buenviaje, Ma. Anniela Dela Cruz and Ingrid Marie Therese Fadriquela	**ROOM 103**
	ALT/LA/PI-1 **Chair:** Mohammad Nehal Hasnine, Tokyo University of Agriculture and Technology, Japan 001S An Exercise Recommendation Method for K-12 Students Based on the Syllabus Zhizhuang Li, Zhengzhou Zhu and Teng Yang 020S An Analysis of Learning Behavior Patterns with Different Devices and Weights Chengjiu Yin, Juan Zhou, Lingyu Li, Koudai Yamaguchi, Noriko Uosaki and Hiroaki Ogata 072S Research on the Development of a Personalized Learning Assessment Model: Building Connections Between Knowledge Components and Cognitive Levels Xiaoling Peng and Bian Wu	**ROOM 105**

14:30~15:20	**TELL-2**	**Howard Hall**
	Chair: Chunping ZHENG, Beijing University of Posts and Telecommunications, China	
	038S Investigating Chinese University EFL Learners' Self-Efficacy in a Blended Learning Environment Jingjing Lian	
	197F A Turkish EFL teacher' change processes through an OPD program: a case study Behice Ceyda Songül, Ömer Delialioğlu and Çağrı Özköse Bıyık	
	AIED/ITS-1	**ROOM 103**
	Chair: Chih-Yueh CHOU, Yuan Ze University, Taiwan	
	026S Effects on Fostering Computational Thinking by Externalizing a Solution with Construction of a Problem-Solving Model Kazuaki Kojima and Kazuhisa Miwa	
	186F Using Data Mining Techniques to Assess Students' Answer Predictions Alisa Lincke, Marc Jansen, Marcelo Milrad and Elias Berge	
	CUMTEL-2	**ROOM 104**
	Chair: Noriko UOSAKI, Osaka University, Japan	
	006S Actor-Network Theory Approach Using M-Learning Technologies In The Public Senior High School As Pedagogy Mamerto Goneda, Francis Arlando Atienza, John Paul Miranda, Rolando Fajardo and Dominic Cabauatan	
	191F(BSPN) Augmented Reality in Education: Three Unique Characteristics from a User's Perspective Jule Marleen Krüger, Alexander Buchholz and Daniel Bodemer	
	CSCL/LS-2	**ROOM 105**
	Chair: Sven HEIMBUCH, University of Duisburg-Essen, Germany	
	024S Characterization of Different Instantiations of Mathematical Blindness Errol Matthew Garcia and Maria Alva Aberin	
	194F Group awareness information to support academic help-seeking Christian Schlusche, Lenka Schnaubert and Daniel Bodemer	
	SIG Leaders' Meeting	**ROOM 106**
15:20~15:40	**Coffee/Tea break**	
15:40~16:30	**Panel 2:** A Learning Theory Design for Asia in the 21st Century: Interest-Driven Creator Theory (IDC) Panel	**Howard Hall**
	Chair: Ben CHANG, National Central University, Taiwan	
	Panelists:	
	Tak-Wai CHAN, National Central University, Taiwan	
	Wenli CHEN, Nanyang Technological University, Singapore	
	Siu Cheung KONG, The Education University of Hong Kong, Hong Kong	
	Chee Kit LOOI, Nanyang Technological University, Singapore	
	Lung Hsiang WONG, Nanyang Technological University, Singapore	
	Suluan WONG, Universiti Putra Malaysia, Malaysia	
	Jon MASON, Charles Darwin University, Australia	
	Ju-Ling SHIH, National Central University, Taiwan	

15:40~16:30	**TELL SIG's Community Building**	**ROOM 101**
	Special Interest Group (SIG) on Technology Enhanced Language Learning (TELL)	
	SIG Chair	
	Ting-Chia Hsu, National Taiwan Normal University, Taiwan	
	Goda Yoshiko, Kumamoto University, Japan	
	Vivian Wen-Chi Wu, Asia University, Taiwan	
	Wen Yun, National Institute of Education, Nanying Technological University, Singapore	
	ALT/LA/PI-2	**ROOM 102**
	Chair: Huang-Yao Hong, National Chengchi University, Taiwan	
	ES-C3-1 Comparison between Self-awareness of Academic Procrastination and Actual Learning Activity	
	Yuna Ishii, Izumi Horikoshi, Yasuhisa Tamura	
	ES-C3-2 Visualizing the language of teamwork	
	Elizabeth Koh, Simon Yang, Dhivya Suresh, Yi Huan Tee, Claire Lee	
	193F Towards Sustainable Learning Materials for MOOCs in Poor Network Environments	
	Ahmed Shams and Christoph Meinel	
	015F Simulation of Online Learning Interaction Relation Network Based on BA Model	
	Peng Zhou, Huan Li, Meiyi Guo, Chenchen Shang and Di Wu	
	185S E-book Learner Behaviors Difference under two Meaningful Learning Support Environments	
	Jingyun Wang, Atsushi Shimada and Fumiya Okubo	
	120S Identifying Reading Styles from E-book Log Data	
	Ivica Boticki, Hiroaki Ogata, Karla Tomiek, Gökhan Akçapınar, Brendan Flanagan, Rwitajit Majumdar and Mohammad Nehal Hasnine	
	AIED/ITS-2	**ROOM 103**
	Chair: Tomoko KOJIRI, Kansai University, Japan	
	102S Towards Adaptive Provision of Examples During Problem Solving	
	Faiza Tahir, Tanja Mitrovic and Valerie Sotardi	
	116S Can EEG signal predict learners' perceived difficulty?	
	Aman Kumar, Pankaj Chavan and Ritayan Mitra	
	123S Identifying Significant Indicators of Eye-movement and EEG-based Attention to Explore Predictive Effectiveness on Reading Performance	
	Song Lai, Bingbing Niu, Jiaqi Liu and Fati Wu	
	160F(BSPN) Classification of Emotions in Programming from Face and Log Features Using Representative Intervals	
	Thomas James Tiam-Lee and Kaoru Sumi	
	198S Modeling Video Viewing Styles with a Probabilistic Mode Switching	
	Hiroaki Kawashima, Kousuke Ueki and Kei Shimonishi	
	CSCL SIG's Community Building	**ROOM 104**
	Special Interest Group (SIG) on Computer Supported Collaborative Learning (CSCL) and Learning Sciences	
	SIG Chair	
	Chew Lee Teo, National Institute of Education, Singapore	

15:40~16:30	Gaowei Chen, Hong Kong University, Hong Kong	**ROOM 104**
	CUMTEL-3	**ROOM 105**
	Chair: Daner SUN, The Education University of Hong Kong, Hong Kong SAR, China	
	054S Analysis of Current Situation of Classroom Interactive Teaching Based on Mobile Devices: A Case Study of Middle School Mathematics Classroom Teaching Jingwen Pan, Difei Wang and Mian Liu	
	126F(BOPN, BTDPN) Geneticus Investigatio : A Classroom-Based Technology-Enhanced Learning Environment for Problem-solving Process Skills in Genetics Anurag Deep, Sahana Murthy and Jayadeva Bhat	
	153S Multimodal Recording System for Collecting Facial and Postural Data in a Group Meeting Yusuke Soneda, Yuki Matsuda, Yutaka Arakawa and Keiichi Yasumoto	
	178S Study of Augmented Reality Interaction Mediums towards Collaboratively Solving Open-Ended Problems Pratiti Sarkar, Prabodh Sakhardande, Utsav Oza and Jayesh Pillai	
	196S Supporting Job-hunting Students to Learn Job-hunting Related Terms with SCROLL eBook and InCircle Noriko Uosaki, Kousuke Mouri, Takahiro Yonekawa, Chengjiu Yin and Hiroaki Ogata	
	EGG SIG's Community Building Special Interest Group (SIG) on Educational Gamification and Game-based Learning (EGG) **SIG Chair** Morris Jong, The Chinese University of Hong Kong (Hong Kong) Huei-Tse HOU, National Taiwan University of Science and Technology (Taiwan) Rita KUO, New Mexico Institute of Mining and Technology (USA) Niwat SRISAWASDI, Khon Kaen University (Thailand)	**ROOM 106**
16:30~17:30	**Panel 2:** A Learning Theory Design for Asia in the 21st Century: Interest-Driven Creator Theory (IDC) Panel **Chair:** Ben CHANG, National Central University, Taiwan **Panelists:** Tak-Wai CHAN, National Central University, Taiwan Wenli CHEN, Nanyang Technological University, Singapore Siu Cheung KONG, The Education University of Hong Kong, Hong Kong Chee Kit LOOI, Nanyang Technological University, Singapore Lung Hsiang WONG, Nanyang Technological University, Singapore Suluan WONG, Universiti Putra Malaysia, Malaysia Jon MASON, Charles Darwin University, Australia Ju-Ling SHIH, National Central University, Taiwan	**Howard Hall**
	ALT/LA/PI-2 **Chair:** Huang-Yao Hong, National Chengchi University, Taiwan ES-C3-1 Comparison between Self-awareness of Academic Procrastination and Actual Learning Activity Yuna Ishii, Izumi Horikoshi, Yasuhisa Tamura	**ROOM 102**

16:30~17:30	ES-C3-2 Visualizing the language of teamwork	**ROOM 102**
	Elizabeth Koh, Simon Yang, Dhivya Suresh, Yi Huan Tee, Claire Lee	
	193F Towards Sustainable Learning Materials for MOOCs in Poor Network Environments	
	Ahmed Shams and Christoph Meinel	
	015F Simulation of Online Learning Interaction Relation Network Based on BA Model	
	Peng Zhou, Huan Li, Meiyi Guo, Chenchen Shang and Di Wu	
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	Jingyun Wang, Atsushi Shimada and Fumiya Okubo	
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	Ivica Boticki, Hiroaki Ogata, Karla Tomiek, Gökhan Akçapınar, Brendan Flanagan, Rwitajit Majumdar and Mohammad Nehal Hasnine	
	AIED/ITS-2	**ROOM 103**
	Chair: Tomoko KOJIRI, Kansai University, Japan	
	102S Towards Adaptive Provision of Examples During Problem Solving	
	Faiza Tahir, Tanja Mitrovic and Valerie Sotardi	
	116S Can EEG signal predict learners' perceived difficulty?	
	Aman Kumar, Pankaj Chavan and Ritayan Mitra	
	123S Identifying Significant Indicators of Eye-movement and EEG-based Attention to Explore Predictive Effectiveness on Reading Performance	
	Song Lai, Bingbing Niu, Jiaqi Liu and Fati Wu	
	160F(BSPN) Classification of Emotions in Programming from Face and Log Features Using Representative Intervals	
	Thomas James Tiam-Lee and Kaoru Sumi	
	198S Modeling Video Viewing Styles with a Probabilistic Mode Switching	
	Hiroaki Kawashima, Kousuke Ueki and Kei Shimonishi	
	CUMTEL-3	**ROOM 105**
	Chair: Daner SUN, The Education University of Hong Kong, Hong Kong SAR, China	
	054S Analysis of Current Situation of Classroom Interactive Teaching Based on Mobile Devices: A Case Study of Middle School Mathematics Classroom Teaching	
	Jingwen Pan, Difei Wang and Mian Liu	
	126F(BOPN, BTDPN) Geneticus Investigatio : A Classroom-Based Technology-Enhanced Learning Environment for Problem-solving Process Skills in Genetics	
	Anurag Deep, Sahana Murthy and Jayadeva Bhat	
	153S Multimodal Recording System for Collecting Facial and Postural Data in a Group Meeting	
	Yusuke Soneda, Yuki Matsuda, Yutaka Arakawa and Keiichi Yasumoto	
	178S Study of Augmented Reality Interaction Mediums towards Collaboratively Solving Open-Ended Problems	
	Pratiti Sarkar, Prabodh Sakhardande, Utsav Oza and Jayesh Pillai	
	196S Supporting Job-hunting Students to Learn Job-hunting Related Terms with SCROLL eBook and InCircle	
	Noriko Uosaki, Kousuke Mouri, Takahiro Yonekawa, Chengiju Yin and Hiroaki Ogata	

16:30~17:30	**PTP-2**	**ROOM 106**
	Chair: Prof. Marc Jansen, University of Applied Sciences Ruhr West, Germany & Linnaeus University, Sweden	
	029S Relationship between Parents' Perceptions of Programming Education and Their Emotional and Behavioral Outcomes	
	Siu Cheung Kong and Yi-Qing Wang	
	037S Supporting Teachers in Group Work Formation and Analytics	
	Liang Changhao, Ivica Boticki and Hiroaki Ogata	
	117S Contextualized Online Courses: A Scaling of in-service Teacher Professional Development in ICT Integration in Tanzania	
	Lucian Vumilia Ngeze and Sridhar Iyer	
18:00~23:00	APSCE EC meeting	**Formosa Hall**

December 5 (Thursday)		
09:00~10:00	**Keynote Speaker** Stephen J.-H. YANG, National Central University, Taiwan **Title:** Precision education: new challenges for AI in education **Session Chair:** Tak-Wai CHEN, National Central University, Taiwan	**Howard Hall**
10:00~10:20	**Coffee/Tea break**	
10:20~11:20	**Theme Speaker** Prof. Bodong CHEN, University of Minnesota, USA **Title:** Creating Conditions for Knowledge Building for the Public Good **Session Chair:** Chew Lee TEO, Nanyang Technological University, Singapore	**ROOM 103**
	AIED/ITS SIG's Community Building Special Interest Group (SIG) on Artificial Intelligence in Education (AIED) / Intelligent Tutoring Systems (ITS) **SIG Chair** Ma. Mercedes T. RODRIGO, Ateneo de Manila University, Philippines Michelle P. BANAWAN, Ateneo de Davao University, Philippines Tomoko KOJIRI, Kansai University, Japan Nguyen-Thinh LE, Humboldt-Universitat zu Berlin, Germany Thepchai SUPNITHI, National Electronics and Computer Technology Center, Thailand	**ROOM 104**
	Theme Speaker Prof. Xiaoqing GU, East China Normal University, China **Title:** Embrace data intelligence in designing for the e-Schoolbag: Addressing the 1:1 challenges **Session Chair:** Chengjiu YIN, Kobe University, Japan	**ROOM 105**
11:20~12:20	**Panel 1:** Assessments for Computational Thinking in Primary and Secondary Schools **Chair:** Siu Cheung KONG, The Education University of Hong Kong, Hong Kong Chee Kit LOOI, Nanyang Technological University, Singapore **Panelists:** Ting-Chia HSU, National Taiwan Normal University, Taiwan Ju-Ling SHIH, National Central University, Taiwan	**Howard Hall**

	ALT/LA/PI-3
	
	Chair: Brendan Flanagan, Kyoto University, Japan
	005F Contingency Theory of Adaptive Practices Through the Lens of Eye Trackers
	    Tang Wee Teo and Seng Chee Tan
	202F Propositional Level Analysis of Collaborative Learning with Kit-Build Concept Map
	    Yusuke Hayashi, Toshihiro Nomura and Tsukasa Hirashima
		ROOM 103

	EGG-2
	
	Chair: Niwat SRISAWASDI, Khon Kaen University, Thailand
	012S Drug Defense: A Mobile Game for Prevention of Alcohol Abuse
	    Divine-Kia Tan, Rodrigo Emmanuel Roy, Jose Rafael Lasala, Anton Gabriel Yap, Ma.
	    Mercedes Rodrigo, Walfrido David Diy and Ma. Regina Hechanova
		ROOM 104

December 5 (Thursday)		
11:20~12:20	013S The Effects of Virtual Reality System Applied to Shooting Training Course for Senior High School Students Yi-Cheng Liao, Hao-Chiang Koong Lin, Po-Chun Kuo and Kuan-Yu Lin 061S Integrating Computational Thinking with Digital Storytelling to Enhancing Expression Ability Chih-Kai Chang and Shin-Yu Tai	**ROOM 104**
	CUMTEL-4 **Chair:** Longkai WU, National Insitute of Education, Nanyang Technological University, Singapore 043S A Semantic Tag-based enhanced Learning Recommendation approach for enhancing student learning experiences Tien-Yu Hsu, Jun-Ming Chen and Hsin-Yi Liang 051S Designing Pre-test Questions as Phone Notifications: Studying the Effects of a Mobile Learning Intervention. Ingrid Yvonne Herras, Don Romielito Abanes, Nico Del Rosario and Jonathan Casano 053S MOOD: A Mobile Phone-enabled Educational Data Collection Platform Peiyan Yuan, Amei Du, Yongbo Li, Xiaoyan Zhao, Chuan Wang and Xiaodong Wang	**ROOM 105**
12:20~13:20	**Lunch break**	
13:20~14:20	**Keynote Speaker** Mina C. JOHNSON, Arizona State University, USA **Title:** VR, Augmented, and Mixed Realities (XR) for STEM and Game-based Learning: Focus on Design **Session Chair:** Maiga CHANG, Athabasca University, Canada	**Howard Hall**
14:30~15:20	**ALT/LA/PI-4** **Chair:** Rwitajit Majumdar, Kyoto University, Japan 101F(BOPN) Do my students understand? Automated identification of doubts from informal reflections Siaw Ling Lo, Kar Way Tan and Eng Lieh Ouh 138S Using Clickstream to Understand Learning Paths and the Network Structure of Learning Resources: Using MOOC as an Example Ming Gao, Jingjing Zhang, Di Sun and Jiang Zhang	**ROOM 103**
	EGG-3 **Chair:** Rita KUO, New Mexico Tech, USA 081S A mind-mapping guide based on Unified Modeling Language for developing educational role-playing games Ahmed Tlili, Mouna Denden, Fathi Essalmi, Mohamed Jemni, Kinshuk, Nian-Shing Chen, Maiga Chang and Ronghuai Huang 114F Effects of game-based learning on informal historical learning: A learning analytics approach Xuanqi Feng and Masanori Yamada	**ROOM 104**

14:30~15:20	**CUMTEL-5**	**ROOM 105**
	Chair: Jingyun WANG, Kyushu University, Japan	
	021S Proposal for Deviceless Learning Environments Instead of Environments Using Smart Devices Kozo Mizutani 122F Influence of Financial Course on Eighth Grade Students' Financial Concepts, Math Motivation, Math Anxiety in Taiwan Yu-Ching Hsu, Mei-Wen Nian, Chang-Hsuan Yang, Yuan-Hsuan Lee and Jiun-Yu Wu	
	CSCL/LS-3	**ROOM 106**
	Chair: Daniel BODEMER, University of Duisburg-Essen, Germany	
	057F(BSPN) Reciprocal Kit Build Approach for Peer-to-peer Communication: Relationship between Similarities on Knowledge, Transfer of Knowledge, and Affective Responses Lia Sadita, Tsukasa Hirashima, Yusuke Hayashi, Pedro Gabriel Fontales Furtado, Kasiyah Junus and Harry B. Santoso 071S How to Measure the Collaborative Problem-solving Competency Based on Conversational Agent Ge Wang, Bian Wu and Yiling Hu	
15:20~15:40	**Coffee/Tea break**	
15:40~16:30	**Panel 3:** Questions, Design, Indicators for CSCL	**ROOM 103**
	Chair: Leanne Ma, University of Toronto, Canada **Panelists:** Chew Lee TEO, Nanyang Technological University, Singapore Bodong CHEN, University of Minnesota - Twin Cities, USA Lung Hsiang WONG, Nanyang Technological University, Singapore **Discussant:** Elizabeth KOH, Nanyang Technological University, Singapore	
	EGG-4	**ROOM 104**
	Chair: Ming-Puu CHEN, National Taiwan Normal University, Taiwan	
	108F(BTDPN) Effectiveness of using an Immersive and Interactive Virtual Reality Learning Environment to Empower Students in Strengthening Empathy and Mastery Learning Rhodora Abadia, James Calvert and Ratna Dasika 136F Examining the effect of gamification in Information Science, Computer and Engineering Education: A meta-analysis of student learning performance Shurui Bai, Khe Foon Hew and Biyun Huang	
	CUMTEL-6	**ROOM 105**
	Chair: Jerry Chih-Yuan SUN, National Chiao Tung University, Taiwan	
	ES-C4-3 A Pilot Usability Evaluation for GRACE: An Online Annotation and Student Clustering Platform Miao-Han Chang, Rita Kuo, Fathi Essalmi, Maiga Chang, Vive Kumar, & Hsu-Yang Kung	

15:40~16:30	014S The Pilot Implementation using an Adapted Technology Acceptance Model to Evaluate an Innovative Use of Smartphone for Scientific Investigation Programme in Tertiary Education Siew Wei Tho, Tien Tien Lee, Sadiah Baharom, Faridah Lisa Supian, Nurul Syafiqah Yap Abdullah and Nurul Aina Syakirah Zainal Abidin 105F Research on the Impact of e-Schoolbag on Students' Development: from the Perspective of Personal Learning Skills Chu Liu, Jueqi Guan and Youqun Ren	**ROOM105**
	TELL-3 **Chair:** Yanjie SONG, The Education University of Hong Kong, Hong Kong 045F(BOPN) A Review of 3D Virtual Environments for Language Learning: New Teaching Practice and Research Trend Chunping Zheng, Lingyu Xu, Mengya Gao, Qianqian Cheng, Zitong Yang and Lili Wang 059S Improving Summary Writing Performance via a Theory-based Learning System Chiou Sheng Chew, Wen-Chi Vivian Wu, Norisma Idris and Er Fu Loh	**ROOM 106**
16:30~17:30	**C1: AIED/ITS** 074P Externalization Support for Hypotheses Creation Process of Discovery Learning in Biology Takuya Wada, Toya Otagaki and Tomoko Kojiri 127P Correlating Working Memory Capacity with Learners´ Study Behavior in a Web-Based Learning Platform Alisa Lincke, Daniel Fellman, Marc Jansen, Marcelo Milrad, Elias Berg and Bert Jonsson 144P Simulatable Open Learner Models of Core Competencies for Setting Goals for Course Performance Chih-Yueh Chou, Wen-Chieh Chih, Shu-Fen Tseng and Zhi-Hong Chen 155P Investigating Functional Fixedness among Novice Student Programmers May Marie P. Talandron-Felipe and Kent Levi A. Bonifacio WIPP-21 Knowledge-based recommendation system for teaching thinking computing in primary level students Julio VERA, Eduardo DE RIVERO, Christian CONDORc, Vidal SONCCO, Gustavo SUERO & Klinge VILLALBA WIPP-22 Multi-label search platform for open educational resources based on purposes learning Julio Vera-Sancho, Gustavo Suero-Soto ,Lushianna Tejada & Klinge Villalba **C2: CSCL/LS** 018P Surveying the Relationships Between Students' Epistemic Curiosity and Their Online Academic Help Seeking Behaviors in Higher Education Kun-Hung Cheng 036P The Role of Technology Identity among Students in Rural Areas using a Web-based Tutoring System May Marie P. Talandron-Felipe 069P Proposing Curriculum and Learning Environment Development for Global Liberal Arts Education Incorporating Future Work Skills Tosh Yamamoto, Juling Shih, Chris Pang and Benson Ong	**Poster/WIPP**

16:30~17:30	107P Patterns of Student Socialised Learning Behaviour within Technology-supported Socialised Learning Contexts Hanyuning Lin and Mathew Pryor	Poster/WIPP

110P Investigating the effects of cognitive style on blended museum learning

Tien-Yu Hsu, Hsinyi Liang and Jun-Ming Chen

161P Development of an Interactive Learning Module for Visualizing Self-Regulated Learning Skills

Harry B. Santoso and Luthfi Kurnia Putra

172P Investigating STEM-based Learning Package for Enhancing Programming and Problem Solving Skills

Phiraphong Promjan and Nadh Ditcharoen

WIPP-11 Grounding Support for Effective Collaborative Learning

Lydia HARBARTH, Melanie ERKENS, Daniel BODEMER

WIPP-18 Comparison between International and Korean CSCL Research

Ji-Yeon JEONG, Su-Jong SEO & Heisawn JEONG

C3: ALT/LA/PI

022P Application of Programming Learning Support System to Object-Oriented Language

Satoru Kogure, Kento Ogasawara, Koichi Yamashita, Yasuhiro Noguchi, Tatsuhiro Konishi and Yukihiro Itoh

056P Reflection on Practice using Learning Analytics – Case Studies of LEAF platform

Rwitajit Majumdar, Jayakrishnan Warriem, Hiroyuki Kuromiya, Gökhan Akçapınar, Brendan Flanagan and Hiroaki Ogata

060P Extending Program Visualization System Based on Teacher's Intent of Instruction to Support Learning Dynamic Data Structures

Koichi Yamashita, Yuta Hiramatsu, Satoru Kogure, Yasuhiro Noguchi, Tatsuhiro Konishi and Yukihiro Itoh

063P An Index System of Education Information Resources Selection Based on Analytical Hierarchy Process

Jiahui Ruan, Yiling Hu and Xiaoling Peng

076P Developing E-Book Page Ranking Model for Pre-Class Reading Recommendation

Christopher C.Y. Yang, Gökhan AkÇapinar, Brendan Flanagan and Hiroaki Ogata

091P Enhancing Multi-Stakeholder Course Project Recommendations By Collaborative Learning

Yong Zheng

128P An Investigation of a Medical Terminology Learning Environment with a Robot and a Tablet

Yoko Sakamoto and Nobuhiro Sakata

154P Reconstruction of Concept Map to Promote Learners' Comprehension on New Knowledge

Didik Prasetya, Triyanna Widiyaningtyas, Tsukasa Hirashima and Yusuke Hayashi

173P Beyond Just Following Data: How Does the Visualization Strategy Facilitate Learning Analytics Design?

Jiaxin Cao and Yanjie Song

16:30~17:30	WIPP-001 Apply Zuvio system to explore student's learning effective in the biostatistics class	Poster/WIPP
	Kuo-Feng Wu, Doresses Liu	
	WIPP-07 The Effects of a Crowd-sourced Approach to Feedback-provision for Online Drill & Practice Activities	
	Fu-Yun YU, Chiao-Yi Chen	
	WIPP-14 Investigating the Strategy of Kindergarten Teachers Integrate Technology into Block Learning Area	
	Wan-Chen CHANG	
	WIPP-15 Supporting the Development of Students' Interdisciplinary Competence through the Smart Caring Technology Course	
	Calvin C. Y. LIAO	
	WIPP-17 Exploring the Possibility of Leveraging Spherical Video-based Immersive Virtual Reality in Secondary Geography Education	
	Morris Siu-Yung Jong, Chin-Chung Tsai, Haoran Xie, Frankie Kwan-Kit Wong, Vincent Tam & Xiaohua Zhou	
	WIPP-20 Teaching System for Operation of Artificial Respirator	
	Ren KANEHIRA, Yashiro ITO, Masanao KATO, Naoki MIWA & Hideo FUJIMOTO	
	C4: CUMTEL	
	023P The adoption of Facebook mobile application for managing learning	
	Edwin Theng Fung Siew and Cheng Ean Catherine Lee	
	099P Characteristics' Measurement Analysis for Developing Technology-enhanced Learning Maturity: A Qualitative Approach	
	Amalia Rahmah, Harry B. Santoso and Zainal A. Hasibuan	
	201P Integration of cloud-based mobile learning to improve students' creative thinking in a visual arts course	
	Jing-Wei Li, Iwen Huang and Hui-Yu Jiang	
	WIPP-05 Visualization of Utterance Transition in Group Discussion Using Learners' Mobile Devices	
	Junichi TAGUCHI, Izumi HORIKOSHI, Yasuhisa TAMURA	
	WIPP-08 Utilizing online community-based flipped learning approach for oral presentation	
	Yi Chun LIU , Cheng-Hsuan Lan, Chun-Wang Wei	
	WIPP-10 Video-based Competence Development in Chemistry Vocational Training	
	Melanie ERKENS, Sven MANSKE, Daniel BODEMER, H. Ulrich HOPPE, Angela LANGNER-THIELE	
	C5: EGG	
	083P Instructional Design of STEAM Education Based on Virtual Reality Technology ——Taking LEGO Bricks as An Example	
	Fangyuan Tong, Jiahui Ruan and Lingling Meng	
	087P CodAR: An Augmented Reality Based Game to Teach Programming	
	Vandit Sharma, Jeevankur Talukdar and Kaushal Kumar Bhagat	
	175P Learning English in a Mobile Urban Game: English Learners' Perceptions and Experiences	
	Yu-Feng Diana Yang	

16:30~17:30	**C6: TELL**	**Poster/WIPP**
	125P Building a Confused Character Set for Chinese Spell Checking	
	Lung-Hao Lee, Wun-Syuan Wu, Jian-Hong Li, Yu-Chi Lin and Yuen-Hsien Tseng	
	164P Reading Assistance for EFL Readers with Kitbuild Concept Map with Source-connection	
	Banni Satria Andoko, Yusuke Hayashi, Tsukasa Hirashima and Atiqah Nurul Asri	
	WIPP-02 Identifying Determining Factors of EFL Learners' Stage of Acquisition on English Prepositions	
	Takumi Muroi, Yuichi Ono	
	WIPP-03 Acquisition Order of Semantics of English Preposition by Japanese EFL Learners	
	Tomoki Kano, Yuichi Ono	
	WIPP-04 Detecting Fine-Grained Syntactic Features for Predicting Japanese EFL Learners' Writing Proficiency	
	Takeshi Kato, Yuichi Ono	
	WIPP-06 Words speak louder than Pictures! Effects of Different Media Formats of Student-provided Explanations to Online Student-generated Questions on English Language Learning	
	Fu-Yun YU, Pei-Chi Wu	
	WIPP-12 Study on English Learning Support Using Question Cards and Smart Speakers	
	Ayame KOBAYASHI, Shigeto OZAWA	
	WIPP-13 Seamless Social Networking Course Design: An Preliminary Result of Indonesia-Taiwan Workers' Online Translation Course	
	Rotua ZENDRATO, Ben CHANG	
	C7: PTP	
	052P Impact of the STEM Program on Information Technology College Students' Goals: Perspectives from the Philippines	
	Josephine de la Cuesta, Jypzie Catedrilla and Ma. Rowena Caguiat	
	104P Exploring the Effects of Socio-Economic Status, Motivation and ICT Use on Science Achievement: Findings from PISA 2015	
	Shenghua Huang, Yichao Jiang and Morris Siu-Yung Jong	
	WIPP-09 Practice on a Workshop Utilizing Web-based Investigation System for Teachers' Judgments on Students' Performance	
	Kae NAKAYA, Yuri UESAKA, Hidekazu KAMINISHI, Tatsushi FUKAYA, Kazuhiro YAMAGUCHI, Masanori NAKAGAWA	
18:00 ~ 21:00	Conference Banquet	**Howard Hall**

December 6 (Friday)		
09:00~10:00	**Keynote Speaker**	**Howard Hall**
	Hiroaki OGATA, Kyoto University, Japan	
	Title: Toward Evidence-Based Education through Learning Analytics	
	Session Chair: H. Ulrich Hoppe, University of Duisburg-Essen, Germany	
10:00~10:20	**Coffee/Tea break**	
10:20~11:20	**ALT/LA/PI-5**	**ROOM 103**
	Chair: Brendan Flanagan, Kyoto University, Japan	
	028F(BSPN) Clustering Models for Topic Analysis in Graduate Discussion Forums	
	Mallika Gokran Nitin, Swapna Gottipati and Venky Shankararaman	
	084F Teaching Analytics: A Multi-layer Analysis of Teacher Noticing to Support Teaching Practice	
	Alwyn Vwen Yen Lee, Aik Ling Tan and Seng Chee Tan	
	TELL-4	**ROOM 104**
	Chair: Wen-Chi Vivian Wu, Asia University, Taiwan	
	008S Validating an Instrument for EFL Learners' English New Media Literacy and the Relation to English Language Self-efficacy	
	Lin Luan, Yan Dong, Shasha Wang and Yin LI	
	077S Enhancing EFL College Students' Language Performance via eBook Supported Learning	
	Fang-Ying Riva Lo, Wen-Chi Vivian Wu, Cheng-Huan Chen and Jun Scott Chen Hsieh	
	086S Augmented Reality and 3D Model for Children Chinese Character Recognition - Hong Kong Primary School Education	
	Ka Yan Fung, Kwong Chiu Fung and Wai Yan WAN	
	CSCL/LS-4	**ROOM 105**
	Chair: Daniel BODEMER, University of Duisburg-Essen, Germany	
	119F(BDTPN) Flare-Fork: A pedagogy for expanding problem and solution space for design problem solving	
	Soumya Narayanan and Sahana Murthy	
	182F(BOPN) Towards an Integrated Framework of Group Awareness Support for Collaborative Learning in Social Media	
	Lisa Ollesch, Sven Heimbuch and Daniel Bodemer	
	AIED/ITS-3	**ROOM 106**
	Chair: Akihiro Kashihara, University of Electro-Communications, Japan	
	035F(BOPN) Leveraging LSTM in the fine-grained analysis of the Incubation Effect in Physics Playground	
	May Marie P. Talandron-Felipe and Ma. Mercedes T. Rodrigo	
	156F(BTDPN) Novel Writing Support System by Target Readers' Story Arc and Characters' Emotional Changes	
	Atsushi Ashida, Masataka Tokumaru and Tomoko Kojiri	
11:20~12:20	**ALT/LA/PI-6 + AIED/ITS-4**	**ROOM 103**
	Chair: Brendan Flanagan, Kyoto University, Japan	
	141S Promoting Reflection on Question Decomposition in Web-based Investigative Learning	
	Yoshiki Sato, Akihiro Kashihara, Shinobu Hasegawa, Koichi Ota and Ryo Takaoka	

December 6 (Friday)		

11:20~12:20	170S Identifying and Comparing Elementary Students' Problem-Solving Behavior Patterns Using Lag Sequential Analysis
	      Bo Yang and Baoping Li
	181S A Tool for Learning of Cognitive Process by Analysis From Exemplar Document
	      Wasan Na Chai, Taneth Ruangrajitpakorn and Thepchai Supnithi
		ROOM 103

	TELL-5
	 Chair: Longkai WU, National Insitute of Education, Nanyang Technological University, Singapore
	112F(BSPN) Enhancing Low Achievers' EFL Learning with Interactive Digital Technologies
	      Shu-Yuan Lin, Ming-Puu Chen, Li-Chun Wang, Yu-Ting Kao, Di Zou and Haoran Xie
	140F(BTDPN) Design and Development of Conjunctive word Learning Support System for Conjunctive Expression with Different Meaning Commutativity and the Experimental Use
	      Kengo Iwai, Pedro Gabriel Fonteles Furtado, Yu Ogata, Yusuke Hayashi and Tsukasa Hirashima
		ROOM 104

	CSCL/LS-5
	 Chair: Daniel BODEMER, University of Duisburg-Essen, Germany
	113S Introduction of Educational Technology Engagement Model
	      Ibrahim Hakki Bulut and Omer Delialioglu
	118S Cognitive Group Awareness Tools: versatile devices to guide learners towards discrepancies
	      Lenka Schnaubert, Sven Heimbuch, Melanie Erkens and Daniel Bodemer
	124S Scaffolding computer-supported collaborative lesson design: A spiral model
	      Wenli Chen and Jesmine S H Tan
		ROOM 105

12:20~13:20	**Lunch break**	

13:20~15:00	**ALT/LA/PI-7**
	 Chair: TBA
	079S Modeling Self-Planning and Promoting Planning Skills in a Data-Rich Context
	      Huiyong Li, Yuanyuan Yang, Rwitajit Majumdar, Gökhan Akçapinar, Brendan Flanagan and Hiroaki Ogata
	100S(BTDPN) Learning Support System for Software Component Design based on Testability
	      Yasuhiro Noguchi, Daiki Ihara, Satoru Kogure, Koichi Yamashita, Tatsuhiro Konishi and Yukihiro Itoh
	129S Exploring the Relationships between Students' Engagement and Academic Performance in the Digital Textbook System
	      Gökhan Akçapınar, Mohammad Nehal Hasnine, Rwitajit Majumdar, Brendan Flanagan and Hiroaki Ogata
		ROOM 103

	TELL-6
	 Chair: Brendan FLANAGAN, Kyoto University, Japan
	055S Multitask Learning for Chinese Grammatical Error Detection
	      Yu-Jie Zhou and Yong Zhou
	115S Diagnostic Language Assessment: Lessons Learned from Rapid Prototyping
	      Allan Nicholas and John Blake
		ROOM 104

December 6 (Friday)		

13:20~15:00	**EGG-5**
	
	Chair: Zhi-Hong CHEN, National Taiwan Normal University, Taiwan
	
	093S Dancing a treasure: A videogame to motivate young audiences toward Spanish dance
	    Alejandro Romero-Hernandez, Manuel Gonzalez-Riojo, Meriem El-Yamri and Borja Manero
	
	134S Prototyping of an Earthquake Evacuation Learning Game with VR Reproducing the Environment Familiar to Learners
	    Raiya Yamamoto, Asaka Kitaoka and Kei Inoue
	
	145S Research on Application of Steam Classroom Teaching in Primary and Middle School Based on Gamification Task Orientation——Take the fifth grade primary school campus sandbox as an example
	    Xue-Fei Ding, dong-ming QIAN and meng-ni FENG
	
	159S InNervate AR: Mobile Augmented Reality for Studying Motor Nerve Deficits in Anatomy Education
	    Margaret Cook, Austin Payne, Jinsil Hwaryoung Seo, Michelle Pine and Timothy McLaughlin
	
	162S Enhancing Computer Assembly Skill Using Virtual Computer Laboratory in Conjunction with Team Game Tournament Method
	    Acharaporn Khanthusaeng and Nadh Ditcharoen
		ROOM 105

	PTP-3
	
	Chair: Dr. Lucian Ngeze, Indian Institute of Technology Bombay, India
	
	ES-C7-5 A SySTEMic approach to Data Literacy
	    Jon Mason, Khalid Khan, Gregory Smith
	
	042F Factors Affecting the Behavioral Intention of K-12 Students to Pursue an IT Degree in a Transitioning Educational System
	    Ryan Ebardo, Laiza Limpin and Ma. Rowena Caguiat
	
	142S(BTDPN) Educational use of spherical video-based virtual reality: A preliminary study from the teacher perspective
	    Grace Chih Nuo Chao, Morris Siu-Yung Jong, Ching Sing Chai and Eric Tsun-Hin Luk
	
	168S A Preliminary Case Study of Promoting Teacher Professional Development via Post-Lesson Debriefing with the Support of Sokrates Cloud Services
	    Oskar Ku, Jen-Kai Liang, Sung-Bin Chang and Michael Wu
	
	203S Exploring Effectiveness of a Computational Making Programme on K-12 Students' Acceptances and Interdisciplinary Readiness: A Case Study in Singapore
	    Longkai Wu, Chee-Kit Looi and Sujin He
		ROOM 106

15:00~16:00	**Closing Ceremony**	**Howard Hall**