

Day 1: Monday, 25 January, 2021

Time	Room	Program	
09:00	<u>Room A</u>	Official opening ceremony	
09:10	<u>Room A</u>	Keynote speech: P. John Williams (Australia)	Chair: Kuen-Yi Lin
10:10	<u>Room A</u>	Keynote speech: Edward Reeve (United States)	Chair: P. John Williams
11:10	<u>Room A</u>	Keynote speech: John G. Wells (United States)	Chair: Edward Reeve

12:00 Lunch	Poster displays: please visit ICTE 2021 website
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13:00	<u>Room A</u>	Invited Speech: Sangbong Yi (Korea)	Chair: Leon LOH
	<u>Room B</u>	<p>ICTE-0076 Ying-Ru Meng & Chia-Chi Yeh To Explore the Effectiveness of the Virtual Reality Social Skills Courses to Improve the Abilities of Social Skills for Elementary and Junior High School Students with High Functional Autism from the Teaching points of View</p> <p>ICTE-0045 Ayaka Sahashi, Toshikazu Yamamoto, Takenori Motomura, Jun Moriyama & Ryoichi Oguma Unplugged Programming Lesson Practice in Elementary Schools: Cultivation Activities by Means of Plant Growth</p> <p>ICTE-0052 Ching-Hsing Lin, Shao-Ying Li & Yu-Jr Tsai School innovation: a case of embedding a cross-discipline CIE program structure into the course system of a rural technical school</p>	Chair: Lin Yu-Chung

Time	Room	Program	
13:00	<u>Room C</u>	ICTE-0085 Rio Prasetyo LUKODONO, Chiuhsiang Joe LIN & Iwan SANTOSA Ergonomic Based Evaluation for Online Class Application Due to Covid-19 Spread ICTE-0027 Hung-Yue Suen & Hsuan-NI Chang Compare the practice effects of self- reported vs. AI-evaluated ICTE-0083 Yen-Ting Lin Effects of a flipped learning and diagnosis approach on university students' learning performance in software engineering	Chair: Koji Ogikubo
	<u>Room D</u>	ICTE-0074 Hyungin Ham & Hyuksoo Kwon Research Trends on Technology Teachers' Practices in South Korea: Preliminary Findings ICTE-0041 Keigo Ozaki, Syota ENDO, Keisuke HAMAZAKI, Mari MATSUBARA & Yuichi HASUDA The system to prevent falling products in stores linked with earthquake early warning ICTE-0073 Youngju An, Junho Bae & Hyuksoo Kwon Effects of Teaching Technology in Korean Technology Education Classrooms: A Preliminary	Chair: Fan-Hsun Tseng
14:00	<u>Room A</u>	Keynote speech: Marc J. de Vries (the Netherlands)	
15:00	<u>Room A</u>	ICTE-0044 Chih-Jung Ku & Kuen-Yi Lin Constructing a Model of STEM Integration Behavior in Technological Competition ICTE-0057 Takekuni Yamaoka, Shinichi Okino, Shinji Matsumoto & Tetsuya Yamada Implementation and Evaluation of Interactive Learning through a STEM Investigation Based on Metacognitive Support in a Japanese High School ICTE-0077 Leung Wai-yip Five Features of Project Learning in a STEM Project	Chair: Marc J. de Vries

Time	Room	Program	
15:00	<u>Room B</u>	<p>ICTE-0026 Hung-Yue Suen & Chia-Chen Chien AI Interview Agent Used to Predict Interpersonal Communication Skill and Personality Traits Based on AVI Records and Multi-raters' Scores</p> <p>ICTE-0020 Eiichi Miyazaki, Satoshi Sakai, Taniguchi Kimihiko, Sano Shodai & Hazime Kondo Prototype of Emotional Recognition Material for Elementary School Programming Education Using Scratch and Raspberry Pi to Experience AI</p> <p>ICTE-0065 Naoki SEKO, Kimihito TAKENO & Hiromichi MAMORITA A Development of Teaching Materials incorporated AI application production</p>	Chair: Kin-Kwok Wan
	<u>Room C</u>	<p>ICTE-0064 YoungSeon Kwon & Dongwon Lee A Study on Applying Law and Regulation Knowledge in Primary Technology Education : Based on Cases of Technology Industry Development</p> <p>ICTE-0078 Sangbong Yi & Seonhee Park Comprehensive Instructional Design of Problem solving centered Lesson according to Structuring level of Problem to meet Performance Criterion of Problem Solving Capability of Transportation Technology in Technology Education in Middle School in Korea</p> <p>ICTE-0024 Wei Leong Leon LOH Sharpening Critical Thinking in Design Problem Selection in Design Project: A Perspective Based on Singapore Design and Technology</p>	Chair: Yen-Ting Lin

Time	Room	Program	
16:00	<u>Room A</u>	Invited Speech: Kin-Kwok Wan (Hong Kong)	
	<u>Room B</u>	ICTE-0056 Koji Ogikubo, Toshikazu YAMAMOTO, Norino TAKEZAWA & Jun MORIYAMA Development and class practice of the device to learn the mechanism of geothermal power generation ICTE-0016 Michihiko Fujii & Ryo Kubota Study on the Teaching Materials of the Effects of High Temperature on Growth of Rice Cultivars ICTE-0013 Kazuhiro KITAMURA, Takahiro MATSUMURA & Wataru ITO Development and teaching practice of Miller index learning materials using 3D printer ICTE-0088 Remba Yanuar Efranto & Chiuhsiang Joe Lin Assessment Model of Student Intention and Adoption to Participate on Ergonomics Program	Chair: Chih-Jung Ku
	<u>Room C</u>	ICTE-0067 Tetsuya YAMADA, Mao KOSAKA & Takekuni YAMAOKA Initial Educational Method for Computational Thinking in “The Period for Integrated Studies” ICTE-0025 Hung-Yue Suen & Jessica Li Correlation Between Sale’s Performance of Salesperson and Micro-Expressions: Taking Insurance Salesperson as an Example ICTE-0042 Keigo Ozaki, Toshiaki FURUSAWA & Yuichi HASUDA Suppression of burrs in austenitic stainless steel by applying magnetic field assisted method	Chair: Leon LOH
	<u>Room D</u>	ICTE-0046 Masanori Fukui, Jo Hagikura, Yuji Sasaki, Tsukasa Hirashima, Yoshifumi Yamashita, Masakatsu Kuroda & Jun Moriyama Development of a Block Programming Environment that Enables the Creation of Web Contents using HTML and JavaScript ICTE-0061 Michihiko Fujii & Tapiwa MKANDAWIRE DEVELOPING TEACHING MATERIALS ON THE EFFECTS OF TEMPERATURE AND FERTILISER TYPE ON YIELD AND GROWTH OF WHEAT ICTE-0082 Taisuke KOIWA, Katsumi ITO, Takamasa SUZUKI, Issei KOJIMA & Hiroyuki MURAMATSU Development of interactive content programming materials with web-enabled chatbots	Chair: Leung Wai-yip

Day 2: Tuesday, 26 January, 2021

Time	Room	Program
08:30	Technology Education in the Asia-Pacific Region ICTE Board Member Representatives	
09:30	<u>Room A</u>	Invited Speech: Kerry Lee (New Zealand)
	<u>Room B</u>	Invited Speech: Johnny J Moye (United States)
10:30	<u>Room A</u>	Invited Speech: Steve Barbato (United States)
	<u>Room B</u>	ICTE-0012 Ping YANG & Kazuya ABE Development of Ecological Friendly Apparatus for Evaluating Blade Sharpening Skill – Improvement of Technological Problem-Solving Ability for Technology Teacher Training ICTE-0039 Daichi Takahashi & Yuichi HASUDA Development of an automatic sampling machine for mosquito surveillance ICTE-0040 Masahiro IIDA, Keita HIRAYAMA & Yuichi HASUDA The voice call system to prevent falls of care recipients in the toilet
	<u>Room C</u>	ICTE-0060 Konomi FURUTA & Yasuhiro MATSUNAGA Influence of the Material and Size on the Walking Motion of the Quadrupedal Passive Walking Toy ICTE-0072 Woongbin Park & Hyuksoo KWON Research Trends and Issues of Including Computational Thinking in Science and Mathematics Education: Reviews of Research Outcomes in Republic of Korea ICTE-0018 Keita Sera & Jun Moriyama An Investigation of Students' Viewpoints and Judgmental Criteria to Evaluate the Nuclear Power Generation.
11:30	<u>Room A</u>	Keynote Speech: Philip A. Reed (United States)
12:30 Lunch	Poster displays: please visit ICTE 2021 website	

Time	Room	Program	
13:30	<u>Room A</u>	Keynote Speech: Shinichi Fujita (Japan)	
14:30	<u>Room A</u>	ICTE-0071 Yubin Lee & Hyuksoo Kwon Transition of High School Technology Education in Republic of Korea ICTE-0069 Joosoon Mo & Hyuksoo Kwon Current Status of Online Instruction in Technology Education: Technology Teachers' Voices ICTE-0005 Chikahiko YATA & Johnny J Moye Identifying current and future trends and issues facing technology education in Japan	Chair: Shinichi Fujita
	<u>Room B</u>	ICTE-0068 Nakhyun SONG Challenges of Changes from Vocational Education to Career and Technical Education in South Korea ICTE-0028 Yu-Han Chao & Yu-Hung Chien The development and evaluation of a STEM-based User-Centered Engineering Design curriculum	Chair: Bando Tetsuya
	<u>Room C</u>	ICTE-0043 Ryoichi OGUMA & Toshikazu YAMAMOTO Survey on information morals and information security knowledge and responsiveness at the stage of completing compulsory education in Japan ICTE-0055 Toshikazu Yamamoto, Arata Awazu & Kimihito Takeno Class practice related to learning support using information sharing software	Chair: Wang, Ding-Ming
15:30	<u>Room A</u>	Invited Speech: Szu-Chun Fan (Taiwan)	
	<u>Room B</u>	ICTE-0080 issei kojima, Hiroyuki muramatsu & Mitsunori Yatsuka Developing a Cognitive Scale for Ability to Solve Problems in STEM Related Subjects ICTE-0079 Sangbong Yi & Sanghyun Lim Comprehensive Instructional Design of Problem solving centered Lesson according to Structuring level of Problem to meet Performance Criterion of Problem Solving Capability of Transportation Technology in Technology Education in Middle School in Korea ICTE-0070 Jaewoo Park & Hyuksoo Kwon Pre-service Technology Teachers' Education in Republic of Korea: A Qualitative Meta-Approach	Chair: PING YANG
	<u>Room C</u>	ICTE-0062 Miyu ADACHI & Yasuhiro MATSUNAGA Development of the Rocking Wooden Toy with a Marble/Glass Ball Going Down a Slope as a Teaching Material ICTE-0075 Yasuhiro MATSUNAGA, Konomi FURUTA & Miyu ADACHI Web support for make-play-inquiry activities during long-time closure of school because of COVID-19; 'Unity in Diversity' in learning group by use of moving toys ICTE-0011 Bando, T, Tominaga, S, Chono, H, Sone, N, Fujihara, N, Yamada, T & Ito, Y Trial practices of programming education in elementary school including problem-solving by pupils	Chair: Kimihito Takeno

16:30	<u>Room A</u>	Closing ceremony
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Poster

P01	ICTE-0008	KOBIKIYA Natsumi, KONDO Takatoshi, NISHIZAKI Yasuharu & IRIE Takashi Case Study on Technology Education Using a VR Material
P02	ICTE-0009	KONDO Takatoshi, KOBIKIYA Natsumi & IRIE Takashi Development of Support Tools for Woodcraft Design using VR and AR Technology
P03	ICTE-0015	Yuji Amakawa, Kento Tsutsumi & Chikahiko Yata Programming Lesson Practice for Creating a New Sport Using Digital Contents with Networks
P04	ICTE-0048	LIM, Huiy Applying Flipped Classroom for Problem-Solving Method in learning Standardization of Transportation Technology on 8th grade
P05	ICTE-0058	Gun Hanaoka, Kazuharu Hashitsume & Shinya Tsukada Development of Germanium Umbrella Radio as a Cross-Curriculum Management Material
P06	ICTE-0059	Ting-Sheng Weng & Mu-Fen Chao Training Graphic Control Software Programming Talents via Developing Digital Math Breakthrough Games
P07	ICTE-0086	Fu-Hsing Tsai & I-Ying Hsu An Arduino-based game-design project for technology education