ICCE 2024
The 32nd International Conference on Computers in Education
MANILA, PHILIPPINES

Keynote Speakers, Theme-Based Speakers, Panels

Wednesday, November 27

10:20–11:20	**Keynote Speaker** **Getting Ready for the Age of AI: Developing Self-Regulated Learners** *Dragan GAŠEVIĆ*
11:20–12:20	**Panel-3** **Learning Languages in "Smarter" Ways: Theory-Informed Utilization of Smart Technologies in Contextualized, Authentic & Communicative Language Learning** *Lung-Hsiang WONG, Yun WEN, Vivian Wen-Chi WU, Yoshiko GODA & Ting-Chia HSU*
13:20–14:00	**Theme-Based Speaker** **How to Better Understand the Collaborative Component in Computer-Supported Collaborative Learning (CSCL): Current Landscape, Challenges and Future Prospects** *Johanna PÖYSÄ-TARHONEN*
15:20–16:50	**Panel-2** **Global Harwell in an Examination Driven Education System and an Excellence Pursuing Society: Possible? How? Better with Digital Technologies** *Fu-Yun YU, Tak-Wai CHAN, Sahana MURTHY, Su Luan WONG, Wenli CHEN, Hyo-Jeong SO & Hiroaki OGATA*

Thursday, November 28

09:00–10:00	**Keynote Speaker** **Critical Virtual Exchange for Critical Global Citizenship Education** *Mirjam HAUCK*
10:20–11:00	**Theme-Based Speakers** **In Search of Intelligent Pedagogical Content Knowledge (IPACK)** *Ching Sing CHAI* **Multi-Modal Learning Analytics for Learning Design** *Wenli CHEN*
11:00–12:00	**Panel-1** **Digital Technology for Inclusive and Equitable Quality Education** *Weiqin CHEN, Jon MASON, Faisal BADAR, Shitanshu MISHRA & Maria Mercedes T. RODRIGO*
13:00–14:00	**Keynote Speaker** **Learning from Generative AI for Cognitive and Pedagogical Advancement** *Michelle BANAWAN*

Friday, November 29

09:00–10:00	**Keynote Speaker** **Personalized Gamification Experiences: From Design to Impact** *Seiji ISOTANI*

C1: ICCE Sub-Conference on Artificial Intelligence in Education/Intelligent Tutoring System (AIED/ITS) and Adaptive Learning

Wednesday, November 27

11:20–12:20	AIED/ITS-1
58F BSPN	**The Impact of Instructional Videos Supported by AI-Driven Tutoring System on EFL Listening and Speaking** *Xiangyu TAN & Xiuyuan ZUO*
137F	**LLM-Generated Personalized Analogies to Foster AI Literacy in Adult Novices** *Cassie Chen CAO, Eason CHEN, Zoe FANG, Lydia Y CAO, Jionghao LIN & Ruizhe LI*
14:00–15:00	**AIED/ITS-2**
13S	**UniSpLLM: An Integrated Approach for Enhancing Reasoning and Education with Large Language Models** *Hanyu ZHAO, Yuzhuo WU, Yang YU, Xiaohua YU & Liangyu CHEN*
106S	**Availability and Effectiveness of Generative AI for Web-Based Investigative Learning** *Yutaka WATANABE & Akihiro KASHIHARA*
122S	**Developing a LLMs-Driven System Based on Human-AI Progressive Code Generation Framework to Assist Mathematics Learning** *Chun Yan Enoch SIT, Yin YANG, Wing Kei YEUNG & Siu Cheung KONG*
15:20–16:50	**AIED/ITS-3**
175F	**Evaluating the Performance of Copula-Based Item Response Theory Models for Interpretable Assessment** *Eduardo GUZMÁN & Eva MILLÁN*
80S	**Enhancing Diversity in Difficulty-Controllable Question Generation for Reading Comprehension via Extended T5** *Teruyoshi GOTO, Yuto TOMIKAWA & Masaki UTO*
190S	**The Effect of Feature Reliability on the Generalization of Machine Learning Models in Educational Data** *Yingbin ZHANG*
258ES	**Exploring High School Students' Transition from Traditional Search Engines to ChatGPT for Course Learning: A Push-Pull-Mooring Model Perspective** *Chien-Liang LIN, Chih-Yu YANG, Pei-Chi WU, Yu-Cheng LIN & Chi-Heng LI*
266ES	**Exploring Dialogue Patterns in Argumentation with Pre-Set ChatGPT Personas** *Seunmin EUN & Seonmin JIN*

C1: ICCE Sub-Conference on Artificial Intelligence in Education/Intelligent Tutoring System (AIED/ITS) and Adaptive Learning

Thursday, November 28

11:00–12:00	AIED/ITS-4
94F BOPN	**Predicting and Analyzing Students' Higher-Order Questions in Collaborative Problem-Solving** *Shan ZHANG, Toni V. EARLE-RANDELL, Qian SHEN, Anthony F. BOTELHO, Maya ISRAEL, Kristy Elizabeth BOYER, Collin F. LYNCH & Eric WIEBE*
120F BTDPN	**Reflection Support System with Audience Robots for Presentation Practice** *Yuya KISHIMOTO & Tomoko KOJIRI*
15:50–16:50	AIED/ITS-5
151F	**Facilitating Holistic Evaluations with LLMs: Insights from Scenario-Based Experiments** *Toru ISHIDA, Tongxi LIU, Hailong WANG & William K. CHEUNG*
126S	**Is Internal State Feedback in an E-Learning Environment Acceptable to People?** *Atsushi ASHIDA, Ryosuke KAWAMURA, Shizuka SHIRAI, Noriko TAKEMURA, Mehrasa ALIZADEH, Hideaki HAYASHI & Hajime NAGAHARA*
211ES	**Integrating Explanations in Active Video Watching** *Raul Vincent LUMAPAS, Antonija MITROVIC, Matthias GALSTER, Sanna MALINEN, Pasan PEIRIS & Jay HOLLAND*

Friday, November 29

10:20–11:10	AIED/ITS-6
238ES	**Personalized Comment Reviewing in Active Video Watching: Investigation of Learners' Cognitive Load** *Ehsan BOJNORDI, Antonija MITROVIC, Matthias GALSTER, Sanna MALINEN & Jay HOLLAND*
251ES	***AI-Driven Feedback for Enhancing Students' Mathematical Problem-Solving: The ScaffoldiaMyMaths System*** *Daner SUN, Jingyun WANG, Lan YANG, Kee-lee CHOU, Zhixuan SONG & Zhizi ZHENG*
259ES	**A Study on High School Students' Continuance Intention to Use ChatGPT for Learning Assistance: An Exploration Based on Self-Determination Theory** *Chien-Liang LIN, Tian-Yun LIN, Shi-En LIN & Yu-Chen LIN*

C2: ICCE Sub-Conference on Computer-supported Collaborative Learning (CSCL) and Learning Sciences

Wednesday, November 27

14:00–15:00	CSCL-1
31F	**Unveiling the Interplay of Students' Epistemic Emotions and Knowledge Building Activities in Design Studios** *Alwyn Vwen Yen LEE, Chew Lee TEO, Aloysius ONG & Katherine YUAN*
144F BOPN, BSPN	**MESHing Minds: Bridging the Gap Between Creativity and IoT Programming Through Collaborative Mixed Reality** *Yusuke SAKABE, Emmanuel AYEDOUN & Masataka TOKUMARU*

Thursday, November 28

14:00–15:30	CSCL-2
52S	**Students' Verbal Interaction Patterns in Computer-Supported Collaborative Learning: The Role of Individual Preparation** *Wenli CHEN, Lishan ZHENG, Mei-Yee Mavis HO, Qianru LYU, Hua HU & Zirou LIN*
88S	**Enhancing Social Learning in Active Video Watching** *Ehsan BOJNORDI, Antonija MITROVIC, Matthias GALSTER, Sanna MALINEN, Jay HOLLAND & Negar MOHAMMADHASSAN*
124S	**Rethinking Trust in Human-AI Collaboration in the Generative AI Era** *Yijie LU & Bo JIANG*
147S	**Infrastructuring for Collective Cognitive Responsibility: A Case Study of Student Knowledge Building Design Studio** *Chew Lee TEO, Aloysius ONG, Alwyn LEE, Guangji YUAN & Kennedy LOO*
148S	**Review of Different Assessment Methods Used by Online Inquiry-Based Learning Systems That Support Argumentation** *Nitesh Kumar JHA, Plaban Kumar BHOWMIK & Kaushal Kumar BHAGAT*
200S	**Investigating Secondary School Students' Academic Emotions in Data Science Learning** *Gaoxia ZHU, Chew Lee TEO, Guangji YUAN, Chin Lee KER, Aloysius ONG & Alwyn Vwen Yen LEE*

Friday, November 29

10:20–11:10	CSCL-3
185F	**Online Making-Based Learning at Scale: Towards Equity in STEM Learning** *Deeksha GAUTAM, Aditi KOTHIYAL, Rashmi SHEORAN, Neha GARG, Adithi IYER, Ashutosh BHAKUNI, Jay THAKKAR, Jyothi KRISHNAN & Manish JAIN*
99S	**Verbal Interaction Patterns in Online Collaborative Learning Design: Comparison of High Performing and Low Performing Groups** *Wenli CHEN, Lishan ZHENG, Mei-Yee Mavis HO, Hua HU & Qianru LYU*

C3: ICCE Sub-Conference on Advanced Learning Technologies (ALT), Learning Analytics and Digital Infrastructure

Wednesday, November 27

11:20–12:20	ALT-1
64F	**Proficiency Modeling in Junior High Math: Adapted Cognitive Statistical Models to E-Book Learning Contexts** *Changhao LIANG, Kensuke TAKII & Hiroaki OGATA*
98F	**An Embodied Projection Recognition System for Situated Learning to Enhance Learning Effectiveness and Self-Reflection Ability** *Hui-Ting LIU, Zi-Ting DING, Su-Hang YANG, Jian-Yu WU, Jen-Hang WANG, Po-Yao CHAO, Yung-Yu ZHUANG & Gwo-Dong CHEN*
14:00–15:00	**ALT-2**
196F BOPN	**Combining Multimodal Analyses of Students' Emotional and Cognitive States to Understand Their Learning Behaviors** *Ashwin T S, Caitlin SNYDER, Celestine E. AKPANOKO, Srigowri M P & Gautam BISWAS*
136S	**Development of Metacognitive Reflection Support System on Creative Discussion** *Toshimasa SHIMIZU, Yuki HAYASHI & Kazuhisa SETA*
149S	**Utilization of Japanese Public Educational Data by Retrieval Augmented Generation for Policy Research** *Kyosuke TAKAMI*
15:20–16:50	**ALT-3**
97F	**Analyzing Student Behavior in Viat-Map: Steps and Time as Performance Indicators** *Banni Satria ANDOKO, Vivin Ayu LESTARI, Agung Nugroho PRAMUDHITA, Amalia NURAINI, Inda Khoirun NISAK & Tsukasa HIRASHIMA*
113F	**Comparison of Learners' Self-Direction Behavior Across Contexts and Phases** *Junya ATAKE, Chia-Yu HSU, Huiyong LI, Izumi HORIKOSHI, Rwitajit MAJUMDAR & Hiroaki OGATA*
131S	**Progressive Behavior Patterns of Online Discussion at Different Circle of Self-Regulated Learning** *Shih-Hua HUANG, De-Yu SHIAU, Yung-Sian FANG & Ting-Chia HSU*
143S	**Forest/CR: Critical Paper Reading Support System** *Tomoya KII, Kazuhisa SETA & Yuki HAYASHI*

C3: ICCE Sub-Conference on Advanced Learning Technologies (ALT), Learning Analytics and Digital Infrastructure

Thursday, November 28

11:00–12:00	ALT-4
4S	**Exploring the Relationship of Personality Domains and Visual Attention Patterns in Novice Programmers** *Caren PACOL, Maria Mercedes RODRIGO & Christine Lourrine TABLATIN*
35S	**Construction of a Japanese Language Learning Support System That Enables Word Accent Learning** *Satoru KOGURE, Kazuki TOMITA, Yasuhiro NOGUCHI, Koichi YAMASHITA, Tatsuhiro KONISHI & Makoto KONDO*
41S	**Developing a Feedback Analytic Tool to Support Instructor Reflection** *Feng LIN, Chenchen LI, Rebekah Wei Ying LIM & Yew Haur LEE*
139S	**Effect of Re-Composition Concept Mapping for Sharing Reference Maps on Serial Concept Mapping: A Preliminary Study** *Rian FITRIANSYAH, Harry Budi SANTOSO, Lia SADITA, Baginda Anggun Nan CENKA, Syifa NURHAYATI, Yusuke HAYASHI & Tsukasa HIRASHIMA*
14:00–15:30	ALT-5
48F BTDPN	**Designing Recommendations for Productive Learning Habit-Building from Learning Logs** *Chia-Yu HSU, Izumi HORIKOSHI, Huiyong LI, Rwitajit MAJUMDAR & Hiroaki OGATA*
101F	**Designing Interaction Scenario for Alleviating Persistence in Learning Strategies** *So SASAKI & Akihiro KASHIHARA*
166F	**Enhancing Vocational Training Through Immersive Technology: A Study on Digital Magic Mirrors** *Jen-Hang WANG, Hung-Wei TSENG, Su-Hang YANG, Chih-Kai CHANG, Yung-Yu ZHUANG & Gwo-Dong CHEN*
145S	**Facilitating Thinking like a Historian in Open-Ended Learning Space: A White Box Approach** *Aoi MATSUURA, Yuki HAYASHI & Kazuhisa SETA*
15:50–16:50	ALT-6
91S	**Boosting Course Recommendation Explainability: A Knowledge Entity Aware Model Using Deep Learning** *Tianyuan YANG, Baofeng REN, Boxuan MA, Tianjia HE, Chenghao GU & Shin'ichi KONOMI*
191S	**Error Tolerance in Automatic Short Answer Grading with Large Language Models: The Case of Handwriting Recognition Errors** *Ziqi TAN, Yingbin ZHANG & Su MU*
209ES	**Identifying Key Indicators of Proficiency in Junior High Math: Roles of Daily Handwriting Learning Logs** *Yudai OKAYAMA, Changhao LIANG, Kensuke TAKII & Hiroaki OGATA*
267ES	**Relationship Analysis Between Procrastination Behavior and Non-Cognitive Abilities** *Yasuhisa TAMURA & Keito MORINO*

C3: ICCE Sub-Conference on Advanced Learning Technologies (ALT), Learning Analytics and Digital Infrastructure

Friday, November 29

10:20–12:00	**ALT-7/8**
70F	**Effectiveness of Information Organizing Activities After Lecture in Mathematics: A Comparison Between Kit-Build Concept Mapping and Structured Summary Writing** *Lintang Matahari HASANI, Kasiyah JUNUS, Lia SADITA, Tsukasa HIRASHIMA & Yusuke HAYASHI*
77F BSPN	**Automated Recommendations for Revising Lecture Slides Using Reading Activity Data** *Erwin D. LOPEZ Z, Cheng TANG, Yuta TANIGUCHI, Fumiya OKUBO & Atsushi SHIMADA*
40S	**Optimizing Causal Inference Approach for Exploring Shallow Reading Behavior with Generative Adversarial Networks** *Yu BAI, Fuzheng ZHAO, Wenhao WANG & Chengjiu YIN*
60S	**Exploring Linguistic Sophistication of Discussion Board Posts in University Learning Management Systems** *Michelle P. BANAWAN, Clarence James MONTEROZO & Maria Mercedes T. RODRIGO*
227ES	**Toward Contextualized Handwriting Process Analysis: Comparison Between Problem Types in Math** *Shunsuke TONOSAKI, Taito KANO, Satomi HAMADA, Izumi HORIKOSHI & Hiroaki OGATA*
13:00–14:00	**ALT-9**
9S	**Code Tracing Support Environment Based on Visualization of Cooperative Behavior of Multiple-Flows** *Yasuhiro NOGUCHI, Kotaro SUNAMA, Satoru KOGURE, Raiya YAMAMOTO, Koichi YAMASHITA & Tatsuhiro KONISHI*
90S	**Peer Feedback Feature Analysis with Large Language Models: An Exploratory Study** *Qianru LYU, Zirou LIN & Wenli CHEN*
214ES	**Relationship Between Students' Scores in Weekly Tests and Final Exam** *Satomi HAMADA, Izumi HORIKOSHI & Hiroaki OGATA*
218ES	**Exploring Reading Speed Profiles in EFL Extensive Reading** *Hatsune ICHIDATE, Yiling DAI, Brendan FLANAGAN & Hiroaki OGATA*

C4: ICCE Sub-Conference on Technology Enhanced Learning for Mobility of Learners and Learning Experiences (TEML)

formerly known as Classroom, Ubiquitous and Mobile Technology-Enhanced Learning (CUMTEL)

Wednesday, November 27

11:20–12:20	TEML-1
71F BSPN	**Linking Real-World Experiences with Course Contents: A Text Mining Approach Toward Effective "There and Back Again"** *Manabu ISHIHARA, Izumi HORIKOSHI & Hiroaki OGATA*
75F BTDPN	**Marrying Physical and Virtual Realms: An Embodied, Multi-Modal Approach to Situational Learning in Digital Reality** *Vando Gusti AL HAKIM, Yao-En CHEN, Meng-Heng LIN, Chia-Ying CHANG, Jen-Hang WANG, Chih-Kai CHANG, YungYu ZHUANG, Su-Hang YANG & Gwo-Dong CHEN*

Thursday, November 28

11:00–12:00	TEML-2
132F	**Classifying Self-Reflection Notes: Automation Approaches for GOAL System** *Zixu WANG, Chia-Yu HSU, Izumi HORIKOSHI, Huiyong LI, Rwitajit MAJUMDAR & Hiroaki OGATA*
50S	**Using Educational VR Systems to Promote Inquiry-Based Learning in Natural Science** *Shu-Ying TSAI, Zhi-Hong CHEN & Min-Hsuan WENG*
135S	**Generative Artificial Intelligence in Education: Evaluating Students' Self-Efficacy and Utilization in Their Homework** *Elanie VIZCONDE, Ma. Rowena CAGUIAT & Ethel ONG*

Friday, November 29

10:20–12:00	TEML-3/4
51F BOPN	**Low vs. High Immersion in Metaverse-Based Learning: How Pre-Service Teachers Balanced Between Instruction and Assessment in Learning Design** *Darmawansah DARMAWANSAH, Dani PUSPITASARI & Gwo-Jen HWANG*
160S	**Participatory Design of an AI Digital Textbook with Deaf and Hard-of-Hearing Students** *Ga Young LEE, Jieun CHOI, Seonhee NA & Hyo-Jeong SO*
161S	**Technology Considerations in Building Virtual Educational Avatars** *Antun DROBNJAK & Ivica BOTICKI*
194S	**Data-Driven Peer Recommendation and Its Applications in Extracurricular Learning** *Peixuan JIANG, Changhao LIANG & Hiroaki OGATA*

C5: ICCE Sub-Conference on Educational Gamification and Game-based Learning (EGG)

Wednesday, November 27

15:20–16:50	EGG-1
16F BSPN	**Design and Evaluation of the Usability of a Game-Based Learning Application for Learners with Dyslexia** *Vincent GARCIA, Arnel OCAY, Joshua PERADILLA, Mary Rose SAGUIPED & Myla Karen ARENAS*
72F	**Comparing Effects of Adaptive Gamification and One-Size-Fits-All Gamification on Students' Task Completion Process and Learning Performance** *Shurui BAI & Yingxue LIU*
162F BOPN	**Dialogue Game-Based Learning for AI Ethics Education** *Hyo-Jeong SO & Sung-Eun KIM*
125S	**Detecting Off-Task Behavior of Learners in Minecraft Using Exploration and Personalized Features** *Maricel A. ESCLAMADO & Maria Mercedes T. RODRIGO*

Thursday, November 28

14:00–15:30	EGG-2
65F BTDPN	**A Robot-Assisted Scenario Training for Students with ASD** *Ka Yan FUNG, Kwong Chiu FUNG, Tze-Leung Rick LUI, Feifan PANG, Huamin QU, Shenghui SONG & Kuen Fung SIN*
103F	**Exploring the Impact of Incorporating Digital Escape Room on Learners' Performance and Motivation in Environmental Sustainability Education** *Yu-Chao LAI & Jie-Chi YANG*
133S	**Middle School Students' Ability to Detect Lies When Interacting with an Educational AI Robot** *Ahmed SALEM & Kaoru SUMI*

Friday, November 29

13:00–14:00	EGG-3
73S	**ICCE 2024 FLOU: Evaluating the Intrinsic Motivation of Learners in Gamifying Academic Programs Through a Gamified Mobile Application** *Marl Vincent AGRAVANTE, Jeru Kian FERNANDEZ, Ma. Louisa PEREZ & Joshua MARTINEZ*
164S	**Designing an Educational Game for Facilitating Development of Media and Information Literacy** *Jun XIE, Xiang LI, Kotomi HASEGAWA, Zhichun LIU & Frank REICHERT*
262ES	**Developing a Visualized Data Guessing Game to Assess Data Literacy** *Ruei-Yi XIE & Ming-Chi LIU*

C6: ICCE Sub-Conference on Technology Enhanced Language Learning (TELL)

Wednesday, November 27

14:00–15:00	TELL-1
123F BSPN	TAMMY: Supporting EFL Translation Practice with an LLM-Powered Chatbot Steve WOOLLASTON, Brendan FLANAGAN, Patrick OCHEJA, Yiling DAI & Hiroaki OGATA
172F BTDPN	Impact of Online Video Dubbing Activities on Grade 5 Students' Pronunciation, Accuracy, and Fluency in English Speaking: An Experimental Research Min XIE & Alex Wing Cheung TSE

Thursday, November 28

15:50–16:50	TELL-2
158F BOPN	**Open Knowledge and Learner Model: Mathematical Representation and Applications as Learning Support Foundation in EFL** *Kensuke TAKII, Changhao LIANG & Hiroaki OGATA*
157S	**The Effect of LINE Chatbot with Escape Game Design on English Learning Achievement, Situational Interest, and Student Engagement** *Elva Yi-Fang LO & Jerry Chih-Yuan SUN*
112S	**Examining Augmented Reality's Influence on Pronunciation Training: Insights from PinyinGuo's Application and Comparative Avatar Testing** *Daria SINYAGOVSKAYA*

Friday, November 29

11:10–12:00	TELL-3
115S	**Improve English Pronunciation at Word Level for Thai EFL Learners in Southern Region Using End-to-End Automatic Speech Recognition** *Nattapol KRITSUTHIKUL, Kongpop BOONMA, Jirapond MUANGPRATHUB, Wasan NA CHAI & Thepchai SUPNITHI*
128S	**Investigation on the Usage Status of a Support System for Writing English Paragraph Outlines in English Classes** *Afifah ILHAM, Tomohiro KUROKI, Akira NAKANO & Hidenobu KUNICHIKA*
152S	**Mapping Morphological Patterns: A Framework for Rinconada Bikol Language Morphological Analysis and Stemming** *Tiffany Lyn PANDES & Joshua MARTINEZ*

13:00–14:00	TELL-4
14S	**Enhancing Chinese Language Education Through AI-Assisted Project-Based Learning: A Qualitative Study on Learning Values and Multimedia Skills Development** *Satoko SUGIE*
184S	**Development of a Chatbot and Evaluation of Its Effects on Learning and Intrinsic Motivation of a Public Secondary School's Spanish Language Learners** *Julian Eymard JANUBAS, Josiah Jose DEYSOLONG, Hanz Lucas ESTOPIA, Karl Mykell TABBAY & Jun Rangie OBISPO*
186S	**Enhancing Language Learning Through Multimodal AI-Driven Feedback on Picture Descriptions: An Eye-Tracking Study** *Ruibin ZHAO, Zhiwei XIE, Yipeng ZHUANG, Huixian LI, Philip L. H. YU*

C7: ICCE Sub-Conference on Practice-driven Research, Teacher Professional Development and Policy of ICT in Education (PTP)

Wednesday, November 27

11:20–12:20	**PTP-1**
24F	**Do Academic Stress and Risk Propensity Affect Behavioral Intention to Use ChatGPT Among University Students?** *Brylle SAMSON, Ronnie LURIAGA & Ryan EBARDO*
53F	**Who Is a Good Computational Thinker? Mapping Behavioral Dispositions of Middle-School Children Based on Real-Life, Algorithmic Tasks** *Shashaank V. PINNAMARAJU, Lazar TONY & Anveshna SRIVASTAVA*
15:20–16:50	**PTP-2**
61F BOPN	**Representing Learning Progression of Unguided Exercise Solving: A Generalization of Wheel-Spinning Detection** *Taisei YAMAUCHI, H. Ulrich HOPPE, Yiling DAI, Brendan FLANAGAN & Hiroaki OGATA*
6S	**Factors Contributing to the Negative Online Learning Academic Self-Concept of College Students** *Rex BRINGULA, Roman Paulo BAET, Ralph Lawrence GARCIA, Franchesca Mari MORALES, Jan Carlo RAMOS, Hanna Sophia SARMIENTO & Edmon TORRES*
7S	**Teachers' Perspectives on Integrating AI Tools in Classrooms: Insights from the Philippines** *Vanessa B. SIBUG, Vicky P. VITAL, John Paul P. MIRANDA, Emerson Q. FERNANDO, Almer B. GAMBOA, Hilene E. HERNANDEZ, Joseph Alexander BANSIL, Elmer M. PENECILLA & Dina D. GONZALES*
10S	**Research on the Dual-Pathway Impact of Artificial Intelligence Technology on Teachers' Human-Machine Collaboration** *Yujie XU & Yiling HU*
30S	**Does Learning Interest Predict Academic Performance in an Interest-Driven HyFlex Course?** *Liang Jing TEH, Su Luan WONG, Mohd Zariat ABDUL RANI, Mas Nida MD KHAMBARI & Sai Hong TANG*

C7: ICCE Sub-Conference on Practice-driven Research, Teacher Professional Development and Policy of ICT in Education (PTP)

11:00–12:00	PTP-3
19S	**Using a Teaching Framework to Identify Resilient and Persistent Teaching Practices During the Pandemic** *Ma. Monica L. MORENO, Johanna Marion R. TORRES, Timothy Jireh GASPAR, Jenilyn A. CASANO & Maria Mercedes T. RODRIGO*
92S	**Evaluating the Effectiveness of a Professional Development Course on Artificial Intelligence Literacy for Administrative Staff in Higher Education** *Siu Cheung KONG, Zoe Wai Sum MAK, Yue WU & Yin YANG*
140S	**From Textbooks to Classroom Implementation: Experience Report of Middle School Science Teachers' Pedagogy for Activity-Based Learning** *Zun Phoo MO, Sunny Prakash PRAJAPATI, Sheeja VASUDEVAN & Sahana MURTHY*
155S	**Appropriating AI-Powered Pedagogical Affordances for Vocabulary Learning** *Xinyu GUO & Yun WEN*
14:00–15:30	PTP-4
114F BTDPN	**Extraction of Important Characteristics for Data-Informed Guidance and Counseling from Daily Usage Log Data** *Junya ATAKE, Chia-Yu HSU, Izumi HORIKOSHI & Hiroaki OGATA*
146F	**Driving Informed EdTech Quality Decisionmaking: A Research-Practice Partnership-Based Solution for Diverse Stakeholders' Needs** *Ishika ISHIKA, Angelina Susan PHILIP, Sheeja VASUDEVAN & Sahana MURTHY*
20S	**Determinants of ChatGPT Adoption in Academe & Other Fields – A Review on Theoretical Perspective** *Gerand Boy O. ELINZANO & Michelle Renee CHING*
171S	**Exploring the Entanglement Between Technology and Pedagogy: A Case Study of Knowledge Building** *Yee Yin TAN, Seng Chee TAN & Chew Lee TEO*
15:50–16:50	PTP-5
95S	**Determinants of ICT Competency Among Public School Teachers in Bukidnon** *Gladys S. AYUNAR, Nathalie Joy G. CASILDO, May Marie P. TALANDRON-FELIPE, Kent Levi A. BONIFACIO, Jinky G. MARCELO & Fe S. SEBUGUERO*
226ES	**Preliminary Exploration on the Dimensions of Digital Learning Agility Among Teachers in Malaysia** *Nur Dania MOHD ROSLI, Kamilah ABDULLAH, Mas Nida MD. KHAMBARI, Su Luan WONG, Noor Syamilah ZAKARIA, Priscilla MOSES & Nur Aira ABDRAHIM*
228ES	**Analysis of Factors Influencing Teacher Behavioural Engagement in Distance Training Based on MOA and SDT** *Zhou JIN*
257ES	**The Impact of AI Literacy on Teacher Efficacy and Identity: A Study of Korean English Teachers** *Seunmin EUN & Anna KIM*

C7: ICCE Sub-Conference on Practice-driven Research, Teacher Professional Development and Policy of ICT in Education (PTP)

11:10–12:00	PTP-6
183F	**Constructing Desirable Learning Habits: Evidence from an Instructional System Design Course Based on the IDC Theory** *Anveshna SRIVASTAVA, Sandeep YADAV, Sahana MURTHY & Sridhar IYER*
188F BSPN	**Enhancing Language Learning Through Multimodal AI-Driven Feedback on Picture Descriptions: An Eye-Tracking Study** *Ruibin ZHAO, Zhiwei XIE, Yipeng ZHUANG, Huixian LI & Philip L. H. YU*

ICCE 2024
The 32nd International Conference
on Computers in Education
MANILA, PHILIPPINES

Poster Session 1

	AIED/ITS
47P	**Image-Based Pili (Canarium ovatum, Engl.) Fruit Variety Classifier App: An Approach to Enhancing Teaching Biodiversity and Crop Science** *Leo Constantine BELLO & Joshua MARTINEZ*
54P	**Authorship Forensics Portal** *Robert SCHMIDT, Maiga CHANG, Hsiang-Han CHENG, Greg FREDIN, Kevin HAGHIGHAT & Rita KUO*
55P	**Designing Learner-Centered Collaborative Learning by Incorporating AI-Based Teacher/Learner Agents with a Cognitive Model** *Yugo HAYASHI, Shigen SHIMOJO & Tatsuyuki KAWAMURA*
59P	**Student Perceptions of Using Generative AI Chatbot in Learning Programming** *Ean Teng KHOR, Leta CHAN, Elizabeth KOH & Peter SEOW*
	ALT
12P	**Towards the Development of PIA 2.0: A Pedagogical Agent That Exhibits Synthetic Facial Expressions** *John Lorenz DELA CRUZ, Paulyn Joy DELA CRUZ, Joyce Antonette GUADALUPE, Jiabianca MACARAEG, Piolo Jose MONTESA, Mark Paul RAMOS & Rex BRINGULA*
32P	**Early Detection of At-Risk Students Through Leaning-Activity Forecasting** *Yuya OZAKI, Daisuke DEGUCHI, Haruya KYUTOKU & Hiroshi MURASE*
165P	**What Insights Are Gained from Students' Trace Data in Homework?** *Satomi HAMADA, Yuko TOYOKAWA, Taito KANO, Izumi HORIKOSHI & Hiroaki OGATA*
	TEML
36P	**A TPB-TAM Approach to Identifying Adoption Factors of Hyflex Among Educators** *Elanie VIZCONDE, Joshua ISAGUIRRE, Gabriel Luis LIWANAG & Ryan EBARDO*
111P	**Designing Interactive Mathematical Teaching Tools for Tablet-Based Learning: Enhancing Student Engagement and Tactile Exploration** *Loong-Chuan LEE, Chia-Ying LIN, Yu-Han TAN & Kuo-Yu LIU*
	TELL
127P	**Implementation and an Evaluation of a Search Function Allowing Misspelling for a Japanese Learning System** *Hidenobu KUNICHIKA & Miguel Antonio VILLALOBOS ZUNIGA*
	PTP
2P	**An Experience Sampling Study of Student Emotional Life: Preliminary Results** *Maria Mercedes T. RODRIGO, Liane Peña ALAMPAY, Queena N. LEE-CHUA & Irish Danielle MORALES*
3P	**Theory-Driven Design for the Development of a Student-Centered Error-Correction Online Learning System** *Fu-Yun YU*
62P	**Contextual Factors Affecting Large-Scale Educational Technology Implementation: Policy Intention Versus Practice** *Arjun PRASAD, Jayakrishnan WARRIEM & Sridhar IYER*
	WIPP
216WIPP	**Support System for Focused Discussion in Consensus Building for Team Sports** *Kazuma KUWADA & Tomoko KOJIRI*
222WIPP	**Understanding Collaborative Teacher Growth from the Lens of Digital Learning Agility: A Pathway to Educational Excellence** *Kamilah ABDULLAH, Mas Nida MD KHAMBARI, Su Luan WONG, Noor Syamilah ZAKARIA, Nur Dania MOHD ROSLI, Nur Aira ABD RAHIM & Priscilla MOSES*
239WIPP	**Online Educational Game for Interior Design with Design Thinking Process and Multidimensional Scaffolding** *Chou-Pai YEOH & Huei-Tse HOU*
247WIPP	**Microlearning Strategy in ICT Education** *Kotaro TORII*
250WIPP	**What Do University Students Say About ChatGPT? A Topic Modeling of Perception on GenAI in Academic Writing** *Lingxi JIN, Kyuwon KIM, Hyo-Jeong SO & Ga Young LEE*
265WIPP	**Generative AI and XR in Education: Student Co-Created Metaverse Worlds in an International Virtual Exchange** *Masako HAYASHI*
	SATELUC
202SAT	**Practical Skills Acquisition in Domestic Wiring as Determinants of Enterpreneurship Development Among Underdraduate Students in Nigeria** *Ismaheel Adewale BADRU **(Nigeria)***
207SAT	**Transforming Education in Timor-Leste: The Role of E-Learning and Artificial Intelligence in Boosting Student Achievements** *Estanislau SOUSA SALDANHA, Edio DA COSTA, Aderita MARIANA TAKELEB, Salustiano DOS REIS PIEDADE & Carla ALEXANDRA DA COSTA **(Timor-Leste)***
208SAT	**Learning with Virtual Avatars: Insights into Performance and Resource Needs** *Antun DROBNJAK & Ivica BOTICKI **(Croatia)***
219SAT	**MS Teams Acceptance Factors Among Polish and Ukrainian Students** *Nataliia DEMESHKANT, Sławomir TRUSZ, Tetiana MATUSEVYCH & Amy SEPIOŁ **(Poland / Ukraine)***
225SAT	**Boosting Literacy with an Educational RPG for Polytechnic Students** *Agung Nugroho PRAMUDHITA, Puteri Ardista Nursisda MAWANGI & Banni Satria ANDOKO **(Indonesia)***
230SAT	**Development of the Board Game 'Career Champion': Gamification for Understanding Job Interview Preparation** *Farid Angga PRIBADI, Banni Satria ANDOKO & Erina SEVIYANTI **(Indonesia)***
232SAT	**AI Tools Experience in Civitas Academic Portal in Timor Leste** *Agostinho Dos Santos GONÇALVES, Sebastião PEREIRA & Saida ULFA **(Timor-Leste)***
233SAT	**AI Literacy Among Lecturers in University: A Case Study in a Private University in Timor Leste** *Agustinho Dos Santos GONCALVES, Jacinto de OLIVEIRA JUNIOR, Natalino Pereira PARADA & Saida ULFA **(Timor-Leste)***
235SAT	**Lecturer Performance Assessment System Based on Tridharma Using Saw Method** *Anita GUTERRES, Delfim da SILVA & Antonio GUTERRES **(Timor-Leste)***
252SAT	**AI as a Co-Teacher: Enhancing Creative Thinking in Underserved Areas** *Roberto ARAYA **(Chile)***
268SAT	**Global Trends in Computational Thinking in Curricula: A Comparative Review** *Martha Nury BONILLA-CASTAÑEDA, Klinge Orlando VILLALBA-CONDORI, Hector CARDONA-REYES, Claudia ACRA-DESPRADEL & Kee-Fui TURNER-LAM **(Colombia / Peru / Mexico / Dominican Republic)***

Poster Session 2

Thursday, November 28
16:50–17:50

	AIED/ITS
66P	**Quality Criteria Acquisition Support System of Product by Explaining It with Components** *Kota KUNORI & Tomoko KOJIRI*
74P	**Exploring Explainable Artificial Intelligence in Active Video Watching** *Raul Vincent LUMAPAS, Antonija MITROVIC, Matthias GALSTER & Sanna MALINEN*
87P	**A Proposal of Quality Assurance Programming Exercise** *Nobuya ISHIHARA, Samsul HUDA & Yasuyuki NOGAMI*
89P	**Enhancing Engagement in Distance Learning: Overcoming Learner Isolation Through ICT Tools** *Kumiko AOKI, Itaru KANEKO, Ken KURIYAMA, Takeo TATSUMI & Takahiro MIYAJIMA*
96P	**Scaffolding Students' Ill-Structured Problem Solving via LLM — Multi-Armed Bandit Problem as a Case** *Jiayi LIU & Bo JIANG*
102P	**Navigating Europe's Artificial Intelligence Act: Application of LLMs in Classrooms** *Upasana DASGUPTA & Rwitajit MAJUMDAR*
142P	**Learning Support Environment with Fill-in-Blank Exercise Based on Program Visualization System** *Koichi YAMASHITA, Shuya SUZUKI, Satoru KOGURE, Yasuhiro NOGUCHI, Raiya YAMAMOTO, Tatsuhiro KONISHI & Yukihiro ITOH*
	CSCL
38P	**Pyzzles: Towards the Design of a Zugzwang-Inspired Learning Tool for Novice Programmers and Its Effect on Debugging Skills and Self-Perceived Debugging Confidence** *Elijah Justin CALLANTA*
195P	**BioAnalogica: SBF-Based Analogical Stories to Enhance Understanding of Complex Biological Processes** *Meera PAWAR, Sheeja VASUDEVAN & Sahana MURTHY*
198P	**Challenging the Eye-Mind Link Hypothesis: Visualizing Gazes for Each Programming Problem** *Michael T. LOPEZ II*
	ALT
49P	**Program Learning Support System with Visualization Reflecting Teacher's Intent for Learner's Code** *Kenzo KOBAYASHI, Satoru KOGURE, Yasuhiro NOGUCHI, Raiya YAMAMOTO, Koichi YAMASHITA, Tatsuhiro KONISHI & Yukihiro ITOH*
154P	**Development of Annotation System for Learning from Others in Public Space Design Using Extended Reality** *Toshiki MUGURUMA, Yusuke YAGI, Yusuke KOMETANI, Saerom LEE, Naka GOTODA & Rihito YAEGASHI*
156P	**Development of Laborer Digital Twin Generation and Visualization Function for Hazard Prediction in Off-Site Training** *Kaito MINOHARA, Toshiki MUGURMA, Yusuke KOMETANI, Naka GOTODA, Saerom LEE, Ryo KANDA, Shotaro IRIE & Toru HARAI*
176P	**HyCode: A Code Similarity Assessment Tool Utilizing Recurrent Neural Networks** *James Marcel A. ABAWAG, Aleczia S. TORDILLA & Joshua C. MARTINEZ*
178P	**Empowering Educational Researchers with a Privacy-Centric Data Platform: Design, Implementation, and Implications** *Isanka WIJERATHNE, Brendan FLANAGAN & Hiroaki OGATA*
199P	**Exploring the Relationship Between Assignment Submission Behavior and Final Grade of Information Literacy Education Using Big Data** *Yuki OE, Etsuko KUMAMOTO, Huiyong LI & Chengjiu YIN*
	EGG
5P	**Exploring the Effects of Leaderboards on an Online Professional Development Course for Teachers** *Aime Michelle LAZARO & Marlene DE LEON*
170P	**Game-Based College English Translation Instructional Design Based on Representational Redescription Model: Implicit Knowledge Transformed into Explicit Knowledge** *Xinyu JIANG, Mengya CHEN & Lu HUANG*
	PTP
11P	**Online Student Testlet-Generation as an Innovation Approach to Student-Created Assessment Its Learning Effects** *Fu-Yun YU & Ya-Shin CHANG*
110P	**AI and Data Science Literacy Framework for Educators** *Nurul Amelina NASHARUDDIN, Nurfadhlina MOHD SHAREF & Mohd Khaizer OMAR*
138P	**Challenges to Augmenting Literacy in the Digital Environment** *Khalid KHAN & Jon MASON*
169P	**Unboxing Learner Engagement in an Online SEL for Teachers Course on FramerSpace** *Hritik GUPTA, Nandini Chatterjee SINGH & Shitanshu MISHRA*
	WIPP
221WIPP	**Influence of Telepresence Robot on Discussion in Hybrid Classes** *Hiroaki ARUGA & Akihiro KASHIHARA*
234WIPP	**Proposal for Simulation Environment to Support Understanding of Tactical Positioning** *Yuki OHTSUKA & Tomko KOJIRI*
240WIPP	**An Online MMORPG Card Game Based on Multi-Dimensional Scaffolding to Develop Reading Comprehension and Contextual Problem-Solving Skills** *Cheng-Tai LI, Chou-Pai YEOH, Yu-Chi CHEN, Hung-Yu CHAN, Yun-Chien CHUNG, Yu-Jen LIN, Min-Hsiong HONG, Cheng-Yuan WEI & Huei-Tse HOU*
249WIPP	**Instructors' Perceptions and Use of Feedback Dashboard** *Feng LIN & Rebekah Wei Ying LIM*
255WIPP	**Exploring Student Emotion via Facial Expressions Using Transfer Learning** *Tita HERRADURA, Macario CORDEL II & Merlin Teodosia SUAREZ*
263WIPP	**The Effect of Stimulus Concurrence on Memorizing Constellations in VR** *Nicko CALUYA, Eiji YAHARA & Damon CHANDLER*