



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

## Conference Program

**Monday, 25 November 2024**

### Monday, 25 November 2024

09:00 to 10:30	<p><b>ECW: Early Career Workshop</b> <b>Session Chair: Chiu-Lin LAI</b></p> <p><b>ECW01:</b> Can Use of Technologies help Reduce Biases in Academic Recruitment <i>Kashmira DAVE</i></p> <p><b>ECW02:</b> Leveraging AI-Powered Virtual Meeting Summaries: Towards an Evidence-Based Classroom Observation Assessment <i>Arlene Mae CELESTIAL VALDERAMA</i></p> <p><b>Advisors</b> Tzu-Chi YANG Assistant Professor, National Yang Ming Chiao Tung University Cheng-Huan CHEN Associate Professor, National Tsing Hua University Shao-Chen CHANG Assistant Professor, Yuan Ze University</p>	Doreen Black Box
	<p><b>W01-1:</b> 4th International Workshop on Embodied Learning: Technology Design, Analytics &amp; Practices <b>Session Chair: Rwitajit MAJUMDAR</b></p> <p><b>W01-004F:</b> Exploring Cognitive Engagement in AI-Driven Adaptive Psychomotor Sport Training <i>Miguel PORTAZ, Rwitajit MAJUMDAR &amp; Olga C. SANTOS</i></p> <p><b>W01-005F:</b> Exploring Graph Slopes Through a Series of Embodied Learning Experiences <i>Priyadharshni ELANGAIVENDAN, Melwina ALBUQUERQUE, Shizuka DARA &amp; Sanjay CHANDRASEKHARAN</i></p>	The Loft
	<p><b>W03-1:</b> Analysis and Design of Problems/Questions in the Digital Environment: The 17th Workshop on Technology Enhanced Learning by Posing/Solving Problems/Questions <b>Session Chair: Yusuke HAYASHI</b></p> <p><b>W03-002:</b> Difficulty-Controllable Reading Comprehension Question Generation Considering the Difficulty of Reading Passages <i>Yuto TOMIKAWA &amp; Masaki UTO</i></p> <p><b>W03-005:</b> Learning Effectiveness and Reflections on AI Literacy in Junior High School Students with Game-Based Learning and Problem-Based Learning <i>Shih-Hua HUANG &amp; Ting-Chia HSU</i></p> <p><b>W03-009:</b> Does Experience of Feedback Generation Promote Student Novel Problem Posing? An Empirical Study in a Database Course <i>Kazuaki KOJIMA</i></p>	The Hive



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09:00 to 10:30	<p><b>W08-1: The 12th Workshop on Technology-Enhanced STEM Education (TeSTEM Workshop)</b></p> <p><b>Session Chair: Pawat CHAIPIDECH</b></p> <p><b>W08-001F:</b> Novice Programmers' Saccadic Patterns in Error Message Comprehension and Syntax Error Identification <i>Caren PACOL, Maria Mercedes RODRIGO &amp; Christine Lourrine TABLATIN</i></p> <p><b>W08-004F:</b> Challenges and Opportunities for Designing and Implementing Ubiquitous Game-Based Learning to Cultivate Digital Citizenship in Thailand <i>Patcharin PANJABUREE, Gwo-Jen HWANG, Niwat SRISAWASDI, Ungsinun INTARAKAMHANG &amp; Sasipim POOMPIMOL</i></p> <p><b>W08-005S:</b> Reducing Undergraduate Students' Information Technologies (ITs) Anxiety Through Implementation of Blended Learning: A Case Study in the Basic Natural Science Course <i>Anggiyani Ratnaningtyas Eka NUGRAHENI, Anggraeni Dian PERMATASARI &amp; Antuni WIYARSI</i></p>	JJ Atencio Lighthouse
	<p><b>W09-1: The 4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation</b></p> <p><b>Session Chair: Jerry Chih-Yuan SUN</b></p> <p><b>W09-001S:</b> AR<sup>2</sup>: Augmented Reality for Enhanced Reading Comprehension <i>Allan Jay ESTEBAN</i></p> <p><b>W09-002S:</b> Developing the Interactive Game-Based Picture Book "Food Ninja" to Enhance Creativity in Elementary School Students <i>Wen Chun LAN, De Jun MO &amp; Joni Tzuchen TANG</i></p> <p><b>W09-003F:</b> An Estimation of Student Well-Being Using Experience Sampling <i>Arthur W. NEBRAO, Jr. &amp; Maria Mercedes T. RODRIGO</i></p> <p><b>W09-004S:</b> Exploring the Use of Short Video Social Media for Learning ESL in Indonesia <i>Riska SAPUTRA, Tsaqufal JALILIY &amp; Intan SETIANI</i></p> <p><b>W09-005S:</b> Narrative Introduction Text Generation Support System According to Reader Preferences <i>Ryusei SHIMONAKA, Kota KUNORI &amp; Tomoko KOJIRI</i></p> <p><b>W09-007S:</b> Galvanic Skin Responses and Flow: Insights from Multimodal Learning Analytics in Personal Learning Environment <i>Yu-Lin HO, Yuan-Hsuan LEE &amp; Jiun-Yu WU</i></p>	Campos Interactive Teaching Lab
10:30 to 10:50	<p><b>Coffee / Tea Break</b></p> <p>Food Service Station &amp; Dining Area: Ubuntu Space</p> <p>Food Service Station: The Loft</p> <p>Dining Area: The Loft, The Hive, JJ Atencio Lighthouse</p>	The Loft & Ubuntu Space



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10:50 to 12:20	<p><b>W01-2:</b> 4th International Workshop on Embodied Learning: Technology Design, Analytics &amp; Practices Session Chair: Jayakrishnan M. WARRIEM</p> <p><b>W01-006F:</b> Unpacking Interaction Markers of Critical Thinking <i>Aditi KOTHIAL, Rwitajit MAJUMDAR, Shitanshu MISHRA, Jayakrishnan Madathil WARRIEM &amp; Prajakt PANDE</i></p> <p><b>W01-007F:</b> Actions and Interactions at Collaborative Engineering Design Hackathon: Looking Through the Lens of Embodied Cognition <i>Soumya NARAYANAN, Navneet KAUR &amp; Rwitajit MAJUMDAR</i></p> <p><b>W01-008F:</b> Designing an AI-Enhanced Timeline for Monitoring Multimodal Interactions in Embodied Learning Environments <i>Joyce FONTELES, Namrata SRIVASTAVA, Eduardo DAVALOS, Ashwin T S &amp; Gautam BISWAS</i></p>	The Loft
	<p><b>W03-2:</b> Analysis and Design of Problems/Questions in the Digital Environment: The 17th Workshop on Technology Enhanced Learning by Posing/Solving Problems/Questions Session Chair: Shitanshu MISHRA</p> <p><b>W03-004:</b> Difficulty-Controllable Reading Comprehension Question Generation Considering the Difficulty of Reading Passages <i>Yuto TOMIKAWA &amp; Masaki UTO</i></p> <p><b>W03-006:</b> Iterative Problem Solving in the Integration of Design Thinking and Game-Based Learning into Enhancing Computational Thinking and AI Literacy <i>Tai-Ping HSU &amp; Ting-Chia HSU</i></p> <p><b>W03-007:</b> Design and Development of a Stepwise Learning Environment for Problem Posing of Arithmetic Word Problem <i>Yusuke HAYASHI, Nagito YAMAMOTO, Susumu SHIMAKAWA &amp; Tsukasa HIRASHIMA</i></p>	The Hive
	<p><b>W08-2:</b> The 12th Workshop on Technology-Enhanced STEM Education (TeSTEM Workshop) Session Chair: Pawat CHAIPIDECH</p> <p><b>W08-002F:</b> Predicting Emotional Impact on Peer Review, Peer Assessment, and Self Assessments Using Deep Learning and NLP in STEM Education <i>Pascal Muam MAH</i></p> <p><b>W08-008F:</b> Leveraging Generative AI for Automatic Scoring in Chemistry Education: A Web Based Approach to Assessing Conceptual Understanding of Colligative Properties <i>Sri YAMTINAH, Dimas Gilang RAMADHANI, Antuni WIYARSI, Hayuni Retno WIDARTI &amp; Ari Syahidul SHIDIQ</i></p> <p><b>W08-010S:</b> Fostering TPACK Self Efficacy Among Pre-Service Chemistry Teachers: A Case Study from Indonesia <i>Anggiyani Ratnaningtyas Eka NUGRAHENI &amp; Niwat SRISAWASDI</i></p>	JJ Atencio Lighthouse



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10:50 to 12:20	<p><b>W09-2: The 4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation</b> <i>Session Chair: Tzu-Chi YANG</i></p> <p><b>W09-006F:</b> Transforming Student Feedback into Institutional Action Plans: A Data-Driven Approach <i>Arlene Mae CELESTIAL VALDERAMA</i></p> <p><b>W09-008F:</b> BioMol DigiGames: An App for the Mastery of Biomolecules <i>Joshua TUMOLVA, Armando Victor GUIDOTE, John Lorence VILLAMIN &amp; Joselito Christian Paulus VILLANUEVA</i></p> <p><b>W09-009S:</b> The Era of Learning Programming Through Program: Challenges and Potential of ChatGPT in Revolutionizing High School Programming Education <i>Tzu-Chi YANG</i></p> <p><b>W09-010S:</b> Code Visualization System for Writing Better Code Through Trial and Error in Programming Learning: Classroom Implementation and Practice <i>Shintaro MAEDA, Kento KOIKE &amp; Takahito TOMOTO</i></p> <p><b>W09-011S:</b> Optimization of Non-Verbal Information for English Conversation Agents Using Interactive Evolutionary Computation <i>Yuma SHIMOSAKA, Emmanuel AYEDOUN &amp; Masataka TOKUMARU</i></p>	Campos Interactive Teaching Lab
12:20 to 13:20	<p><b>Lunch</b> Food Service Station &amp; Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse</p>	The Loft & Ubuntu Space
13:20 to 17:00	<p><b>IE01: Interactive Event-1</b> <b>Educ-AI-tion: Bridging Divides with Educational GenAI</b> <i>Ahmad Salahuddin Mohd Harithuddin, Nurul Amelina NASHARUDDIN, Nur Aira Abd Rahim, &amp; Mas Nida Md Khambari</i> Universiti Putra Malaysia, Malaysia</p>	The Loft
	<p><b>IE02: Interactive Event-2</b> <b>Improving Learning through Information Organization Using Kit-Build Concept Map</b> <i>Rian FITRIANSYAH &amp; Lintang Matahari HASANI</i> Hiroshima University, Japan</p>	Doreen Black Box
	<p><b>TU01: Tutorial 1</b> <b>Leveraging Deep NLP for Agentic LLM Use in Teaching and Learning</b> <i>Michelle BANAWAN</i> Asian Institute of Management, Philippines</p>	The Hive



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13:20 to 17:00	<p><b>W08-3: The 12th Workshop on Technology-Enhanced STEM Education (TeSTEM Workshop)</b></p> <p><b>Session Chair: Anggiyani Ratnaningtyas Eka NUGRAHENI</b></p> <p><b>W08-003F:</b> Math Learning Application on Mobile Devices Following the STEAM Educational Model <i>Nguyen-Manh THANG &amp; Pham-Duc THO</i></p> <p><b>W08-011F:</b> Does Interactive Augmented Reality Enhance Primary Students' Geometric Understanding and Visual-Spatial Skills in Mathematics Learning? <i>Atcharaporn ASSAWAPHUM, Sasivimol PREMTHAISONG &amp; Pawat CHAIPIDECH</i></p> <p><b>W08-007S:</b> Promoting Quantitative Analysis in School Chemistry with Technology-Supported Hands-On Laboratory Learning: A Case of Arduino-Based Portable Spectrophotometer <i>Ari Syahidul SHIDIQ, Fa'ari SALSABILLA, Sri YAMTINAH, Sri MULYANI, Murni RAMLI, Hayuni Retno WIDARTI &amp; Nahadi</i></p>	JJ Atencio Lighthouse
	<p><b>W09-3: The 4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation</b></p> <p><b>Session Chair: Yanjie SONG</b></p> <p><b>W09-012S:</b> Exploring the Benefits of Strategic Hesitations in Language Learning Robots <i>Ryusei AZUMA, Emmanuel AYEDOUN &amp; Masataka TOKUMARU</i></p> <p><b>W09-013S:</b> Zooming In on Educator Well-Being: Exploring Behavior Attributes, Zoom Fatigue, and Burnout Dynamics <i>Kevynn DELGADO, Mary Rose MARTINEZ, Christine Jamela VALSADO &amp; Ryan EBARDO</i></p> <p><b>W09-014S:</b> The Effect of Collaborative Anchoring on the Development of Digital Curation Skills Among Nursing College Students <i>Chun-Hao CHANG</i></p> <p><b>W09-015F:</b> Enhancing Health Education and Learning Motivation in Primary Students Through Augmented Reality and Game-Based Learning: A Case Study <i>Nattapat BUNYUEN, Sasivimol PREMTHAISONG &amp; Pawat CHAIPIDECH</i></p> <p><b>W09-016S:</b> Improving Engagement in Museums Through Virtual Reality Educational Escape Rooms (VREER): A Framework and Usability Study <i>Eric Cesar E. VIDAL Jr., Nicko R. CALUYA, Joan Dominique L. LEE, Kenneth King L. KO, Jed Laszlo O. JOCSON &amp; Gerick Jeremiah Niño N. GO</i></p> <p><b>W09-017S:</b> Explore the Effect of Metacognitive Awareness on University Students' Learning Outcomes in the Metaverse: Evidence from Eye-Tracking Data <i>Tinghui WU, Yanjie SONG &amp; Xuesong ZHAI</i></p>	Campos Interactive Teaching Lab
14:50 to 15:10	<p><b>Coffee / Tea Break</b></p> <p>Food Service Station &amp; Dining Area: Ubuntu Space</p> <p>Food Service Station: The Loft</p> <p>Dining Area: The Loft, The Hive, JJ Atencio Lighthouse</p>	The Loft & Ubuntu Space



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15:10  
to  
17:00

**W08-4:** The 12th Workshop on Technology-Enhanced STEM Education  
(TeSTEM Workshop)

Session Chair: Anggiyani Ratnaningtyas Eka NUGRAHENI

**W08-009F:** The Urgency of Small-Scale Laboratory Learning Media with  
Ethno-Electrochemical Contexts Based on Content Creators

*Hayuni R. WIDARTI, Sumari, Munzil, Nahadi, Ari S. SHIDIQ,  
Berliyana I. PANULATSIH, Ghaitza Z. S. P. PUTRI, Nafisah KHAIRUNNISA &  
Deni A. ROKHIM*

**W08-012F:** Exploring the Effect of Marker-Based AR Gamification on  
Primary Students' Science Concepts and Motivation

*Pawat CHAIPIDECH, Sasivimol PREMTHAISONG, Phattaraporn PONDEE &  
Niwat SRISAWASDI*

**W08-006S:** Exploring the Impact of Digital Divide on the Academic  
Performance of STEM Students in Hybrid Modality

*May Marie P. TALANDRON-FELIPE & Jundy V. INTAO*

JJ Atencio  
Lighthouse





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## Conference Program

### Tuesday, 26 November 2024

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09:00  
to  
10:30

**W02-1:** The 13th International Workshop on ICT Trends in Emerging Economies (WICTTEE 2024)

Session Chair: Ryan EBARDO

**W02-003F:** Exploring Learning Analytics: A Case Study of Tertiary Educators' Utilization and Integration of AnimoSpace LMS in the Online Learning Environment

*Rozanne Tuesday G. FLORES & Ethel C. ONG*

**W02-007F:** An Implementation of Augmented Reality in Guided Inquiry-Based Learning for Enhancing Primary Students' Mental Models in Science

*Sasivimol PREMTHAISONG, Pawat CHAIPIDECH, Phattaraporn PONDEE & Niwat SRISAWASDI*

**W02-001S:** Design and Assessment of a Mobile Cloud Learning Platform for the Classroom: Examining the Efficiency of Blended Learning in Post-COVID Science Education

*Joselito Christian Paulus VILLANUEVA, John Lorence VILLAMIN & Joshua TUMOLVA*

Doreen Black  
Box

**DSC-1:** Doctoral Student Consortium

Session Chair: Feng LIN

**244:** Real-Time Adaptive Learning Environments Using Gaze and Emotion Recognition Engagement and Learning Outcomes

*AboulHassane CISSE*

**254:** Developing a Multimodal Learning Analytics Approach for Collaborative Learning and Metacognitive Strategies in Virtual Learning Environments for Primary Science Education

*Lei TAO & Yanjie SONG*

**223:** Competition and Collaboration: A Multi-Modal Analysis of Cognitive Load and Behavior Patterns in Game-Based Learning

*Lishan ZHENG & Wenli CHEN*

The Loft

**W04-1:** The 8th Computer-Supported Personalized and Collaborative Learning

Session Chair: Cheng-Huan CHEN

**W04-007F:** Investigating the Role of AI Book Talk Companion in Enhancing Student Performance: A Pilot Study on Self-Efficacy

*Yi-Cheng TSAI, Hsiao-Tung YANG, Chang-Yen LIAO, Yen-Cheng YEH & Tak-Wai CHAN*

**W04-008F:** Investigating Students' Online Learning Perception Through the Lens of Constructivism

*May Marie P. TALANDRON-FELIPE, Kent Levi A. BONIFACIO & Gladys S. AYUNAR*

**W04-001S:** Integrating Virtual Environment in Teaching Courses

*Chiu-Jung CHEN & Pei-Lin LIU*

The Hive



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09:00 to 10:30	<p><b>W06-1:</b> GenAI in Education – From Hallucinations to Reality: Integrating Learning Analytics and Generative AI for Enhancing Personalized Learning Experiences Session Chair: Yiling DAI</p> <p><b>W06-001F:</b> Analyzing Teacher–Student Dialogues in Online One-on-One Primary Mathematics Tutoring: A Lag Sequential Analysis of Group Differences <i>Gary CHENG, Bo JIANG, Daner SUN, Ming GAO &amp; Zhixuan SONG</i></p> <p><b>W06-004F:</b> Supporting Teacher–Student Book Talk and Book Wish Lists with AI-Driven Technology <i>Chih-En KUO, Hong-Min TU, Chang-Yen LIAO &amp; Tak-Wai CHAN</i></p> <p><b>W06-005F:</b> AVERY: A GenAI-Based Approach to Enhancing Learner Engagement in English Writing <i>Ka-Lai WONG, Patrick OCHEJA, Brendan FLANAGAN &amp; Hiroaki OGATA</i></p>	JJ Atencio Lighthouse
	<p><b>W07-1:</b> The 7th Workshop on Predicting Performance Based on the Analysis of Reading and Learning Behavior</p> <p><b>W07-001F:</b> Exploring Cross-Disciplinary Education: Enhancing Science Learning with Digital Picture Books <i>Yan-Yu JAU &amp; Joni Tzuchen TANG</i></p> <p><b>W07-002F:</b> Methods of Balancing Model Explainability and Performance in Identifying At-Risk Students <i>Tiffany T.Y. HSU, Brendan FLANAGAN &amp; Owen H.T. LU</i></p>	Campos Interactive Teaching Lab
10:30 to 10:50	<p><b>Coffee / Tea Break</b></p> <p>Food Service Station &amp; Dining Area: Ubuntu Space</p> <p>Food Service Station: The Loft</p> <p>Dining Area: The Loft, The Hive, JJ Atencio Lighthouse</p>	The Loft & Ubuntu Space
10:50 to 12:20	<p><b>W02-2:</b> The 13th International Workshop on ICT Trends in Emerging Economies (WICTTEE 2024) Session Chair: Ryan EBARDO</p> <p><b>W02-014F:</b> Exploring Skills Enhancement in Student Teacher Through Implementation of Design Thinking in Unplugged Game Creation <i>Tian Wong LING, Mas Nida Md. KHAMBARI, Mohd Mokhtar MUHAMAD, Sharifah Intan Sharina Syed-ABDULLAH &amp; Saiful Hasley RAMLI</i></p> <p><b>W02-017F:</b> Factors Influencing ChatGPT Use Behaviour Among Trainee Teachers <i>Sarala VALAIDUM &amp; Jazihan MAHAT</i></p> <p><b>W02-009S:</b> Design and Implementation of an Educational Escape Rooms Class <i>Jesus Alvaro C. PATO, Gerick Jeremiah Niño N. GO, Paolo Santino P. CAOILE, Gio Gabriel C. REYES, Joaquin Enrique B. SINJIAN, Jerold Luther P. AQUINO &amp; Maria Mercedes T. RODRIGO</i></p>	Doreen Black Box



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10:50 to 12:20	<p><b>DSC-2: Doctoral Student Consortium</b> <b>Session Chair: Alwyn Vwen Yen LEE</b></p> <p><b>253:</b> A Proposal for a Quantitative Evaluation Model for Error Image Generation in L2 Vocabulary Learning <i>Kazuki SUGITA, Wen GU, Koichi OTA, Prarinya SIRITANAWAN &amp; Shinobu HASEGAWA</i></p> <p><b>212:</b> Development and Validation of a Problem-Solving Instrument (Multiple-Choice Questions) for Computational Thinking Among Trainee Teachers in the Klang Valley, Malaysia <i>Ahmad Sarji Abdul Hamed, Su Luan WONG &amp; Mohd Zariat Abdul Rani</i></p> <p><b>217:</b> OKLM: Open Knowledge and Learner Model Using Educational Big Data <i>Kensuke TAKII, Changhao LIANG &amp; Hiroaki OGATA</i></p>	The Loft
	<p><b>W04-2: The 8th Computer-Supported Personalized and Collaborative Learning</b> <b>Session Chair: Chin-Jung CHEN</b></p> <p><b>W04-013F:</b> Investigation of Skills Training System Using TF-IDF for the Plasterer's Skeletal Data <i>Ryota TANAKA, Naka GOTODA, Lee SAERON, Ryo KANDA, Ayaka HUNABIKI, Hirotake KANISAWA, Kanae KANDA, Yuka TAKAI &amp; Toshihiro HAYASHI</i></p> <p><b>W04-002S:</b> The Trends in Computer-Supported Virtual Reality Collaborative Learning <i>Ching-Yi CHANG &amp; Cheng-Huan CHEN</i></p> <p><b>W04-003F:</b> Investigating the Impact of Cooperative Group Learning on Blended Teaching and Learning Outcomes: A Case Study of Sixth-Grade Students in an Elementary School <i>De Jun MO &amp; Joni Tzuchen TANG</i></p>	The Hive
	<p><b>W06-2: GenAI in Education - From Hallucinations to Reality: Integrating Learning Analytics and Generative AI for Enhancing Personalized Learning Experiences</b> <b>Session Chair: Patrick OCHEJA</b></p> <p><b>Panel Discussion</b></p>	JJ Atencio Lighthouse
	<p><b>W07-2: The 7th Workshop on Predicting Performance Based on the Analysis of Reading and Learning Behavior</b></p> <p><b>W07-003F:</b> Effects of the Self-Regulated Learning and Motivation on Learning Achievements of the Programming Courses <i>Mu-Sheng CHEN &amp; Ting-Chia HSU</i></p> <p><b>W07-004F:</b> GazeViz: A Web-Based Approach for Visualizing Learner Gaze Patterns in Online Educational Environment <i>Eduardo DAVALOS, Namrata SRIVASTAVA, Yike ZHANG, Amanda GOODWIN &amp; Gautam BISWAS</i></p>	Campos Interactive Teaching Lab
12:20 to 13:20	<p><b>Lunch</b></p> <p>Food Service Station &amp; Dining Area: Ubuntu Space</p> <p>Food Service Station: The Loft</p> <p>Dining Area: The Loft, The Hive, JJ Atencio Lighthouse</p>	The Loft & Ubuntu Space



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13:20 to 14:50	<p><b>W02-3:</b> The 13th International Workshop on ICT Trends in Emerging Economies (WICTTEE 2024) <i>Session Chair: John Byron TUAZON</i></p> <p><b>W02-002S:</b> A Preliminary Investigation of the Definition and Components of Computational Thinking in the Malaysian Education Landscape: From Educational Technology Experts' Perspective <i>Ahmad Sarji Abdul HAMED, Su Luan WONG, Mohd Zariat Abdul Rani, Mas Nida Md KHAMBAR, Nur Aira Abd RAHIM, Fariza KHALID &amp; Priscilla MOSES</i></p> <p><b>W02-006S:</b> PERS: A Personalized Recommender System for Student-Generated Questions in Programming Courses <i>Pham-Duc THO</i></p> <p><b>W02-010S:</b> A User Acceptance Testing Tool for Mobile Game-Based Learning Application <i>Christian Jade D. GUILLEN &amp; Saturnina F. NISPEROS</i></p> <p><b>W02-016S:</b> Sociotechnical Challenges of Older Educators in Delivering Medical Education Online <i>Ryan EBARDO, John Byron TUAZON &amp; Miriam Louella FERMIN</i></p>	Doreen Black Box
	<p><b>DSC-3:</b> Doctoral Student Consortium <i>Session Chair: Feng LIN</i></p> <p><b>248:</b> Exploring the Young Learners' Interactions with AI-Generated Multimodal Feedback in Collaborative Writing <i>Xinyu GUO</i></p> <p><b>241:</b> The Bane of AI in Teaching: Innovation Resistance in Higher Education Instructional Design &amp; Delivery <i>Estefanie BERTUMEN &amp; Ethel ONG</i></p> <p><b>Discussion</b></p>	The Loft
	<p><b>W04-3:</b> The 8th Computer-Supported Personalized and Collaborative Learning <i>Session Chair: Jonathan Y. CHIN</i></p> <p><b>W04-012F:</b> Addressing Public Speaking Anxiety with an AI Speech Coach <i>Frederick Voltair GARCIA Jr., Nicanor Froilan PASCUAL, Miguel Elijah SYBINGCO &amp; Ethel ONG</i></p> <p><b>W04-005S:</b> Exploring the Impact of Integrating Auto-Photography and Imagery Strategies into Computer-Supported Collaborative Learning: A Case Study in a General Education Course on Climate Change <i>Wen-Lung HUANG &amp; Chia-Jung CHANG</i></p> <p><b>W04-010S:</b> Developing an LLM-Empowered Agent to Enhance Student Collaborative Learning Through Group Discussion <i>Sixu AN, Yicong LI, Yu YANG, Yunsi MA, Gary CHENG &amp; Guandong XU</i></p>	The Hive



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**Tuesday, 26 November 2024**

13:20 to 14:50	<p><b>W06-3:</b> GenAI in Education – From Hallucinations to Reality: Integrating Learning Analytics and Generative AI for Enhancing Personalized Learning Experiences Session Chair: Tzu-Chi YANG</p> <p><b>W06-007F:</b> How AI Supports Returning Adult Learners in a Developing Economy: Enhancing Academic Writing Through Self-Determination Theory <i>Mary Rose MARTINEZ &amp; Ryan EBARDO</i></p> <p><b>W06-009F:</b> Developing a Multimodal Learning Analytics Approach to Examine Students' Cognitive Presence and Metacognition in a Metaverse Environment <i>Yanjie SONG, Lei TAO, Hao DENG &amp; Jiachen FU</i></p> <p><b>W06-010F:</b> Integrating ChatGPT into Flipped Learning: Enhancing Students' Creative Writing Skills and Perception <i>Worapong KHUIBUT, Sasivimol PREMTHAISONG &amp; Pawat CHAIPIDECH</i></p>	JJ Atencio Lighthouse
13:20 to 17:00	<p><b>SW: Student Wing</b> Chair: <i>Yanjie SONG</i>, The Education University of Hong Kong</p> <p><b>Introduction</b> Topic: <b>Get Your Research Published: Essential Tools and Strategies</b> <i>Yin YANG</i>, The Education University of Hong Kong</p> <p><b>Q&amp;A Session</b> Topic: <b>Unlock Your Early Career Success: Tips and Opportunities for Securing Grants</b> <i>Shurui BAI</i>, The Education University of Hong Kong</p> <p><b>Q&amp;A Session</b> <b>Interactive Session</b> <b>Closing</b></p>	Campos Interactive Teaching Lab
	<p><b>TU02: Tutorial 2</b> <b>Designing Learning Experiences for Science, Technology, Engineering and Mathematics (STEM) Education using Minecraft</b> <i>Dominique Marie Antoinette MANAHAN &amp; Louise Marie TULAYBA</i> Ateneo de Manila University, Philippines</p>	Assemble at Ubuntu Space
14:50 to 15:10	<p><b>Coffee / Tea Break</b> Food Service Station &amp; Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse</p>	The Loft & Ubuntu Space

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Tuesday, 26 November 2024**

15:10 to 17:00	<p><b>W02-4:</b> The 13th International Workshop on ICT Trends in Emerging Economies (WICTTEE 2024) <i>Session Chair: Ryan EBARDO</i></p> <p><b>W02-013S:</b> Minecraft as a Tool for Digital Game-Based Learning: Enhancing Conceptual Understanding and Attitudes in Mathematics Learning <i>Sakda CHALEEPLIAM, Sasivimol PREMTHAISONG &amp; Pawat CHAIPIDECH</i></p> <p><b>W02-008S:</b> Cognicraft: Smart Exam Question Generation with AI and Bloom's Taxonomy <i>Christian SAGADRACA, Zainal SANTOS, Danilo SIMON Jr., Marianne Jessica TOLENTINO &amp; Reymar VENTURA</i></p> <p><b>W02-004S:</b> Development and Evaluation of a Hybrid Mobile-Learning App Using Design Science Research (DSR) Framework <i>John Lorence VILLAMIN, Joselito Christian Paulus VILLANUEVA &amp; Joshua TUMOLVA</i></p>	Doreen Black Box
	<p><b>DSC:</b> Doctoral Student Consortium <b>Discussion</b></p>	The Loft
	<p><b>W04-4:</b> The 8th Computer-Supported Personalized and Collaborative Learning <i>Session Chair: Chia-Jung CHANG</i></p> <p><b>W04-006S:</b> Exploring the Effect of Collaborative Programming Learning Environment on Student's Computer Programming Competencies and Cognitive Learning <i>Chia-Jung CHANG &amp; Wen-Lung HUANG</i></p> <p><b>W04-009S:</b> Investigating the Impact of Kahoot! On EFL Grammar Learning <i>Jonathan Y. CHIN &amp; Ben CHANG</i></p> <p><b>W04-011S:</b> Designing an LLM-Based Dialogue Tutoring System for Novice Programming <i>Julieto PEREZ &amp; Ethel ONG</i></p>	The Hive
	<p><b>W06-4:</b> GenAI in Education – From Hallucinations to Reality: Integrating Learning Analytics and Generative AI for Enhancing Personalized Learning Experiences <i>Session Chair: Owen LU</i></p> <p><b>W06-011F:</b> Competency-Based Assessment in the Era of Generative Artificial Intelligence: Perspectives of Selected STEM Educators <i>Friday Joseph AGBO, Heather Kitada SMALLEY &amp; Kathryn NYMAN</i></p> <p><b>W06-006S:</b> A Case Study for Educators with ChatGPT and Plato's Allegory of the Cave <i>Anna Y.Q. HUANG, Jain-Wei TZENG, Chi-Sheng HUANG, Zhi-Qi LIU, Bryan Carl TANUJAYA &amp; Owen H.Q. LU</i></p> <p><b>W06-008S:</b> Supporting Students' Post-Exam Reflection Needs in College Automation Engineering Course Using LLM <i>Edward ANOLIEFO, Patrick OCHEJA, Regina OCHONU, Brendan FLANAGAN &amp; Hiroaki OGATA</i></p>	JJ Atencio Lighthouse
17:00 to 19:30	<b>Welcome Reception</b>	Ubuntu Space

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
MANILA, PHILIPPINES

## Conference Program

### Wednesday, 27 November 2024

C1: AIED/ITS

C2: CSCL

C3: ALT

C4: TEML

C5: EGG

C6: TELL

C7: PTP

BOPN Best Overall Paper Award Nominee

BSPN Best Student Paper Award Nominee

BTDPN Best Technical Design Paper Award Nominee

F Full Paper (20 minutes presentation + 5 minutes Q&amp;A)

S Short Paper (10 minutes presentation + 5 minutes Q&amp;A)

ES Extended Summary (9 minutes presentation + 5 minutes Q&amp;A)

#### Wednesday, 27 November 2024

09:00 to 10:00	<b>Opening Ceremony</b>	Hyundai Hall
10:00 to 10:20	<b>Coffee / Tea Break</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
10:20 to 11:20	<b>Keynote Speech: Dragan GAŠEVIĆ</b> <b>Getting Ready for the Age of AI: Developing Self-Regulated Learners</b> Session Chair: Jon MASON	Hyundai Hall
11:20 to 12:20	<b>Panel-3</b> <b>Learning Languages in "Smarter" Ways: Theory-Informed Utilization of Smart Technologies in Contextualized, Authentic &amp; Communicative Language Learning</b> <i>Lung-Hsiang WONG, Yun WEN, Vivian Wen-Chi WU, Yoshiko GODA &amp; Ting-Chia HSU</i>	Hyundai Hall
	<b>ALT-1</b> Session Chair: Ashwin T. S. <b>64F:</b> Proficiency Modeling in Junior High Math: Adapted Cognitive Statistical Models to E-Book Learning Contexts <i>Changhao LIANG, Kensuke TAKII &amp; Hiroaki OGATA</i> <b>98F:</b> An Embodied Projection Recognition System for Situated Learning to Enhance Learning Effectiveness and Self-Reflection Ability <i>Hui-Ting LIU, Zi-Ting DING, Su-Hang YANG, Jian-Yu WU, Jen-Hang WANG, Po-Yao CHAO, Yung-Yu ZHUANG &amp; Gwo-Dong CHEN</i>	Doreen Black Box
	<b>TEML-1</b> Session Chair: Ivica BOTICKI <b>71F BSPN:</b> Linking Real-World Experiences with Course Contents: A Text Mining Approach Toward Effective "There and Back Again" <i>Manabu ISHIHARA, Izumi HORIKOSHI &amp; Hiroaki OGATA</i> <b>75F BTDPN:</b> Marrying Physical and Virtual Realms: An Embodied, Multi-Modal Approach to Situational Learning in Digital Reality <i>Vando Gusti AL HAKIM, Yao-En CHEN, Meng-Heng LIN, Chia-Ying CHANG, Jen-Hang WANG, Chih-Kai CHANG, YungYu ZHUANG, Su-Hang YANG &amp; Gwo-Dong CHEN</i>	The Loft



**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Wednesday, 27 November 2024**

11:20 to 12:20	<b>AIED/ITS-1</b> <a href="#">Session Chair: Brendan FLANAGAN</a> <b>58F BSPN:</b> The Impact of Instructional Videos Supported by AI-Driven Tutoring System on EFL Listening and Speaking <i>Xiangyu TAN &amp; Xiuyuan ZUO</i> <b>137F:</b> LLM-Generated Personalized Analogies to Foster AI Literacy in Adult Novices <i>Cassie Chen CAO, Eason CHEN, Zoe FANG, Lydia Y CAO, Jionghao LIN &amp; Ruizhe LI</i>	The Hive
	<b>PTP-1</b> <a href="#">Session Chair: Sahana MURTHY</a> <b>24F:</b> Do Academic Stress and Risk Propensity Affect Behavioral Intention to Use ChatGPT Among University Students? <i>Brylle SAMSON, Ronnie LURIAGA &amp; Ryan EBARDO</i> <b>53F:</b> Who Is a Good Computational Thinker? Mapping Behavioral Dispositions of Middle-School Children Based on Real-Life, Algorithmic Tasks <i>Shashaank V. PINNAMARAJU, Lazar TONY &amp; Anveshna SRIVASTAVA</i>	JJ Atencio Lighthouse
	<b>International Program Committee (IPC) Meeting</b> (open meeting) All program committee members are welcome to attend this meeting	Campos Interactive Teaching Lab
12:20 to 13:20	<b>Lunch</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
13:20 to 14:00	<b>Theme-Based Invited Speech</b> <a href="#">Session Chair: Yun WEN</a> <b>How to Better Understand the Collaborative Component in Computer-Supported Collaborative Learning (CSCL): Current Landscape, Challenges and Future Prospects</b> <i>Johanna PÖYSÄ-TARHONEN</i>	Hyundai Hall
14:00 to 15:00	<b>ALT-2</b> <a href="#">Session Chair: Shinobu HASEGAWA</a> <b>196F BOPN:</b> Combining Multimodal Analyses of Students' Emotional and Cognitive States to Understand Their Learning Behaviors <i>Ashwin T S, Caitlin SNYDER, Celestine E. AKPANOKO, Srigowri M P &amp; Gautam BISWAS</i> <b>136S:</b> Development of Metacognitive Reflection Support System on Creative Discussion <i>Toshimasa SHIMIZU, Yuki HAYASHI &amp; Kazuhisa SETA</i> <b>149S:</b> Utilization of Japanese Public Educational Data by Retrieval Augmented Generation for Policy Research <i>Kyosuke TAKAMI</i>	Doreen Black Box
	<b>Meet the APSCE Executive Committee</b>	The Loft

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Wednesday, 27 November 2024**

14:00 to 15:00	<b>AIED/ITS-2</b> <b>Session Chair:</b> <a href="#">Maria Mercedes T. RODRIGO</a> <b>13S:</b> UniSpLLM: An Integrated Approach for Enhancing Reasoning and Education with Large Language Models <i>Hanyu ZHAO, Yuzhuo WU, Yang YU, Xiaohua YU &amp; Liangyu CHEN</i> <b>106S:</b> Availability and Effectiveness of Generative AI for Web-Based Investigative Learning <i>Yutaka WATANABE &amp; Akihiro KASHIHARA</i> <b>122S:</b> Developing a LLMs-Driven System Based on Human-AI Progressive Code Generation Framework to Assist Mathematics Learning <i>Chun Yan Enoch SIT, Yin YANG, Wing Kei YEUNG &amp; Siu Cheung KONG</i>	The Hive
	<b>TELL-1</b> <b>Session Chair:</b> <a href="#">Brendan FLANAGAN</a> <b>123F BSPN:</b> TAMMY: Supporting EFL Translation Practice with an LLM-Powered Chatbot <i>Steve WOOLLASTON, Brendan FLANAGAN, Patrick OCHEJA, Yiling DAI &amp; Hiroaki OGATA</i> <b>172F BTDPN:</b> Impact of Online Video Dubbing Activities on Grade 5 Students' Pronunciation, Accuracy, and Fluency in English Speaking: An Experimental Research <i>Min XIE &amp; Alex Wing Cheung TSE</i>	JJ Atencio Lighthouse
	<b>CSCL-1</b> <b>Session Chair:</b> <a href="#">Cheng-Huan CHEN</a> <b>31F:</b> Unveiling the Interplay of Students' Epistemic Emotions and Knowledge Building Activities in Design Studios <i>Alwyn Vwen Yen LEE, Chew Lee TEO, Aloysius ONG &amp; Katherine YUAN</i> <b>144F BOPN, BSPN:</b> MESHing Minds: Bridging the Gap Between Creativity and IoT Programming Through Collaborative Mixed Reality <i>Yusuke SAKABE, Emmanuel AYEDOUN &amp; Masataka TOKUMARU</i>	Campos Interactive Teaching Lab
15:00 to 15:20	<b>Coffee / Tea Break</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
15:20 to 16:50	<b>Panel-2</b> <b>Global Harwell in an Examination Driven Education System and an Excellence Pursuing Society: Possible? How? Better with Digital Technologies</b> <i>Fu-Yun YU, Tak-Wai CHAN, Sahana MURTHY, Su Luan WONG, Wenli CHEN, Hyo-Jeong SO &amp; Hiroaki OGATA</i>	Hyundai Hall



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

**Wednesday, 27 November 2024**

15:20 to 16:50	<p><b>ALT-3</b> <b>Session Chair: Ashwin T. S.</b></p> <p><b>97F:</b> Analyzing Student Behavior in Viat-Map: Steps and Time as Performance Indicators <i>Banni Satria ANDOKO, Vivin Ayu LESTARI, Agung Nugroho PRAMUDHITA, Amalia NURAINI, Inda Khoirun NISAK &amp; Tsukasa HIRASHIMA</i></p> <p><b>113F:</b> Comparison of Learners' Self-Direction Behavior Across Contexts and Phases <i>Junya ATAKE, Chia-Yu HSU, Huiyong LI, Izumi HORIKOSHI, Rwitajit MAJUMDAR &amp; Hiroaki OGATA</i></p> <p><b>131S:</b> Progressive Behavior Patterns of Online Discussion at Different Circle of Self-Regulated Learning <i>Shih-Hua HUANG, De-Yu SHIAU, Yung-Sian FANG &amp; Ting-Chia HSU</i></p> <p><b>143S:</b> Forest/CR: Critical Paper Reading Support System <i>Tomoya KII, Kazuhisa SETA &amp; Yuki HAYASHI</i></p>	Doreen Black Box
	<p><b>EGG-1</b> <b>Session Chair: Hyo-Jeong SO</b></p> <p><b>16F BSPN:</b> Design and Evaluation of the Usability of a Game-Based Learning Application for Learners with Dyslexia <i>Vincent GARCIA, Arnel OCAY, Joshua PERADILLA, Mary Rose SAGUIPED &amp; Myla Karen ARENAS</i></p> <p><b>72F:</b> Comparing Effects of Adaptive Gamification and One-Size-Fits-All Gamification on Students' Task Completion Process and Learning Performance <i>Shurui BAI &amp; Yingxue LIU</i></p> <p><b>162F BOPN:</b> Dialogue Game-Based Learning for AI Ethics Education <i>Hyo-Jeong SO &amp; Sung-Eun KIM</i></p> <p><b>125S:</b> Detecting Off-Task Behavior of Learners in Minecraft Using Exploration and Personalized Features <i>Maricel A. ESCLAMADO &amp; Maria Mercedes T. RODRIGO</i></p>	The Loft
	<p><b>AIED/ITS-3</b> <b>Session Chair: May Marie TALANDRON-FELIPE</b></p> <p><b>175F:</b> Evaluating the Performance of Copula-Based Item Response Theory Models for Interpretable Assessment <i>Eduardo GUZMÁN &amp; Eva MILLÁN</i></p> <p><b>80S:</b> Enhancing Diversity in Difficulty-Controllable Question Generation for Reading Comprehension via Extended T5 <i>Teruyoshi GOTO, Yuto TOMIKAWA &amp; Masaki UTO</i></p> <p><b>190S:</b> The Effect of Feature Reliability on the Generalization of Machine Learning Models in Educational Data <i>Yingbin ZHANG</i></p> <p><b>258ES:</b> Exploring High School Students' Transition from Traditional Search Engines to ChatGPT for Course Learning: A Push-Pull-Mooring Model Perspective <i>Chien-Liang LIN, Chih-Yu YANG, Pei-Chi WU, Yu-Cheng LIN &amp; Chi-Heng LI</i></p> <p><b>266ES:</b> Exploring Dialogue Patterns in Argumentation with Pre-Set ChatGPT Personas <i>Seunmin EUN &amp; Seonmin JIN</i></p>	The Hive

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Wednesday, 27 November 2024**

15:20 to 16:50	<b>PTP-2</b> <b>Session Chair: Jayakrishnan WARRIEM</b> <b>61F BOPN:</b> Representing Learning Progression of Unguided Exercise Solving: A Generalization of Wheel-Spinning Detection <i>Taisei YAMAUCHI, H. Ulrich HOPPE, Yiling DAI, Brendan FLANAGAN &amp; Hiroaki OGATA</i> <b>6S:</b> Factors Contributing to the Negative Online Learning Academic Self-Concept of College Students <i>Rex BRINGULA, Roman Paulo BAET, Ralph Lawrence GARCIA, Franchesca Mari MORALES, Jan Carlo RAMOS, Hanna Sophia SARMIENTO &amp; Edmon TORRES</i> <b>7S:</b> Teachers' Perspectives on Integrating AI Tools in Classrooms: Insights from the Philippines <i>Vanessa B. SIBUG, Vicky P. VITAL, John Paul P. MIRANDA, Emerson Q. FERNANDO, Almer B. GAMBOA, Hilene E. HERNANDEZ, Joseph Alexander BANSIL, Elmer M. PENECELLA &amp; Dina D. GONZALES</i> <b>10S:</b> Research on the Dual-Pathway Impact of Artificial Intelligence Technology on Teachers' Human-Machine Collaboration <i>Yujie XU &amp; Yiling HU</i> <b>30S:</b> Does Learning Interest Predict Academic Performance in an Interest-Driven HyFlex Course? <i>Liang Jing TEH, Su Luan WONG, Mohd Zariat Abdul Rani, Mas Nida MD KHAMBARI &amp; Sai Hong TANG</i>	JJ Atencio Lighthouse
	<b>SIG 2 Community Building (CB) Session</b> Computer-Supported Collaborative Learning and Learning Sciences (CSCL) Chair: <i>Lenka SCHNAUBERT</i> , University of Nottingham, United Kingdom	Campos Interactive Teaching Lab
16:50 to 17:50	<b>Poster Session 1</b> Posters Work-in-Progress Posters (WIPP) SATELUC	Innovation Lobby (2nd Floor)
18:00 to 22:00	<b>APSCE Executive Committee (EC) Meeting</b> (closed meeting)	

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

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### Thursday, 28 November 2024

C1: AIED/ITS

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C6: TELL

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BOPN Best Overall Paper Award Nominee

BSPN Best Student Paper Award Nominee

BTDPN Best Technical Design Paper Award Nominee

F Full Paper (20 minutes presentation + 5 minutes Q&amp;A)

S Short Paper (10 minutes presentation + 5 minutes Q&amp;A)

ES Extended Summary (9 minutes presentation + 5 minutes Q&amp;A)

#### Thursday, 28 November 2024

09:00 to 10:00	<b>Keynote Speech: Mirjam HAUCK</b> <b>Critical Virtual Exchange for Critical Global Citizenship Education</b> Session Chair: Yanjie SONG	Hyundai Hall
10:00 to 10:20	<b>Coffee / Tea Break</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
10:20 to 11:00	<b>Theme-Based Invited Speech: Ching Sing CHAI</b> <b>In Search of Intelligent Pedagogical Content Knowledge (IPACK)</b> Session Chair: Rwitajit MAJUMDAR	Hyundai Hall
	<b>Theme-Based Invited Speech: Wenli CHEN</b> <b>Multi-Modal Learning Analytics for Learning Design</b> Session Chair: Ivica BOTICKI	Doreen Black Box
11:00 to 12:00	<b>Panel-1</b> <b>Digital Technology for Inclusive and Equitable Quality Education</b> <i>Wei qin CHEN, Jon MASON, Faisal BADAR, Shitanshu MISHRA &amp; Maria Mercedes T. RODRIGO</i>	Hyundai Hall
	<b>ALT-4</b> Session Chair: Yilling DAI <b>4S:</b> Exploring the Relationship of Personality Domains and Visual Attention Patterns in Novice Programmers <i>Caren PACOL, Maria Mercedes RODRIGO &amp; Christine Lourrine TABLATIN</i> <b>35S:</b> Construction of a Japanese Language Learning Support System That Enables Word Accent Learning <i>Satoru KOGURE, Kazuki TOMITA, Yasuhiro NOGUCHI, Koichi YAMASHITA, Tatsuhiro KONISHI &amp; Makoto KONDO</i> <b>41S:</b> Developing a Feedback Analytic Tool to Support Instructor Reflection <i>Feng LIN, Chenchen LI, Rebekah Wei Ying LIM &amp; Yew Haur LEE</i> <b>139S:</b> Effect of Re-Composition Concept Mapping for Sharing Reference Maps on Serial Concept Mapping: A Preliminary Study <i>Rian FITRIANSYAH, Harry Budi SANTOSO, Lia SADITA, Baginda Anggun Nan CENKA, Syifa NURHAYATI, Yusuke HAYASHI &amp; Tsukasa HIRASHIMA</i>	Doreen Black Box



**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Thursday, 28 November 2024**

11:00 to 12:00	<b>AIED/ITS-4</b> <b>Session Chair:</b> Michelle BANAWAN <b>94F BOPN:</b> Predicting and Analyzing Students' Higher-Order Questions in Collaborative Problem-Solving <i>Shan ZHANG, Toni V. EARLE-RANDELL, Qian SHEN, Anthony F. BOTELHO, Maya ISRAEL, Kristy Elizabeth BOYER, Collin F. LYNCH &amp; Eric WIEBE</i> <b>120F BTDPN:</b> Reflection Support System with Audience Robots for Presentation Practice <i>Yuya KISHIMOTO &amp; Tomoko KOJIRI</i>	The Loft
	<b>TEML-2</b> <b>Session Chair:</b> Changhao LIANG <b>132F:</b> Classifying Self-Reflection Notes: Automation Approaches for GOAL System <i>Zixu WANG, Chia-Yu HSU, Izumi HORIKOSHI, Huiyong LI, Rwitajit MAJUMDAR &amp; Hiroaki OGATA</i> <b>50S:</b> Using Educational VR Systems to Promote Inquiry-Based Learning in Natural Science <i>Shu-Ying TSAI, Zhi-Hong CHEN &amp; Min-Hsuan WENG</i> <b>135S:</b> Generative Artificial Intelligence in Education: Evaluating Students' Self-Efficacy and Utilization in Their Homework <i>Elanie VIZCONDE, Ma. Rowena CAGUIAT &amp; Ethel ONG</i>	The Hive
	<b>PTP-3</b> <b>Session Chair:</b> Mas Nida MD KHAMBARI <b>19S:</b> Using a Teaching Framework to Identify Resilient and Persistent Teaching Practices During the Pandemic <i>Ma. Monica L. MORENO, Johanna Marion R. TORRES, Timothy Jireh GASPAR, Jenilyn A. CASANO &amp; Maria Mercedes T. RODRIGO</i> <b>92S:</b> Evaluating the Effectiveness of a Professional Development Course on Artificial Intelligence Literacy for Administrative Staff in Higher Education <i>Siu Cheung KONG, Zoe Wai Sum MAK, Yue WU &amp; Yin YANG</i> <b>140S:</b> From Textbooks to Classroom Implementation: Experience Report of Middle School Science Teachers' Pedagogy for Activity-Based Learning <i>Zun Phoo MO, Sunny Prakash PRAJAPATI, Sheeja VASUDEVAN &amp; Sahana MURTHY</i> <b>155S:</b> Appropriating AI-Powered Pedagogical Affordances for Vocabulary Learning <i>Xinyu GUO &amp; Yun WEN</i>	JJ Atencio Lighthouse
12:00 to 13:00	<b>Lunch</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
13:00 to 14:00	<b>Keynote Speech:</b> Michelle BANAWAN <b>Learning from Generative AI for Cognitive and Pedagogical Advancement</b> <b>Session Chair:</b> Maria Mercedes RODRIGO	Hyundai Hall



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
MANILA, PHILIPPINES

**Thursday, 28 November 2024**

14:00 to 15:30	<p><b>ALT-5</b> <b>Session Chair: Banni Satria ANDOKO</b></p> <p><b>48F BTDPN:</b> Designing Recommendations for Productive Learning Habit-Building from Learning Logs <i>Chia-Yu HSU, Izumi HORIKOSHI, Huiyong LI, Rwitajit MAJUMDAR &amp; Hiroaki OGATA</i></p> <p><b>101F:</b> Designing Interaction Scenario for Alleviating Persistence in Learning Strategies <i>So SASAKI &amp; Akihiro KASHIHARA</i></p> <p><b>166F:</b> Enhancing Vocational Training Through Immersive Technology: A Study on Digital Magic Mirrors <i>Jen-Hang WANG, Hung-Wei TSENG, Su-Hang YANG, Chih-Kai CHANG, Yung-Yu ZHUANG &amp; Gwo-Dong CHEN</i></p> <p><b>145S:</b> Facilitating Thinking like a Historian in Open-Ended Learning Space: A White Box Approach <i>Aoi MATSUURA, Yuki HAYASHI &amp; Kazuhisa SETA</i></p>	Doreen Black Box
	<p><b>CSCL-2</b> <b>Session Chair: Ben CHANG</b></p> <p><b>52S:</b> Students' Verbal Interaction Patterns in Computer-Supported Collaborative Learning: The Role of Individual Preparation <i>Wenli CHEN, Lishan ZHENG, Mei-Yee Mavis HO, Qianru LYU, Hua HU &amp; Zirou LIN</i></p> <p><b>88S:</b> Enhancing Social Learning in Active Video Watching <i>Ehsan BOJNORDI, Antonija MITROVIC, Matthias GALSTER, Sanna MALINEN, Jay HOLLAND &amp; Negar MOHAMMADHASSAN</i></p> <p><b>124S:</b> Rethinking Trust in Human-AI Collaboration in the Generative AI Era <i>Yijie LU &amp; Bo JIANG</i></p> <p><b>147S:</b> Infrastructuring for Collective Cognitive Responsibility: A Case Study of Student Knowledge Building Design Studio <i>Chew Lee TEO, Aloysius ONG, Alwyn LEE, Guangji YUAN &amp; Kennedy LOO</i></p> <p><b>148S:</b> Review of Different Assessment Methods Used by Online Inquiry-Based Learning Systems That Support Argumentation <i>Nitesh Kumar JHA, Plaban Kumar BHOWMIK &amp; Kaushal Kumar BHAGAT</i></p> <p><b>200S:</b> Investigating Secondary School Students' Academic Emotions in Data Science Learning <i>Gaoxia ZHU, Chew Lee TEO, Guangji YUAN, Chin Lee KER, Aloysius ONG &amp; Alwyn Vwen Yen LEE</i></p>	The Loft
	<p><b>EGG-2</b> <b>Session Chair: Jie-Chi YANG</b></p> <p><b>65F BTDPN:</b> A Robot-Assisted Scenario Training for Students with ASD <i>Ka Yan FUNG, Kwong Chiu FUNG, Tze-Leung Rick LUI, Feifan PANG, Huamin QU, Shenghui SONG &amp; Kuen Fung SIN</i></p> <p><b>103F:</b> Exploring the Impact of Incorporating Digital Escape Room on Learners' Performance and Motivation in Environmental Sustainability Education <i>Yu-Chao LAI &amp; Jie-Chi YANG</i></p> <p><b>133S:</b> Middle School Students' Ability to Detect Lies When Interacting with an Educational AI Robot <i>Ahmed SALEM &amp; Kaoru SUMI</i></p>	The Hive

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Thursday, 28 November 2024**

14:00 to 15:30	<b>PTP-4</b> <b>Session Chair: Shitanshu MISHRA</b> <b>114F BDPN:</b> Extraction of Important Characteristics for Data-Informed Guidance and Counseling from Daily Usage Log Data <i>Junya ATAKE, Chia-Yu HSU, Izumi HORIKOSHI &amp; Hiroaki OGATA</i> <b>146F:</b> Driving Informed EdTech Quality Decisionmaking: A Research-Practice Partnership-Based Solution for Diverse Stakeholders' Needs <i>Ishika ISHIKA, Angelina Susan PHILIP, Sheeja VASUDEVAN &amp; Sahana MURTHY</i> <b>20S:</b> Determinants of ChatGPT Adoption in Academe & Other Fields – A Review on Theoretical Perspective <i>Gerand Boy O. ELINZANO &amp; Michelle Renee CHING</i> <b>171S:</b> Exploring the Entanglement Between Technology and Pedagogy: A Case Study of Knowledge Building <i>Yee Yin TAN, Seng Chee TAN &amp; Chew Lee TEO</i>	JJ Atencio Lighthouse
	<b>SIG 10 Community Building (CB) Session</b> Learning Analytics and Educational Data Mining (LAEDM) Chair: Ashwin T S, Vanderbilt University, United States of America	Campos Interactive Teaching Lab
15:30 to 15:50	<b>Coffee / Tea Break</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
15:50 to 16:50	<b>ALT-6</b> <b>Session Chair: Shinobu HASEGAWA</b> <b>91S:</b> Boosting Course Recommendation Explainability: A Knowledge Entity Aware Model Using Deep Learning <i>Tianyuan YANG, Baofeng REN, Boxuan MA, Tianjia HE, Chenghao GU &amp; Shin'ichi KONOMI</i> <b>191S:</b> Error Tolerance in Automatic Short Answer Grading with Large Language Models: The Case of Handwriting Recognition Errors <i>Ziqi TAN, Yingbin ZHANG &amp; Su MU</i> <b>209ES:</b> Identifying Key Indicators of Proficiency in Junior High Math: Roles of Daily Handwriting Learning Logs <i>Yudai OKAYAMA, Changhao LIANG, Kensuke TAKII &amp; Hiroaki OGATA</i> <b>267ES:</b> Relationship Analysis Between Procrastination Behavior and Non-Cognitive Abilities <i>Yasuhisa TAMURA &amp; Keito MORINO</i>	Doreen Black Box



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

**Thursday, 28 November 2024**

15:50 to 16:50	<p><b>AIED/ITS-5</b> <i>Session Chair: Rwitajit MAJUMDAR</i></p> <p><b>151F:</b> Facilitating Holistic Evaluations with LLMs: Insights from Scenario-Based Experiments <i>Toru ISHIDA, Tongxi LIU, Hailong WANG &amp; William K. CHEUNG</i></p> <p><b>126S:</b> Is Internal State Feedback in an E-Learning Environment Acceptable to People? <i>Atsushi ASHIDA, Ryosuke KAWAMURA, Shizuka SHIRAI, Noriko TAKEMURA, Mehrasa ALIZADEH, Hideaki HAYASHI &amp; Hajime NAGAHARA</i></p> <p><b>211ES:</b> Integrating Explanations in Active Video Watching <i>Raul Vincent LUMAPAS, Antonija MITROVIC, Matthias GALSTER, Sanna MALINEN, Pasan PEIRIS &amp; Jay HOLLAND</i></p>	The Loft
	<p><b>TELL-2</b> <i>Session Chair: Yanjie SONG</i></p> <p><b>158F BOPN:</b> Open Knowledge and Learner Model: Mathematical Representation and Applications as Learning Support Foundation in EFL <i>Kensuke TAKII, Changhao LIANG &amp; Hiroaki OGATA</i></p> <p><b>157S:</b> The Effect of LINE Chatbot with Escape Game Design on English Learning Achievement, Situational Interest, and Student Engagement <i>Elva Yi-Fang LO &amp; Jerry Chih-Yuan SUN</i></p> <p><b>112S:</b> Examining Augmented Reality's Influence on Pronunciation Training: Insights from PinyinGuo's Application and Comparative Avatar Testing <i>Daria SINYAGOVSKAYA</i></p>	The Hive
	<p><b>PTP-5</b> <i>Session Chair: Aditi KOTHIYAL</i></p> <p><b>95S:</b> Determinants of ICT Competency Among Public School Teachers in Bukidnon <i>Gladys S. AYUNAR, Nathalie Joy G. CASILDO, May Marie P. TALANDRON-FELIPE, Kent Levi A. BONIFACIO, Jinky G. MARCELO &amp; Fe S. SEBUGUERO</i></p> <p><b>226ES:</b> Preliminary Exploration on the Dimensions of Digital Learning Agility Among Teachers in Malaysia <i>Nur Dania MOHD ROSLI, Kamilah ABDULLAH, Mas Nida MD. KHAMBARI, Su Luan WONG, Noor Syamilah ZAKARIA, Priscilla MOSES &amp; Nur Aira ABDRAHIM</i></p> <p><b>228ES:</b> Analysis of Factors Influencing Teacher Behavioural Engagement in Distance Training Based on MOA and SDT <i>Zhou JIN</i></p> <p><b>257ES:</b> The Impact of AI Literacy on Teacher Efficacy and Identity: A Study of Korean English Teachers <i>Seunmin EUN &amp; Anna KIM</i></p>	JJ Atencio Lighthouse



**ICCE 2024**  
32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

**Thursday, 28 November 2024**

16:50 to 17:50	<b>SIG 6 Community Building (CB) Session</b> Technology Enhanced Language Learning (TELL) Chair: <i>Yanjie SONG</i> , The Education University of Hong Kong, Hong Kong	JJ Atencio Lighthouse
	<b>Poster Session 2</b> Posters Work-in-Progress Posters (WIPP) SATELUC	Innovation Lobby (2nd Floor)
18:30 to 21:30	<b>Conference Banquet</b>	Leong Hall Roof Deck





**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

## Conference Program

**Friday, 29 November 2024**

C1: AIED/ITS

C2: CSCL

C3: ALT

C4: TEMPL

C5: EGG

C6: TELL

C7: PTP

BOPN Best Overall Paper Award Nominee

BSPN Best Student Paper Award Nominee

BTDPN Best Technical Design Paper Award Nominee

F Full Paper (20 minutes presentation + 5 minutes Q&A)

S Short Paper (10 minutes presentation + 5 minutes Q&A)

ES Extended Summary (9 minutes presentation + 5 minutes Q&A)

### Friday, 29 November 2024

09:00 to 10:00	<b>Keynote Speech: Seiji ISOTANI</b> <b>Personalized Gamification Experiences: From Design to Impact</b> Session Chair: Bo JIANG	Hyundai Hall
10:00 to 10:20	<b>Coffee / Tea Break</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
10:20 to 12:00	<b>ALT-7/8</b> Session Chair: Huiyong LI <b>70F:</b> Effectiveness of Information Organizing Activities After Lecture in Mathematics: A Comparison Between Kit-Build Concept Mapping and Structured Summary Writing <i>Lintang Matahari HASANI, Kasiyah JUNUS, Lia SADITA, Tsukasa HIRASHIMA &amp; Yusuke HAYASHI</i> <b>77F BSPN:</b> Automated Recommendations for Revising Lecture Slides Using Reading Activity Data <i>Erwin D. LOPEZ Z, Cheng TANG, Yuta TANIGUCHI, Fumiya OKUBO &amp; Atsushi SHIMADA</i> <b>40S:</b> Optimizing Causal Inference Approach for Exploring Shallow Reading Behavior with Generative Adversarial Networks <i>Yu BAI, Fuzheng ZHAO, Wenhao WANG &amp; Chengjiu YIN</i> <b>60S:</b> Exploring Linguistic Sophistication of Discussion Board Posts in University Learning Management Systems <i>Michelle P. BANAWAN, Clarence James MONTEROZO &amp; Maria Mercedes T. RODRIGO</i> <b>227ES:</b> Toward Contextualized Handwriting Process Analysis: Comparison Between Problem Types in Math <i>Shunsuke TONOSAKI, Taito KANO, Satomi HAMADA, Izumi HORIKOSHI &amp; Hiroaki OGATA</i>	Doreen Black Box



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

**Friday, 29 November 2024**

10:20 to 12:00	<p><b>TEML-3/4</b> Session Chair: Sasipim POOMPIMOL</p> <p><b>51F BOPN:</b> Low vs. High Immersion in Metaverse-Based Learning: How Pre-Service Teachers Balanced Between Instruction and Assessment in Learning Design <i>Darmawansah DARMAWANSAH, Dani PUSPITASARI &amp; Gwo-Jen HWANG</i></p> <p><b>160S:</b> Participatory Design of an AI Digital Textbook with Deaf and Hard-of-Hearing Students <i>Ga Young LEE, Jieun CHOI, Seonhee NA &amp; Hyo-Jeong SO</i></p> <p><b>161S:</b> Technology Considerations in Building Virtual Educational Avatars <i>Antun DROBNJAK &amp; Ivica BOTICKI</i></p> <p><b>194S:</b> Data-Driven Peer Recommendation and Its Applications in Extracurricular Learning <i>Peixuan JIANG, Changhao LIANG &amp; Hiroaki OGATA</i></p>	The Loft
10:20 to 11:10	<p><b>AIED/ITS-6</b> Session Chair: Riichiro MIZOGUCHI</p> <p><b>238ES:</b> Personalized Comment Reviewing in Active Video Watching: Investigation of Learners' Cognitive Load <i>Ehsan BOJNORDI, Antonija MITROVIC, Matthias GALSTER, Sanna MALINEN &amp; Jay HOLLAND</i></p> <p><b>251ES:</b> AI-Driven Feedback for Enhancing Students' Mathematical Problem-Solving: The ScaffoldiaMyMaths System <i>Daner SUN, Jingyun WANG, Lan YANG, Kee-lee CHOU, Zhixuan SONG &amp; Zhizi ZHENG</i></p> <p><b>259ES:</b> A Study on High School Students' Continuance Intention to Use ChatGPT for Learning Assistance: An Exploration Based on Self-Determination Theory <i>Chien-Liang LIN, Tian-Yun LIN, Shi-En LIN &amp; Yu-Chen LIN</i></p>	The Hive
	<p><b>CSCL-3</b> Session Chair: Gaoxia ZHU</p> <p><b>185F:</b> Online Making-Based Learning at Scale: Towards Equity in STEM Learning <i>Deeksha GAUTAM, Aditi KOTHIYAL, Rashmi SHEORAN, Neha GARG, Adithi IYER, Ashutosh BHAKUNI, Jay THAKKAR, Jyothi KRISHNAN &amp; Manish JAIN</i></p> <p><b>99S:</b> Verbal Interaction Patterns in Online Collaborative Learning Design: Comparison of High Performing and Low Performing Groups <i>Wenli CHEN, Lishan ZHENG, Mei-Yee Mavis HO, Hua HU &amp; Qianru LYU</i></p>	JJ Atencio Lighthouse

**ICCE 2024**32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES****Friday, 29 November 2024**

11:10 to 12:00	<b>TELL-3</b> <b>Session Chair:</b> Daria SINYAGOVSKAYA <b>115S:</b> Improve English Pronunciation at Word Level for Thai EFL Learners in Southern Region Using End-to-End Automatic Speech Recognition <i>Nattapol KRITSUTHIKUL, Kongpop BOONMA, Jirapond MUANGPRATHUB, Wasan NA CHAI &amp; Thepchai SUPNITHI</i> <b>128S:</b> Investigation on the Usage Status of a Support System for Writing English Paragraph Outlines in English Classes <i>Afifah ILHAM, Tomohiro KUROKI, Akira NAKANO &amp; Hidenobu KUNICHIKA</i> <b>152S:</b> Mapping Morphological Patterns: A Framework for Rinconada Bikol Language Morphological Analysis and Stemming <i>Tiffany Lyn PANDES &amp; Joshua MARTINEZ</i>	The Hive
	<b>PTP-6</b> <b>Session Chair:</b> Arlene VALDERAMA <b>183F:</b> Constructing Desirable Learning Habits: Evidence from an Instructional System Design Course Based on the IDC Theory <i>Anveshna SRIVASTAVA, Sandeep YADAV, Sahana MURTHY &amp; Sridhar IYER</i> <b>188F BSPN:</b> The Impact of Using an Online Collaborative Platform in Blended Learning on Postsecondary Vocational School Year One Students' Self-Regulated Learning Abilities: A Quasi-Experimental Research <i>Siyoun WU &amp; Alex Wing Cheung TSE</i>	JJ Atencio Lighthouse
12:00 to 13:00	<b>Lunch</b> Food Service Station & Dining Area: Ubuntu Space Food Service Station: The Loft Dining Area: The Loft, The Hive, JJ Atencio Lighthouse	The Loft & Ubuntu Space
13:00 to 14:00	<b>ALT-9</b> <b>Session Chair:</b> Anveshna SRIVASTAVA <b>9S:</b> Code Tracing Support Environment Based on Visualization of Cooperative Behavior of Multiple-Flows <i>Yasuhiro NOGUCHI, Kotaro SUNAMA, Satoru KOGURE, Raiya YAMAMOTO, Koichi YAMASHITA &amp; Tatsuhiko KONISHI</i> <b>90S:</b> Peer Feedback Feature Analysis with Large Language Models: An Exploratory Study <i>Qianru LYU, Zirou LIN &amp; Wenli CHEN</i> <b>214ES:</b> Relationship Between Students' Scores in Weekly Tests and Final Exam <i>Satomi HAMADA, Izumi HORIKOSHI &amp; Hiroaki OGATA</i> <b>218ES:</b> Exploring Reading Speed Profiles in EFL Extensive Reading <i>Hatsune ICHIDATE, Yiling DAI, Brendan FLANAGAN &amp; Hiroaki OGATA</i>	Doreen Black Box



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

**Friday, 29 November 2024**

13:00 to 14:00	<p><b>TELL-4</b> <a href="#">Session Chair: Leung Ho Philip YU</a></p> <p><b>14S:</b> Enhancing Chinese Language Education Through AI-Assisted Project-Based Learning: A Qualitative Study on Learning Values and Multimedia Skills Development <i>Satoko SUGIE</i></p> <p><b>184S:</b> Development of a Chatbot and Evaluation of Its Effects on Learning and Intrinsic Motivation of a Public Secondary School's Spanish Language Learners <i>Julian Eymard JANUBAS, Josiah Jose DEYSOLONG, Hanz Lucas ESTOPIA, Karl Mykell TABBAY &amp; Jun Rangie OBISPO</i></p> <p><b>186S:</b> Enhancing Language Learning Through Multimodal AI-Driven Feedback on Picture Descriptions: An Eye-Tracking Study <i>Ruibin ZHAO, Zhiwei XIE, Yipeng ZHUANG, Huixian LI, Philip L. H. YU</i></p>	The Loft
	<p><b>EGG-3</b> <a href="#">Session Chair: Ming-Chi LIU</a></p> <p><b>73S:</b> FLOU: Evaluating the Intrinsic Motivation of Learners in Gamifying Academic Programs Through a Gamified Mobile Application <i>Marl Vincent AGRAVANTE, Jeru Kian FERNANDEZ, Ma. Louisa PEREZ &amp; Joshua MARTINEZ</i></p> <p><b>164S:</b> Designing an Educational Game for Facilitating Development of Media and Information Literacy <i>Jun XIE, Xiang LI, Kotomi HASEGAWA, Zhichun LIU &amp; Frank REICHERT</i></p> <p><b>262ES:</b> Developing a Visualized Data Guessing Game to Assess Data Literacy <i>Ruei-Yi XIE &amp; Ming-Chi LIU</i></p>	The Hive
14:15 to 15:15	<p><b>Closing Ceremony</b></p>	Hyundai Hall



**ICCE 2024**

32<sup>nd</sup> International Conference  
on Computers in Education  
**MANILA, PHILIPPINES**

## Poster Session 1

**Wednesday, 27 November 2024, 16:50–17:50**

### C1: 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*

### C3: 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 Learning-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*

### C4: 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*

### C6: TELL

**127P:** Implementation and an Evaluation of a Search Function Allowing Misspelling for a Japanese Learning System

*Hideobu KUNICHIKA & Miguel Antonio VILLALOBOS ZUNIGA*

### C7: 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*





**ICCE 2024**  
32<sup>nd</sup> International Conference  
on Computers in Education  
MANILA, PHILIPPINES

## Poster Session 1

Wednesday, 27 November 2024, 16:50–17:50

### 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

- 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)*



**ICCE 2024**  
32<sup>nd</sup> International Conference  
on Computers in Education  
MANILA, PHILIPPINES

## Poster Session 2

Thursday, 28 November 2024, 16:50–17:50

### C1: 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, Tatsuhiko KONISHI & Yukihiro ITOH*

### C2: 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*

### C3: 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, Tatsuhiko 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 YAEHASHI*
- 156P:** Development of Laborer Digital Twin Generation and Visualization Function for Hazard Prediction in Off-Site Training  
*Kaito MINOHARA, Toshiki MUGURUMA, 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*



**ICCE 2024**

32<sup>nd</sup> International Conference  
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## Poster Session 2

**Thursday, 28 November 2024, 16:50–17:50**

### C5: 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*

### C7: 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, Nurfadhlin 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*