The 8th International Conference on Education and Multimedia Technology (ICEMT 2024)

The 14th International Conference on Education, Research and Innovation (ICERI 2024)

Tokyo, Japan | June 22-24, 2024

Organized By:

早稲田大学
WASEDA University

Supported By:

岡山大学
OKAYAMA UNIVERSITY

東京工科大学
TOKYO UNIVERSITY OF TECHNOLOGY

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Welcome Address

On behalf of the organizing committees, it is our pleasure to extend a warm welcome to all participants of The 8th International Conference on Education and Multimedia Technology (ICEMT2024) and The 14th International Conference on Education, Research and Innovation (ICERI 2024) which taking place in Tokyo, Japan from June 22-24, 2024. This conference is an ideal forum to showcase the latest research findings, listen to esteemed keynote and invited speakers, engage in oral and online sessions, and reconnect with old acquaintances while making new ones.

We are delighted to announce four enlightening keynote speeches by luminaries in their respective fields: Professor Yusuke Morita from Waseda University, Japan; Professor Benjamin W. Wah from The Chinese University of Hong Kong, China; Professor Qing Li from Hong Kong Polytechnic University, China and Associate Professor Chei Sian Lee from Nanyang Technological University, Singapore. Their contributions will illuminate the overarching themes of ICEMT 2024 and ICERI 2024.

In addition to these keynote addresses, we are honored to present 4 invited speeches from distinguished professionals such as Professor Jie Liu from Western Oregon University, USA; Associate Professor Chew Fong Peng from University of Malaya (UM), Malaysia, Associate Professor Jennifer J. Stokes, University of South Australia, Australia and Professor Edwin P. Christmann from Slippery Rock University, USA. These presentations are designed to delve into the nuances of our chosen topics and further expand our collective understanding.

Our program encompasses a rich tapestry of sub-themes, each designed to foster meaningful discussions and exchange of ideas. Within the ambit of ICEMT 2024 and ICERI 2024, our Parallel Sessions will explore subjects ranging from Educational Management, Innovation, and Psychology to Technology and AI in Education.

The success of these conferences hinges on the dedication of our organizing committee, whose tireless efforts and meticulous planning have ensured the seamless execution of this event. Additionally, our reviewers have played a crucial role in maintaining the academic rigor and relevance of the conference content.

We would like to express our sincere gratitude to all the speakers, presenters, and attendees for their contributions to this conference. Your expertise, insights, and enthusiasm are very important to the success of this event, and we truly believe that your participation will enrich our discussions and inspire new avenues of exploration.

Wishing you all a stimulating and rewarding conference experience.

Best Regards

Conference Committee

Conference Committee

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Prof. Qing Li, The Hong Kong Polytechnic University, China

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Dr. KOTRA BALAYOGI, Unity College of Teacher Education, India

Dr. Elsa Catalina Olivas Castellanos, Tecnologico de Monterrey, Mexico

Dr. Martina Benvenuti, University of Bologna, Italy

Conference Venue

International Conference Center, Waseda Campus, Waseda University

Address: 1 Chome-20-14 Nishiwaseda, Shinjuku-ku, Tokyo-to 169-0051

Japan

located in front of the Central Library of WASEDA University

WASEDA University is a private, independent research univercity in central Tokyo. Since 1882 Waseda has tirelessly challenged convention, in favor of progress and innovation.

The conference will be held on Waseda University International Conference Center, which is located on the main campus of the University, near the Waseda station of Subway Tozai-line, or about 3 km northeast of Japan Railways (JR) Shinjuku Station. The JR Shinjuku Station is accessible by either trains or airport limousine buses from the New Tokyo International Airport (Narita) within 2 hours.

Waseda Campus Map

International Conference Center, Waseda University

Campus Map website link:

https://www.waseda.jp/top/en/assets/uploads/2022/06/waseda-campus-map_202109.pdf

Campus Map QR Code:

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Transportation

From Narita Airport to Waseda Station

Route 1: JR Narita Express（about 1hour and 50mins）

Narita International Airport →Narita Express (1hour 30mins) → **Shinjuku Station** →JR Yamanote Line (bound for Ikebukuro, Ueno; Yamanote Line is expressed in light green in official signs.) →**Takadanobaba Station** →Metro Tozai Line (bound for Nishi-Funabashi) →**Waseda Station**

Route 2: Limousine Bus（about 2hours）

Narita International Airport →Narita Express (1hour 30mins) → **Shinjuku Station** →JR Yamanote Line (bound for Ikebukuro, Ueno; Yamanote Line is expressed in light green in official signs.) →**Takadanobaba Station** →Metro Tozai Line (bound for Nishi-Funabashi; Metro Tozai Line is expressed in light blue in official signs.) →**Waseda Station**

Route 3: Keisei Skyliner (about 2hours)

Narita International Airport →Keisei Skyliner (1hour 30mins) → **Ueno Station** →Metro Ginza Line (bound for Shibuya; Metro Ginza Line is expressed in orange in official signs.) →**Nihonbashi Station** →Metro Tozai Line (bound for Nakano; Metro Tozai Line is expressed in light blue in official signs.) →**Waseda Station**

From Haneda Airport to Waseda Station

Route 1: Keikyu Line (about 50mins)

Haneda International Airport →Keihin-Kyuko Line / Toei Asakusa Line (bound for Oshiage) (26mins) → **Nihonbashi Station** →Metro Tozai Line (bound for Nakano; Metro Tozai Line is expressed in light blue in official signs.) →**Waseda Station**

Route 2: Limousine Bus (about 1hour and 30mins)

Haneda International Airport →Limousine Bus (1hour) → **Shinjuku Station** →JR Yamanote Line (bound for Ikebukuro, Ueno; Yamanote Line is expressed in light green in official signs.) →**Takadanobaba Station** →Metro Tozai Line (bound for Nishi-Funabashi; Metro Tozai Line is expressed in light blue in official signs.) →**Waseda Station**

Route 3: Tokyo Monorail (about 1hour and 10mins)

Haneda International Airport →Tokyo Monorail (13mins) → **Hamamatuscho Station** →JR Yamanote Line (bound for Shinjuku; Yamanote Line is expressed in light green in official signs.) →**Takadanobaba Station** →Metro Tozai Line (bound for Nishi-Funabashi; Metro Tozai Line is expressed in light blue in official signs.) →**Waseda Station**

Transportation website link:

https://www.waseda.jp/top/en/access/waseda-campus

Transportation QR Code:

Dinner Restaurant

RIHGA Royal Hotel (Tokyo)
(15 minutes' walk from the Waseda University)

Located in the forest of Waseda, a land of lush greenery and culture and tradition, the hotel offers spacious guest rooms overlooking the Okuma Garden, which covers an area of 10,000 tsubo. Reception rooms for international conferences and a variety of restaurants are also available. The hotel offers the prestige that Rihga Royal Hotel has cultivated in Tokyo. We hope you will spend a relaxing time with our attentive service to your heart's content.

Guidelines of Presentation

Oral Presentation

- Each presentation will last for 15 minutes. Please arrange your time appropriately. You will be given 12 minutes to present your work and 3 minutes to answer questions from the chairs and audience.

- <u>Please enter the Session room 15 minutes before the session starts.</u> Your punctual arrival and active involvement in each session will be highly appreciated.

- Get your presentation slides or PDF files prepared and backed up.

- Laptops, projector & screen, laser sticks will be provided by the conference organizer.

Online Presentation

- Please set up the alarm to remind yourself for the real-time test and presentation.

- Join the Test Session before the Formal Session

- Prior to the formal meeting, presenters shall join the test room to ensure everything is on the right track. Please check your test time in this program. Please mute when you enter the zoom.

- General Users Download: https://zoom.us/

- Zoom information:

- Room: 882 5378 1250   Password: ICEMT2024

  https://us02web.zoom.us/j/88253781250?pwd=bMa5X8dH3Feipc96T6aQvRIwfqZoyW.1

Dress Code

- Please wear formal clothes or clothing with ethnic characteristics.

Important Notes

- **Please take care of your belongings during the conference. The conference organizer does not assume any responsibility for the loss of personal belongings of the participants.**

- Please wear your participation badge during the conference. There will be NO access for people without a badge. NEVER discard your badge at will.

- Accommodation is not provided. Delegates are suggested make early reservation.

- Please show the badge and meal coupons when dining.

- Please mute your phone and keep quiet during the conference.

Agenda Overview

Day 1 | June 22, 2024 | Saturday

Time	Activity	Zoom Info.
10:00-12:00	Online Testing	Zoom ID: 882 5378 1250 Password: ICEMT2024

Time	Activity	Venue
12:00-17:00	Sign-in and Conference Kit Collection	Third floor Ichijima Room

Day 2 | June 23, 2024 | Sunday

Time	Activity	Venue
09:00-09:05	Opening Remarks **Prof. Qun Jin, Waseda University, Japan**	**First floor Masaru Ibuka Auditorium**
09:05-09:10	Welcome Address **Prof. Benjamin W. Wah, The Chinese University of Hong Kong, China**	**First floor Masaru Ibuka Auditorium**
09:10-09:50	Keynote Speech 1 **Prof. Yusuke Morita, Waseda University, Japan** Speech Title: Digital Transformation in Higher Education from a Perspective of Educational Technology	**First floor Masaru Ibuka Auditorium**
09:50-10:30	Keynote Speech 2 **Prof. Benjamin W. Wah, The Chinese University of Hong Kong, China** Speech Title: Perceptual Quality of Fast Interactive Multimedia Games in Education	**First floor Masaru Ibuka Auditorium**
10:30-10:50	**Group Photo**	**Central Library**
10:50-11:30	Keynote Speech 3 (Online) **Prof. Qing Li, Hong Kong Polytechnic University, China** Speech Title: Toward an Edu-Metaverse Supporting Immersive Explorations and Collaborative Learning Through Knowledge Graph and VR Techniques	**First floor Masaru Ibuka Auditorium Zoom ID: 882 5378 1250 Password: ICEMT2024**

11:30-12:10	Keynote Speech 4 **Assoc. Prof. Chei Sian Lee, Nanyang Technological University, Singapore** Speech Title: Learning with Digital Technologies: Opportunities and Challenges	**First floor Masaru Ibuka Auditorium**
12:10-13:30	Lunch	**Conference Room 1 Conference Room 2**
13:30-13:50	Invited Speech 1 **Prof. Jie Liu, Western Oregon University, USA** Speech Title: Analyzing AI's Impact on Shaping College Students' Decision to Major in Computer Science	**Third floor Conference Room 1**
	Invited Speech 2 **Assoc. Prof. Chew Fong Peng, University of Malaya (UM), Malaysia** Speech Title: Malay Language Performance of the Candidate in the Malaysia Certificate of Education in a Decade	**Third floor Conference Room 2**
13:50-14:10	Invited Speech 3 **Assoc. Prof. Jennifer J. Stokes, University of South Australia, Australia** Speech Title: Adept and Enabled: An Australian Case Study of Enabling Pedagogy as Innovative Educational Practice to Support Students from Underrepresented Backgrounds at University	**Third floor Conference Room 1**
	Invited Speech 4 (Online) **Prof. Edwin P. Christmann, Slippery Rock University, USA** Speech Title: The Effects of CAI on Mathematics Achievement	**Third floor Conference Room 2 Zoom ID: 882 5378 1250 Password: ICEMT2024**
14:10-14:30	Coffee Break	**Conference Room 1 Conference Room 2 Common Labotory 7**
14:30-16:00	**Technical Session 1 Topic: Educational Management, Innovation, and Psychology Session Chair:** *Assoc. Prof. Violeta Roso, Chalmers University of Technology, Sweden*	**Third floor Conference Room 1**
	Technical Session 2 Topic: Multimedia Technology and Social Computing Session Chair: *Lecturer Dongkun Han, The Chinese University of Hong Kong, China*	**Third floor Conference Room 2**
	Technical Session 3 Topic: AI Integrated Education and Personalized Learning Session Chair: *Prof. Yung-Chi Lin, National Tsing Hua University*	**Fourth floor Common Labotory 7**

14:30-16:00	**Poster Session** **Topic: Educational Information Technology and Psychology** **Session Chair:** *Assoc. Prof. Sarimah binti Shamsudin, Universiti Teknologi Malaysia, Malaysia*	
16:30-18:00	**Technical Session 4** **Topic: Blended Learning and Virtual Learning** **Session Chair:** *Senior Lecturer Kim Fung Yip,* *The Chinese University of Hong Kong, China*	**Third floor** **Conference Room 1**
	Technical Session 5 **Topic: Digital Teaching and Game-Based Learning** **Session Chair:** *Assoc. Prof. Felipe Hernández Rodríguez,* *Tecnologico de Monterrey, Mexico*	**Third floor** **Conference Room 2**
	Technical Session 6 **Topic: Online Learning: Innovative Technologies and Students' Perceptions** **Session Chair:** *Asst. Prof. Yusen Lin, National United University*	**Fourth floor** **Common Labotory 7**
18:00-20:00	**Dinner**	**RIHGA Royal Hotel (Tokyo)**

Day 3 | June 24, 2024 | Monday

Time	Activity	Zoom Info.
10:00-12:00	**Technical Session 7** **Topic: AI-Enhanced Learning and Intelligent Touring System** **Session Chair:** *Prof. Jie Liu, Western Oregon University, USA*	**Third floor** **Conference Room 1**
	Technical Session 8 **Topic: Learning Management System and Educational Software Application** **Session Chair:** *Prof. Akinori Ito, Tohoku University, Japan*	**Third floor** **Conference Room 2**
	Technical Session 9 **Topic: Virtual Reality and Augmented Reality Technology in Education** **Session Chair:** *Prof. Nicia Guillén Yparrea,* *Tecnologico de Monterrey, Mexico*	**Fourth floor** **Common Labotory 7**
12:00-13:30	**Lunch**	**Conference Room 1** **Conference Room 2**

13:30-15:30	**Technical Session 10** **Topic: Bibliometric Analysis and Visualization of Literature Related to Educational Research** **Session Chair:** *Assoc. Prof. Jennifer Stokes, University of South Australia, Australia*	**Third floor** **Conference Room 1**
	Technical Session 11 **Topic: STEM Education and Subject Teaching** **Session Chair:** *Assoc. Prof. Mare Leino, Tallinn University, Estonia*	**Third floor** **Conference Room 2**
	Technical Session 12 **Topic: Technology and AI in Education** **Session Chair:** *Prof. Karina G. Coronado-Apodaca, Tecnológico de Monterrey, Mexico*	**Fourth floor** **Common Labotory 7**

Day 4 | June 25, 2024 | Tuesday

Time	Activity
10:00-18:00	**Social Event**

KEYNOTE SPEAKER 1

| Time | 09:10-09:50 | June 23 (UTC+9) | Room | Masaru Ibuka Auditorium |

Prof. Yusuke Morita

Waseda University, Japan

Speech Title: Digital Transformation in Higher Education from a Perspective of Educational Technology

BIO

Yusuke Morita, Ph.D., is a full professor in the Faculty of Human Sciences and Director of the Center for Teaching, Learning, and Technology (CTLT) at Waseda University in Japan. He oversees the faculty development program and is a project manager for Waseda DX (Digital Transformation), including the MOOCs project (WasedaX in edX). Dr. Morita earned his Ph.D. in Educational Technology from the Tokyo Institute of Technology. Before his current role, Dr. Morita held positions as a research associate at the Research Center for School Education at Naruto University of Education and as an assistant professor in the Department of Information Technology and Education at Nagasaki University. He has been a faculty professor at Waseda University since 2007. Dr Morita has also contributed to international research and collaboration as a visiting scholar at the University of Texas at Austin from 2004 to 2005 and the Massachusetts Institute of Technology (MIT) from 2014 to 2015 in the U.S. He was awarded the Best Paper Award (Japanese Journal on Educational Technology) in 2017. Additionally, he has served as an executive board member of the Japan Society for Educational Technology (JSET) and the Japan Society for Science Education (JSSE).

ABSTRACT

In recent years, as technology has advanced daily, teaching and learning methods, skills, and strategies in higher education have also been innovated. Educational technology is an interdisciplinary research field that proposes ways to use advanced technology in education effectively and solves problems in the teaching and learning field using technologies. However, not all professors and teachers accepted new technologies at that time. Therefore, faculty development became necessary during the COVID-19 pandemic. Education using generative AI and metaverses has attracted attention in recent years. As these latest technologies are used in the educational field, the role of educational technology research is to scaffold the effective use of technology in higher education. Some cases will show how faculty development can be carried out to utilize technologies more effectively in higher education.

KEYNOTE SPEAKER 2

| Time | 09:50-10:30 | June 23 (UTC+9) | Room | Masaru Ibuka Auditorium |

Prof. Benjamin W. Wah

The Chinese University of Hong Kong, China
ACM Fellow, IEEE Fellow

Speech Title: Perceptual Quality of Fast Interactive Multimedia Games in Education

BIO

Benjamin W. Wah is a Research Professor at the Chinese University of Hong Kong, and Franklin W. Woeltge Professor Emeritus of Electrical and Computer Engineering at the University of Illinois, Urbana-Champaign. Previously, he served as the Provost and Wei Lun Professor of Computer Science and Engineering of the Chinese University of Hong Kong, as well as the Franklin W. Woeltge Endowed Professor of Electrical and Computer Engineering and Professor of the Coordinated Science Laboratory of the University of Illinois, Urbana-Champaign, USA. Wah received his Ph.D. degree in computer science from the University of California, Berkeley, CA, in 1979. He has received many awards for his research and service contributions, including the IEEE-CS W. Wallace-McDowell Award (2006), the IEEE-CS Richard E. Merwin Award (2007), the IEEE-CS Tsutomu Kanai Award (2009), the Distinguished Alumni Award in Computer Science of the University of California, Berkeley (2011), and the Bronze Bauhinia Star of the Hong Kong Self Administrative Region (2021). Wah's research interests are nonlinear search and optimization, multimedia technologies, and artificial intelligence. Wah co-founded the IEEE Transactions on Knowledge and Data Engineering in 1988 and served as its Editor-in-Chief between 1993 and 1996. He is the Co-Editor-in-Chief of Computers and Education: Artificial Intelligence and the Honorary Editor-in-Chief of Knowledge and Information Systems. In addition, Wah served the IEEE Computer Society in various capacities, including Vice President for Publications (1998 and 1999) and President (2001). He is a Fellow of the AAAS, ACM, and IEEE.

ABSTRACT

With advances in multimedia technologies, many online games have been developed for educational purposes. These games are helpful tools for learning because they can be exciting and retain learners' attention. Moreover, playing fast-paced action games helps improve cognitive processes in learning. However, the quality experienced by users when playing cloud-based games over the Internet varies because network delays may render the response in these games sluggish, slow, or non-responsive. In this presentation, we examine the standards developed by the International Telecommunications Union (ITU-T) for measuring multimedia perceptual quality over the Internet. Examples of objective metrics include the Mean Opinion Score (MOS), Perceptual Evaluation of Speech Quality (PESQ), the E-model, Quality of Experience (QoE), and Quality of Service (QoS). These measures are application-specific and rely on quantitative metrics collected in real-time. Moreover, they are verified by subjective tests under specific operating conditions. We present a new approach that optimizes perceptual quality in real-time cloud-based interactive games. We develop control strategies to hide network delays to let users perceive that the games are run on networks without delays. Finally, we show examples illustrating the results.

KEYNOTE SPEAKER 3(Online)

| Time | 10:50-11:30 | June 23 (UTC+9) | Room | Masaru Ibuka Auditorium |

Prof. Qing Li

Hong Kong Polytechnic University, China
IEEE Fellow

Speech Title: Toward an Edu-Metaverse Supporting Immersive Explorations and Collaborative Learning Through Knowledge Graph and VR Techniques

BIO

Qing Li is a Chair Professor and Head of the Department of Computing, the Hong Kong Polytechnic University. He received his B.Eng. from Hunan University (Changsha), and M.Sc. and Ph.D. degrees from the University of Southern California (Los Angeles), all in computer science. His research interests include multi-modal data management, conceptual data modeling, social media, Web services, and e-learning systems. He has authored/co-authored over 500 publications in these areas, with over 36700 citations and H-index of 78 (source: Google Scholars). He is actively involved in the research community and has served as an Editor-in-Chief of Computer & Education: X Realitty (CEXR) by Elsevier, an associate editor of IEEE Transactions on Artificial Intelligence (TAI), IEEE Transactions on Cognitive and Developmental Systems (TCDS), IEEE Transactions on Knowledge and Data Engineering (TKDE), ACM Transactions on Internet Technology (TOIT), Data Science and Engineering (DSE), and World Wide Web (WWW) Journal, in addition to being a Conference and Program Chair/Co-Chair of numerous major international conferences. He also sits/sat in the Steering Committees of DASFAA, ER, ACM RecSys, IEEE U-MEDIA, and ICWL. Prof. Li is a Fellow of IEEE, AAIA, and IET.

ABSTRACT

Metaverse as an education platform aims at bringing students and educators together into an interactive virtual environment that could potentially unleash a much richer educational content medium due to the highly immersive learning experience. The driving forces railing the development of engaging education interactions between instructors and students in a metaverse environment stem from (1) the need to expand educational access, and (2) enhancing the convenience of learning processes. First, knowledge graphs (KGs) are increasingly been built for pedagogical purposes. To depict the rich but latent relations among different concepts in a course textbook, course KGs are constructed and refined interactively. However, the application of course KGs for real study scenarios and student career development remains largely unexplored and nontrivial. In this talk, we present a novel tool exploiting course knowledge graphs, to facilitate both intra-course study and inter-course development for students significantly. An interactive web system has been developed for both instructors to construct and manipulate course KGs, and for students to view and interact with knowledge concepts. Next, to visualize the centrality of a course KG based on various metrics, concept-level advising is designed, through which we propose a tailored algorithm to suggest the learning path based on what concepts students have learned. Course-level advising is instantiated with a course network, which indicates the prerequisite relations among different levels of courses, corresponding to the annually increasing curricular design and forming different major streams. Through building such an edu-metaverse, our work solves a pressing issue for edu-metaverse on how it can manifest to connect a broad range of learning material and educational concept together on a ubiquitous platform for users to learn and explore knowledge. To facilitate association, exploration, and engagement in collaborative learning, we combine the structure of KGs and the immersion of virtual reality (VR) in our pilot metaverse prototype, K-Cube VR, which is developed and tested to validate the underlying edu-metaverse theory and framework. Examples will also be provided to illustrate the effectiveness of our Edu-Metaverse approach.

KEYNOTE SPEAKER 4

| Time | 11:30-12:10 | June 23 (UTC+9) | | Room | Masaru Ibuka Auditorium |

Assoc. Prof. Chei Sian Lee

Nanyang Technological University, Singapore

Speech Title: Learning with Digital Technologies: Opportunities and Challenges

BIO

Dr. Chei Sian Lee is currently an Associate Professor at the Wee Kim Wee School of Communication and Information at the Nanyang Technological University in Singapore, where she is also the Associate Chair (Faculty). She is actively involved in research on issues related to everyday user-information interaction at work, school or play. Specifically, her research focuses on how digital and emerging technologies can be designed to facilitate everyday user-information exchanges and be used to change social behaviors, benefit communities, and create social good. More recently, she has been investigating the deepfakes phenomena from an information-oriented perspective. Dr Lee is on the editorial board for Computers and Education, Online Information Review, The Electronic Library and Journal for STEM Education Research. Dr Lee received her B.Sc. and M.Sc. degrees in Computer and Information Sciences from the National University of Singapore and her PhD in Management Information Systems from the University of Illinois at Chicago, Liautaud Graduate School of Business.

ABSTRACT

Digital and emerging technologies present both opportunities and challenges for learning. This presentation will showcase two projects leveraging digital and emerging technologies in the educational context. The first project examines the concept of searching as learning and how everyday digital technologies and generative artificial intelligence can be leveraged for learners searching for information during an educational transition. The second project explores the affordances of video conference technologies on learning. The future prospects and broader impacts of digital and emerging technologies on learning will also be discussed.

INVITED SPEAKER 1

| Time | 13:30-13:50 | June 23 (UTC+9) | | Room | Conference Room 1 |

Prof. Jie Liu

Western Oregon University, USA

Speech Title: Analyzing AI's Impact on Shaping College Students' Decision to Major in Computer Science

BIO

Dr. Jie Liu is a tenured full professor in the Computer Science Division at Western Oregon University (WOU), bringing over more than three decades of experience to the academic realm. He earned his Ph.D. in Computer Science from Oregon State University in 1993, specializing in Parallel Processing.

Outside of academia, Dr. Liu has shared his expertise with various government agencies and renowned enterprises such as Microsoft, HP, and HollySys, just to name a few. In roles ranging from consultant to senior Software Engineer/Data Engineer and web architect, he has cultivated a diverse skill set. Recent projects at HPI have focused on Mobile, ETL, and Big Data, and AI, showcasing his proficiency across emerging technological domains.

As a prolific researcher, Dr. Liu has made significant contributions to the academic landscape, publishing over 50 peer-reviewed papers covering topics such as big data security, networks, data processing, and parallel processing. Recognized for his expertise in Blockchain and Big Data, he has been invited to author a series of articles for China's Financial News and provide specialized Blockchain training to HollySys, demonstrating a commitment to advancing knowledge dissemination and industry application. Dr. Liu became interested in Computer Science education recently, especially with the recent introduction and popularity of Generative AI.

Dr. Liu has delivered over 200 invited talks at various universities and organizations in both the USA and China. He currently serves as a visiting professor at Beijing Jiaotong University and Xuchang University.

ABSTRACT

Since the introduction of ChatGPT, the discourse surrounding Generative Artificial Intelligence (GenAI) has reached a crescendo, fueled by projections of its potential impact on software engineering job markets. This study delves into the intriguing question: to what extent does this media narrative shape the decisions of students when considering a major in Computer Science? Additionally, we explore the nuanced aspect of pronouns, investigating if and how they contribute to this decision-making process.

Our investigation unfolds within the framework of a 100-level online course titled "Introduction to Computer Science Non-Majors." This course is meticulously crafted to introduce fundamental Computer Science concepts and basic coding skills to students pursuing degrees outside the purview of Computer Science. Amid a spectrum of assignments, our focus narrows in on two of five discussion questions, each designed to elicit insights into the students' technological inclinations and, crucially, their perceptions of majoring in Computer Science, if they were to make that decision again.

The journey begins with the inaugural discussion question, assigned in the first week, prompting students to introduce themselves and share their favored technologies or frequently used tools. Since the question sample contains their instructor's pronouns, coupled with students' names, we have a window into the diverse pronouns employed by students. The crux of our exploration lies in the fourth discussion question posed during weeks seven and eight. By then students have learned topics such as the History and Basics of computer science,

Hardware and Software, The Internet and Web, Operating Systems, Computer Applications, Web/Mobile Apps, Privacy, and coding with branches and loops. Then, students are candidly asked whether, given the chance to choose a major again, they would opt for Computer Science and, crucially, the rationale behind their decisions. The richness of their responses, preserved over the past five years of teaching, forms the basis of our nuanced analysis.

Through this investigation, we aim to discern patterns in students' choices by examining the intersectionality of pronouns and potential major in Computer Science preferences. By comparing aggregate data before and after 2023, we seek to unveil trends that could be indicative of the influence of GenAI discourse, particularly against the backdrop of widespread layoffs in the United States.

Respecting the privacy of our participants, we employ internal keys to anonymize responses during data collection and analysis. The findings will be presented in an aggregated format to ensure confidentiality while shedding light on the intersection of GenAI publicity and students' decisions to major in Computer Science.

In presenting our insights, we hope to contribute valuable perspectives to the ongoing dialogue on the evolving landscape of technology education, unraveling the intricate factors that influence students' academic choices.

INVITED SPEAKER 2

| Time | 13:30-13:50 | June 23 (UTC+9) | | Room | Conference Room 2 |

Assoc. Prof. Chew Fong Peng

University of Malaya (UM), Malaysia

Speech Title: Malay Language Performance of the Candidate in the Malaysia Certificate of Education in a Decade

BIO

Associate Professor Dr. Chew Fong Peng is the Chair of the Centre for Research in Language Education (CRiLE), Faculty of Education, University of Malaya (UM), Malaysia. She teaches Malay Language Education, Chinese Language Education, and early childhood education programs. She has presented approximately 180 working papers in international and international seminars and conferences in Malaysia and foreign countries, published 9 books, 148 articles published in journals, 74 papers in conference proceedings, 45 chapters in books, 21 translated books including creative writings, 14 edited books, and edited creative writings. She is the book editor of Taylor & Francis, editor for Malaysian Year 4, 5, and 6 History textbooks, and Year 1 Arts and Music Education textbooks. Assoc. Prof. Dr. Chew has completed 31 research projects, 10 of which were led by Chew. She won many medals in the academy and innovative expo, besides being listed in Marquis Who's Who in the World 2011, 2012, 2014, 2015, 2017, 2018, 2019, and 2020. Chew is an article reviewer for established international journals on the Web of Science and Scopus, such as Frontiers in Psychology, Frontiers in Education, Asia-Pacific Education Researcher, Asia Pacific Journal of Education, SAGE Open, Educational Research and Reviews (ERR), Pertanika: Journal of Social Sciences and Humanities, GEMA Online, etc. Associate Professor Dr. Chew is also a member of the editorial board of many national and international journals including the Journal of Contemporary Educational Research, Review of Educational Theory, GATR Global Journal for Business & Social Science Review, and Advisory of International Research and Development Center for Publication (IRDCP). She was invited as a visiting professor at Peking University, China from October 2011 to June 2012.

ABSTRACT

Malay is the national language in Malaysia by Article 152 of the Constitution of Malaysia and became the sole official language. Those applying for government jobs in Malaysia must pass the Malaysia Certificate of Education (MCE) or O-Level Malay Language without exception. The Malay language is accepted by those who are looking to enter public universities and services. Thus passing the MCE Malay Language is of utmost importance for secondary school students. This study analyzes the questions of the MCE Malay Language to find out the format of the examination papers and the trend of performance of the Form V candidate in the MCE ranging from 2011 to 2019. The analysis indicated that the questions for MCE Malay Language covered all the levels of Bloom's Taxonomy. The difficulty level for Paper I is at a high level because it involves creation in parallel with the cognitive domains as described in Bloom's Taxonomy. In Paper II, the majority of items consisted of medium-level items followed by low-level items and high-level items. The results of the comparison MCE results for Malay language subjects from 2011 to 2019 showed a similar pattern which is the percentage of candidates who obtained distinction grades were higher than excellent, passed, and failed. Therefore, secondary school candidates must keep up efforts to learn and master the Malay language to guarantee them a good prospect in the future.

INVITED SPEAKER 3

| Time | 13:50-14:10 | June 23 (UTC+9) | Room | Conference Room 1 |

Assoc. Prof. Jennifer J. Stokes

University of South Australia, Australia

Speech Title: Adept and Enabled: An Australian Case Study of Enabling Pedagogy as Innovative Educational Practice to Support Students from Underrepresented Backgrounds at University

BIO

Assoc. Prof. Jennifer Stokes is the Associate Director of the Teaching Innovation Unit and a Senior Lecturer in Education Futures. She currently coordinates courses in Digital Literacy and Future Ideas. she employs innovative teaching approaches to build student engagement, with a focus on technology, equity, interactivity and digital learning. She was received a 2018 Australian Award for University Teaching and a 2016 UniSA Teaching Citation for my work in enabling pedagogy, and a 2017 Digital Learning Citation with Rebecca Godwin and Cameron McTernan for 'leadership in digital learning through innovative course design which empowers students as digital citizens and producers'. In 2017-2018 she coordinated and developed the UniSA Online core course Critical Approaches to Online Learning with OCF Lucy Andrew, leading to a team nomination as finalists for a UO Award.

In recent years, her research has focused on digital learning and enabling pedagogy. she has published on policy and enabling programs and presented nationally and internationally on these themes. She has also published on digital media, diversity, and enabling pedagogies. She served as Deputy Chair of the National Association of Enabling Educators of Australia from 2017 to 2018 and the Executive Board until March 2019. Her current work examines the intersection between digital learning, authentic assessment and enabling pedagogies. She regularly publishes and present research. Earlier academic publications focused on media and student engagement.

She has worked at the University of South Australia since 2001, teaching across a range of subject areas in the School of Creative Industries (Previously: Communication, International Studies and Languages), including Film and Television, Media Arts, Foundation Studies and Cultural Studies courses. In her "spare" time, she produced the micro-budget indie film 'Justice Squad' with director Daniel Lawrance. The film was released in 2012 and screened in Australia and the USA.

ABSTRACT

As developed nations investigate how to best prepare for emerging challenges and upskill individuals as knowledge workers, there is an increased focus on tertiary attainment. In Australia, enabling programs are an educational intervention designed to provide a pathway to university for students from underrepresented backgrounds, wherein they gain academic literacies, build learner identities, and earn a score for undergraduate application. This paper investigates pedagogical innovation via these programs to determine why enabling pedagogy produces strong learning outcomes for new students and provide insights applicable to university education more broadly. Semi-structured interviews were conducted with ten undergraduate students who entered university via the enabling program pathway. Through thematic analysis [1], informed by the ADEPT framework for enabling pedagogy [2], their reflections provide deep insight into the student experience and

outcomes. Responses focus on the role of enabling educators, inclusive attitudes, and clear expectations which work to support the development of effective learning strategies and a 'tool kit' for success at undergraduate and beyond. This research offers insight into the lived experience of university students from underrepresented backgrounds, while also identifying strategies which support transformative learning outcomes.

INVITED SPEAKER 4 (Online)

| Time | 13:50-14:10 | June 23 (UTC+9) | | Room | Conference Room 2 |

Prof. Edwin P. Christmann

Slippery Rock University, USA

Speech Title: The Effects of CAI on Mathematics Achievement

BIO

Edwin P. Christmann, professor in the curriculum and instruction/educational leadership department at Slippery Rock University and earned his Ph.D. at Old Dominion University. He is the program director of SRU's EdD Program and has served as a contributing editor to the National Science Teachers Association's middle schools journal, Science Scope, serves on the editorial review boards of several other research journals, and has authored the books Technology-Based Inquiry for Middle School and Beyond the Numbers: Making Sense of Statistics; and he has coauthored Interpreting Assessment Data: Statistical Techniques You Can Use, Designing Elementary Instruction and Assessment: Using the Cognitive Domain, Designing and Assessing IEP Instruction for Students with Mild Disabilities: Using the Cognitive Domain, and Designing Middle and High School Instruction and Assessment: Using the Cognitive Domain. In addition, he has written over 100 articles and is a frequent speaker at international conferences. He currently teaches graduate-level courses in measurement and assessments, science education, and statistics, which are built on the foundation of his math and science experiences.

ABSTRACT

This meta-analysis examined the research question "What differences exist among the academic achievement levels of mathematics students who were exposed to computer-assisted instruction, and those who were not exposed to this instruction?" Hence, a comparison of the mathematics achievement between students who received either traditional instruction or traditional instruction supplemented with computer-assisted instruction (CAI) was conducted. From the twenty-seven conclusions, an overall mean effect size of 0.236 was calculated, indicating that, on average, students receiving traditional instruction supplemented with CAI attained higher academic achievement than did 59.48 percent of those receiving traditional instruction alone. Moreover, a .094 correlation between effect size years indicates that the effect of CAI on mathematics achievement has slightly increased during this period

TECHNICAL SESSION 1

| Time | 14:30-16:00 | June 23 (UTC+9) | | Room | Conference Room 1 |

Session Topic: Educational Management, Innovation, and Psychology
Session Chair: Assoc. Prof. Violeta Roso,
Chalmers University of Technology, Sweden

Paper Details

Paper ID	Title & Authors
TM1064-A 14:30-14:45	**Drama as "A" for transdisciplinary in STEAM education in the context of posthumanism** **Presenter:** Giedre Straksiene **Affiliation:** Klaipeda University, Lithuania
DE1059 14:45-15:00	**Adept and Enabled: A Case Study of Pedagogical Innovation and Educational Practice in Australian University Enabling Programs to Support Students from Underrepresented Backgrounds.** **Presenter:** Jennifer Stokes **Affiliation:** University of South Australia, Australia
DE1174-A 15:00-15:15	**Framing Developing Narratives of Pedagogic Frailty: Open Dialogue and Safe Spaces** **Presenter:** Suzannah Pugh **Affiliation:** Swansea University, UK
DE1032-A 15:15-15:30	**Development of Analogical Reasoning in 3- and 4-Year-Old Children** **Presenter:** Chin-Wei Chang **Affiliation:** National Chiayi University
DE1039-A 15:30-15:45	**Aesthetics of E-Management in School Administration** **Presenter:** Meng-An Lin **Affiliation:** National Taiwan Normal University
TM1100 15:45-16:00	**Higher-order Thinking Skills of STEM Education: A Bibliometric Analysis in Scopus Database** **Presenter:** Chih-Hung Wu and Yi-Ting Lin **Affiliation:** National Taichung University of Education

TECHNICAL SESSION 2

| Time | 14:30-16:00 | June 23 (UTC+9) | | Room | Conference Room 2 |

Session Topic: Multimedia Technology and Social Computing
Session Chair: Lecturer Dongkun Han, The Chinese University of Hong Kong, China

Paper Details

Paper ID	Title & Authors
TM1038 14:30-14:45	**Combining Digital Support with Teacher Support: Engagement of Chinese College Students in Asynchronous Online Learning Based on Self-Determination Theory** **Presenter:** Hao Zhang **Affiliation:** Shanghai Normal University Tianhua College, China
TM1098 14:45-15:00	**An Exploratory Study of Artificial Intelligence-Generated Content (AIGC) and Brand Design** **Presenter:** Mei-Tzu Chou **Affiliation:** National Taichung University of Education
DE1024 15:00-15:15	**The Impact of Phenomenon-Based Learning on Awareness and Importance of Taxonomy Regulation through Green Product Labeling** **Presenter:** ChengChen Chen **Affiliation:** National Taipei University of Technology
DE1103-A 15:15-15:30	**Gender Aspect in Context of Social Pedagogy and Democracy** **Presenter:** Leino Mare **Affiliation:** Tallinn University, Estonia
TM1133 15:30-15:45	**Active Study: An Architecture for Decentralized Learning Data Aggregation and Management Based on ActivityPub** **Presenter:** Tao Zhou **Affiliation:** Daiichi Institute of Technology, Japan
TM1101 15:45-16:00	**AI Techniques in Table Tennis: A Bibliometric Analysis in Scopus Database** **Presenter:** Yi-Xiang Chen **Affiliation:** National Taichung University of Education

TECHNICAL SESSION 3

| Time | 14:30-16:00 | June 23 (UTC+9) | | Room | Common Labotory 7 |

Session Topic: AI Integrated Education and Personalized Learning
Session Chair: Prof. Yung-Chi Lin, National Tsing Hua University

Paper Details

Paper ID	Title & Authors
DE1016 14:30-14:45	**Does An AI-Designed Emotional Game Benefit Young Students in Terms of Emotional Communication and Expression Skills?** **Presenter:** Chiumi Chen **Affiliation:** National Taipei University of Technology
TM1146-A 14:45-15:00	**Delivering Virtual Simulation-Based Education for Virtual Consultation Training** **Presenter:** Christina Siaw Cheok Liew **Affiliation:** Vin University, Vietnam
TM1141 15:00-15:15	**Design and Development of Culture-Based Learning Management System for City College of Calamba: A Qualitative Approach** **Presenter:** Regina Garcia Almonte **Affiliation:** City College of Calamba, Philippines
DE1064 15:15-15:30	**Enhancing e-Assessment in Higher Education: An exploration of an Automated Essay Feedback System** **Presenter:** Mary Sze Yie Chye **Affiliation:** National Institute of Education, Singapore
TM1097 15:30-15:45	**ARCS Model for Exploring the Enhancement of Learning Motivation and Engagement through AIGC Technology in Computer Graphics Courses** **Presenter:** Guang-Mei Liou **Affiliation:** National Taichung University of Education
TM1116 15:45-16:00	**The Experience of Virtual Reality in Gerontological Nursing among Nursing Students** **Presenter:** Mei Hua Kerry Hsu and Ye Qian Liao **Affiliation:** Macao Polytechnic University, China

TECHNICAL SESSION 4

| Time | 16:30-18:00 | June 23 (UTC+9) | | Room | Conference Room 1 |

Session Topic: Blended Learning and Virtual Learning

Session Chair: Senior Lecturer Kim Fung Yip,
The Chinese University of Hong Kong, China

Paper Details

Paper ID	Title & Authors
TM1159-A 16:30-16:45	**Using Eye-Tracking to Compare Pre-Service and In-Service Middle School Mathematics Teachers' Noticing Competence in Mixed-Reality Simulations: A Case Study** **Presenter:** Yung-Chi Lin **Affiliation:** National Tsing Hua University
TM1150 16:45-17:00	**Increasing The Competitiveness of Human Resource Through Online Video Conference-Based Learning Recognition** **Presenter:** Sri Setyo Iriani **Affiliation:** Universitas Negeri Surabaya, Indonesia
DE1081-A 17:00-17:15	**Internationalization at Home: A Case Study of Virtual Cross-Cultural Learning Experience for Undergraduate Hospitality and Tourism Students in Hong Kong and Japan** **Presenter:** Ada Fong **Affiliation:** The Hong Kong Polytechnic University, China
DE1142-A 17:15-17:30	**Understanding Chinese Undergraduates' Self-Regulated Listening Learning in Blended English Courses** **Presenter:** Binyu Yang **Affiliation:** Renmin University of China, China
DE1027 17:30-17:45	**Exploring the Potential of Immersive Technology for Virtual Teaching and Learning: A Metaverse Conference Experience** **Presenter:** Ka Wing Vanessa Kiu **Affiliation:** The Chinese University of Hong Kong, China
TM1009 17:45-18:00	**The Students' Perspective on Computational Thinking through Flipped Classroom in K-12 Programming Course** **Presenter:** Wan Chong Choi **Affiliation:** Illinois Institute of Technology, USA

TECHNICAL SESSION 5

| Time | 16:30-18:00 | June 23 (UTC+9) | | Room | Conference Room 2 |

Session Topic: Digital Teaching and Game-Based Learning
Session Chair: Assoc. Prof. Felipe Hernández Rodríguez,
Tecnologico de Monterrey, Mexico

Paper Details

Paper ID	Title & Authors
TM1060 16:30-16:45	**From Concept to Assessment: Developing a GeoGebra Assisted Mathematics Test to Measure Semiotic-Spatial Thinking using Abstraction in Context Framework** **Presenter:** Mayang Dintarini **Affiliation:** Universitas Negeri Surabaya, Indonesia
TM1170 16:45-17:00	**Dialogic Reading of Digital English Storybooks on Children's Reading Engagement in China** **Presenter:** Sarimah Shamsudin **Affiliation:** Universiti Teknologi Malaysia, Malaysia
TM1037 17:00-17:15	**The Implementation of Paperrater and Grammarly in English Teaching to Boost the Writing Skills of Non-English Undergraduate Students** **Presenter:** Ferdy Anthonius **Affiliation:** STAB Nalanda, Indonesia
TM1171-A 17:15-17:30	**A Theoretical Model of Students' Acceptance on The Adoption of AI** **Presenter:** TSE Po Man **Affiliation:** The Hong Kong Polytechnic University, China
TM1075-A 17:30-17:45	**Aesthetic Experience of Mathematics Education in E-Learning** **Presenter:** Meng-An Lin **Affiliation:** National Taiwan Normal University
TM1129-A 17:45-18:00	**Developing a Digital Facilitation Toolkit to Improve Team Dynamics in Online Design Thinking Workshop** **Presenter:** Shang-En Li **Affiliation:** National Cheng Kung University

TECHNICAL SESSION 6

| Time | 16:30-18:00 | June 23 (UTC+9) | Room | Common Labotory 7 |

Session Topic: Online Learning: Innovative Technologies and Students' Perceptions

Session Chair: Asst. Prof. Yusen Lin, National United University

Paper Details

Paper ID	Title & Authors
TM1054-A 16:30 -16:45	**Improved Learning by Improved Teaching. Enhanced Students' Satisfaction by Variety of Teaching Methods Applied, and by Time and Content Allocated Exams** **Presenter:** Violeta Roso **Affiliation:** Chalmers University of Technology, Sweden
TM1154 16:45 -17:00	**Harnessing an AI-Driven Analytics Model to Optimize Training and Treatment in Physical Education for Sports Injury Prevention** **Presenter:** Beau Gray Habal **Affiliation:** FEU Institute of Technology, Philippines
TM1050 17:00-17:15	**Computational Thinking on Mathematical Problem-Solving: Trend and Aspect** **Presenter:** Reni Dwi Susanti **Affiliation:** Universitas Negeri Surabaya, Indonesia
TM1092 17:15-17:30	**Demystifying the Potential of 360-Degree Video Technology Application in Hospitality and Tourism Education** **Presenter:** Anderson Ngelambong **Affiliation:** Universiti Teknologi MARA, Malaysia
TM1099-A 17:30-17:45	**A Hybrid Intelligent Teacher System for Engineering Hands-on Training** **Presenter:** Dongkun Han **Affiliation:** The Chinese University of Hong Kong, China
DE1065-A 17:45-18:00	**Evaluating the Effectiveness of Case Study Method in Enhancing Marketing Learning in Hospitality Education** **Presenter:** Pui Yan Clare Fung **Affiliation:** The Hong Kong Polytechnic University, China

TECHNICAL SESSION 7

| Time | 10:00-12:00 | June 24 (UTC+9) | | Room | Conference Room 1 |

Session Topic: AI-Enhanced Learning and Intelligent Touring System
Session Chair: Prof. Jie Liu, Western Oregon University, USA

Paper Details

Paper ID	Title & Authors
TM1026 10:00-10:15	**Exploring the Language Features and Content of Self-Diagnosed Mental Health Disorders on Twitter: A Social Computing Approach** **Presenter:** Edward Jay M. Quinto **Affiliation:** Mapua University, Philippines
TM1074-A 10:15-10:30	**A Small Team Dreaming Big: Making "Bladder Basics," an Educational, Interactive Cartoon for Kids** **Presenter:** William Bottini, Huy Tran, Katherine Cao and Lauren Watley **Affiliation:** Stanford University, USA
TM1148 10:30-10:45	**Learner Use of AI-Generated Feedback for Written Corrective Feedback in L2 Writing: Usefulness, User Proficiency and Attitude** **Presenter:** Xiaolan Hou **Affiliation:** University of Electronic Science and Technology of China, China
DE1037 10:45-11:00	**Application of Artificial Intelligence as A Tool for the Continuous Improvement of Higher Education Courses.** **Presenter:** Karina Coronado-Apodaca **Affiliation:** Tecnologico de Monterrey, Mexico
TM1131-A 11:00-11:15	**Unveiling the Pedagogical Advantages of ChatGPT in AI-Enhanced Collaborative Learning** **Presenter:** Junyi Li **Affiliation:** Duke Kunshan University, China
TM1067 11:15-11:30	**A Single-File Markup Format for Generation of Interactive Programming Exercises with Auto-Grading** **Presenter:** Weerachai Anotaipaiboon **Affiliation:** Thammasat School of Engineering, Thailand

DE1051-A 11:30-11:45	**Streamlining E-Learning Content Creation: A Study on Lecturer Feedback to AI-Enhanced Materials** **Presenter:** Apimuk Muangkasem **Affiliation:** Srinakharinwirot University, Thailand
TM1011 11:45-12:00	**Exploring Institutional Development in Online Design Education: Meeting the Needs of Higher Education** **Presenter:** Huang-Liang Lee **Affiliation:** Chaoyang University of Technology

TECHNICAL SESSION 8

| Time | 10:00-12:00 | June 24 (UTC+9) | | Room | Conference Room 2 |

Session Topic: Learning Management System and Educational Software Application

Session Chair: Prof. Akinori Ito, Tohoku University, Japan

Paper Details

Paper ID	Title & Authors
TM1005-A 10:00-10:15	**Identifying Fake News in the Digital Age: A Systematic Literature Review** **Presenter:** William Ko-Wai Tang **Affiliation:** Hong Kong Metropolitan University, China
TM1155 10:15-10:30	**A Study on the Model of Teaching Mathematics Aesthetics Based on Dynamic Geometry Software** **Presenter:** Sailan Chen **Affiliation:** Guangzhou University, China
TM1083 10:30-10:45	**Personalized Online Feedback with LMS Annotation Plugin: Promoting Learners' Self-monitoring, Evaluation, and Reflection** **Presenter:** Maurish Sofie Rahmi Batita **Affiliation:** Universitas Negeri Malang, Indonesia
TM1020-A 10:45-11:00	**Merging Augmented Reality in Online Shopping** **Presenter:** Wen-Yau Liang **Affiliation:** National Changhua University of Education
TM1058 11:00-11:15	**Efficiency Assessment and Design Proposal for Computerized Student Record Management System in Higher Education Institutions** **Presenter:** Regina Garcia Almonte **Affiliation:** City College of Calamba, Philippines
TM1003 11:15-11:30	**The Calibration of Science Achievement Test Based on Integrated Islamic Curriculum** **Presenter:** Islamiani Safitri **Affiliation:** Universitas Labuhanbatu, Indonesia
TM1126 11:30-11:45	**Valentine's Day in the Metaverse: Examining School Event Celebrations in Virtual Worlds Using an Appreciative Inquiry**

	Approach **Presenter:** Manuel Garcia **Affiliation:** FEU Institute of Technology, Philippines
TM1090 11:45-12:00	**A Study of DM-TPACK Evaluation Methods for Middle School Mathematics Teachers** **Presenter:** En Zhang **Affiliation:** Guangzhou University, China

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TECHNICAL SESSION 9

| Time | 10:00-12:00 | June 24 (UTC+9) | | Room | Common Labotory 7 |

Session Topic: Virtual Reality and Augmented Reality Technology in Education

Session Chair: Prof. Nicia Guillén Yparrea, Tecnologico de Monterrey, Mexico

Paper Details

Paper ID	Title & Authors
TM1102 10:00-10:15	**Students' Acceptance Towards Technology-Enhanced Learning with Augmented Reality Technology in Sustainable Tourism Education.** **Presenter:** Silverina Kibat **Affiliation:** Universiti Teknologi Mara, Malaysia
TM1161 10:15-10:30	**A Quiz System for Online Medical Device Identification on APP** **Presenter:** Ting-Sheng Weng **Affiliation:** National Chiayi University
TM1124-A 10:30-10:45	**Enhancing Virtual Reality Course through Team-Based and Project-Based Learning** **Presenter:** Mau-Tsuen Yang **Affiliation:** National Dong Hwa University
TM1007 10:45-11:00	**Volumetric Video Use Cases for XR Immersive Streaming** **Presenter:** Peter Fasogbon **Affiliation:** Nokia Technologies, Finland
TM1125 11:00-11:15	**The Audience Perception to AI Voicebot News: An Experimental Analysis** **Presenter:** Yuan He **Affiliation:** Jinan University, China
DE1191-A 11:15-11:30	**Research on the Effectiveness of Using Virtual Reality Technology to Assist Learning in Architectural Construction Courses** **Presenter:** Yi-Jao Chen **Affiliation:** National University of Kaohsiung
TM1086 11:30-11:45	**Advancing Physics Pedagogy with Augmented Reality: Insights from a Systematic Review** **Presenter:** Nurussaniah **Affiliation:** Universitas Negeri Malang, Indonesia

TM1115 11:45-12:00	**An Empirical Exploration of Teaching Existence in a Blended Learning Environment ——Taking Advanced Mathematics as an Example** **Presenter:** Lu Sun **Affiliation:** Huangshan university, China

TECHNICAL SESSION 10

| Time | 13:30-15:30 | June 24 (UTC+9) | | Room | Conference Room 1 |

Session Topic: Bibliometric Analysis and Visualization of Literature Related to Educational Research

Session Chair: Assoc. Prof. Jennifer Stokes, University of South Australia, Australia

Paper Details

Paper ID	Title & Authors
TM1151 13:30-13:45	**Unlocking the Potential of Digital Learning: A Bibliometric Analysis of Learning and Teaching in Digital Learning Environments** **Presenter:** Binar Kurnia Prahani **Affiliation:** Universitas Negeri Surabaya, Indonesia
TM1147 13:45-14:00	**Competency Framework in Higher Education: A Bibliometric Analysis from 2000 to 2023** **Presenter:** Ridi Ferdiana **Affiliation:** Universitas Gadjah Mada, Indonesia
DE1006 14:00-14:15	**Practical Use and The Validity of Inclinometer in Measuring Student's RealTime Body Balance Control Through One Leg Standing Test** **Presenter:** Firdaus Hendry Prabowo Yudho **Affiliation:** Universitas Negeri Jakarta, Indonesia
TM1173 14:15-14:30	**Redefining Learning Spaces: The Impact of Virtual Environments in Engineering Education** **Presenter:** Felipe Hernández-Rodríguez **Affiliation:** Tecnologico de Monterrey, Mexico
TM1117 14:30-14:45	**BLEVA-G vs. BLEVA-I MODEL: A Comparative Study on Learner' Learning Outcomes with Different Cognitive Style** **Presenter:** Christina Martha Wajabula **Affiliation:** Universitas Negeri Malang, Indonesia
TM1174-A 14:45-15:00	**Business Intelligence and Analytics Education Research: Current Status and Future Directions** **Presenter:** Zarinah Hamid **Affiliation:** International Islamic University Malaysia, Malaysia
TM1070-A 15:00-15:15	**The Impact of Net Jargon on Language Teaching and Learning: Exploring the Challenges and Opportunities in Incorporating Online**

	Communication Styles in the Classroom **Presenter:** Ghaida Ali Alzahrani **Affiliation:** Najran University, Saudi Arabia
TM1034 15:15-15:30	**Exploring the Efficacy of Multimedia Technology in Fostering Technology-Enabled Learning and Teaching: Bridging Educational Gaps** **Presenter:** Teodoro Jr Feria Revano **Affiliation:** FEU Institute of Technology, Philippines

TECHNICAL SESSION 11

| Time | 13:30-15:15 | June 24 (UTC+9) | | Room | Conference Room 2 |

Session Topic: STEM Education and Subject Teaching

Session Chair: Assoc. Prof. Mare Leino, Tallinn University, Estonia

Paper Details

Paper ID	Title & Authors
DE1015-A 13:30-13:45	"To Err Is Human…" Revisiting Oral Error Correction in Class **Presenter:** David Steven Rosenstein **Affiliation:** Ben-Gurion University of the Negev, Israel
TM1143 13:45-14:00	A Bibliometric Analysis of Virtual Reality Research on Critical Thinking Skills and Student Responses using PLS-SEM **Presenter:** Nadi Suprapto **Affiliation:** Universitas Negeri Surabaya, Indonesia
DE1068-A 14:00-14:15	A Study on The Concept of Psychological Literacy Among Military Academics **Presenter:** Chia-Chun Wu **Affiliation:** National Defense University
TM1045-A 14:15-14:30	Associations between Blended Learning Effectiveness, Student Engagement, Learning Outcomes, and Academic Motivations in Higher Education **Presenter:** Xiaotian Han **Affiliation:** Shanghai Normal University Tianhua College, China
TM1094 14:30-14:45	Current Status and Prospects of Research on Mobile-Assisted Language Learning in China: A Bibliometric Analysis Based on CiteSpace **Presenter:** Yuhua Fang **Affiliation:** Wuhan Qingchuan University, China
DE1013 14:45-15:00	A Comprehensive Review of the Formal Training of Future Schoolteachers in Health, Safety, and Risk Prevention in Spanish Public Universities. Is this Training in Line with International Recommendations? **Presenter:** Begona Abecia **Affiliation:** University of Zaragoza, Spain

TM1130 15:00-15:15	**"Digestive System Journey": A Serious Game for Children Based on Experiential Learning Theory** **Presenter:** Yuqing Liu **Affiliation:** The University of Edinburgh, UK

TECHNICAL SESSION 12

| Time | 13:30-15:15 | June 24 (UTC+9) | | Room | Common Labotory 7 |

Session Topic: Technology and AI in Education
Session Chair: Prof. Karina G. Coronado-Apodaca,
Tecnológico de Monterrey, Mexico

Paper Details

Paper ID	Title & Authors
TM1145-A 13:30-13:45	**AI and Language Teaching: Integrating AI Technology in University Language Classrooms** **Presenter:** Dorothy Chow **Affiliation:** The Hong Kong Polytechnic University, China
TM1025 13:45-14:00	**Outcomes Attainment in Online Learning: An Analysis of Engineering Students' Perceptions using MAXQDA** **Presenter:** Edward Jay M. Quinto **Affiliation:** Mapua University, Philippines
TM1065-A 14:00-14:15	**Personalized Inquiry Support Framework (PISF): Empowering Self-Learning across Disciplines with NLP Engagement** **Presenter:** Kim Fung Yip **Affiliation:** The Chinese University of Hong Kong, China
TM1012-A 14:15-14:30	**Exploring AI Technology Adoption in Higher Education Using Self-Determination Theory.** **Presenter:** Jin Lo **Affiliation:** National Dong Hwa University
TM1172 14:30-14:45	**Metaverse Integration in COIL to Improve Intercultural Competence in Higher Education: A Case Study** **Presenter:** Nicia Guillén-Yparrea **Affiliation:** Tecnologico de Monterrey, Mexico
TM1004 14:45-15:00	**Implementation of Final Project Choice Policy to Address Thesis Cheating** **Presenter:** Rizli Ansyari **Affiliation:** Universitas Negeri Yogyakarta, Indonesia
TM1062 15:00-15:15	**Selection of Key Sentences from Lecture Video Transcription and Its Application to Feedback to the Learner**

	Presenter: Akinori Ito
	Affiliation: Tohoku University, Japan

POSTER SESSION

Time   14:30-16:00 | June 23 (UTC+9)

Session Topic: Educational Information Technology and Psychology
Session Chair: Assoc. Prof. Sarimah binti Shamsudin,
Universiti Teknologi Malaysia, Malaysia

Paper Details

Paper ID	Title & Authors
TM1017-A 14:30-14:45	**Investigating User Behavioral Intentions and Satisfaction in Chinese-Style Mobile Games through Immersive Experiences and the Technology Acceptance Model** **Presenter:** Hui-Yun Yen **Affiliation:** Chinese Culture University
DE1072-A 14:45-15:00	**Examining the Relationship between Psychological Capital and Employment Anxiety: The Moderating Roles of Future Time Perspective and Institutional Support** **Presenter:** Mei-Ling Wang **Affiliation:** Tamkang University
TM1043-A 15:00-15:15	**AI Assistants in Statistics Education: Empowering Students with AI-driven Analysis and Visualization** **Presenter:** King Tai Leung and MO Yee Lam Elaine **Affiliation:** Hang Seng University of Hong Kong, China
TM1069-A 15:15-15:30	**The Effects of Integrating Coding into the STEM Course on the Attitudes toward STEM, Hands- on Abilities, and Coding Concepts of Fifth and Sixth-Grade Female Students** **Presenter:** Yi-Kuan Tseng **Affiliation:** National Central University
TM1068-A 15:30-15:45	**Developing and Evaluating the Impact of A Combined Virtual Reality and Augmented Reality Electricity Learning System on Students' Science Achievement, Conceptual Understanding, and Science Learning Motivation** **Presenter:** Tzu-Ling Wang **Affiliation:** National Tsing Hua University

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DE1005-A 15:45-16:00	**The Practice Experiences of Middle Leadership in Elementary Schools** **Presenter:** Chih-Feng Lai **Affiliation:** National Taichung University of Education

Delegates

| Name	Affiliation
Benaya Gibor	Israel
Ahlam Mohammed Al-Abdullatif	King Faisal University, Saudi Arabia
Supachok Ruangsri	Srinakharinwirot University, Thailand
Suchanin Bunthununthakul	Srinakharinwirot University, Thailand
Duangjai Seekheio	Srinakharinwirot University, Thailand
Rungarun Rojrattanadamrong Chaisri	Srinakharinwirot University, Thailand
Sunisa Sumirattana	Srinakharinwirot University, Thailand
Chi-sanupong Intharakasem	Srinakharinwirot University, Thailand
Pawanrat Wattana	Srinakharinwirot University, Thailand
Kanokphon Chantanarungpak	Srinakharinwirot University, Thailand
Lisa Lisdiana	Universitas Negeri Surabaya, Indonesia
Bambang Sigit Widodo	Universitas Negeri Surabaya, Indonesia
Shelly Andari	Universitas Negeri Surabaya, Indonesia
Kenny Low	Ministry of Education, Singapore
Ella Reichelt	Simon Fraser University, Canada
William Brannen	Michinoku Coca-Cola Bottling Co., Ltd., Japan

Social Event
Tuesday-June.25, 2024

This one-day Tokyo city tour included a total of five places of interest: Odaiba, Roppongi Hills, Senso-ji Temple, Ueno Park, and Tokyo Tower. Below is a rough description of these five sites.

Odaiba

Located in Minato-ku, Tokyo, Japan, Odaiba is an area of man-made islands with a wealth of tourist resources, and is Tokyo's newest concentration of entertainment venues, favored by people, especially the young. It is also one of Tokyo's most striking economic highlights, offering not only spectacular sea views but also unique technological facilities and historical and cultural heritage. You can feel the harmony of the modern city's prosperity and natural beauty here. There are many landmarks in Odaiba including the Statue of Liberty, Rainbow Bridge, Odaiba Park, Carriage Museum, and Seaside Park.

Roppongi Hills
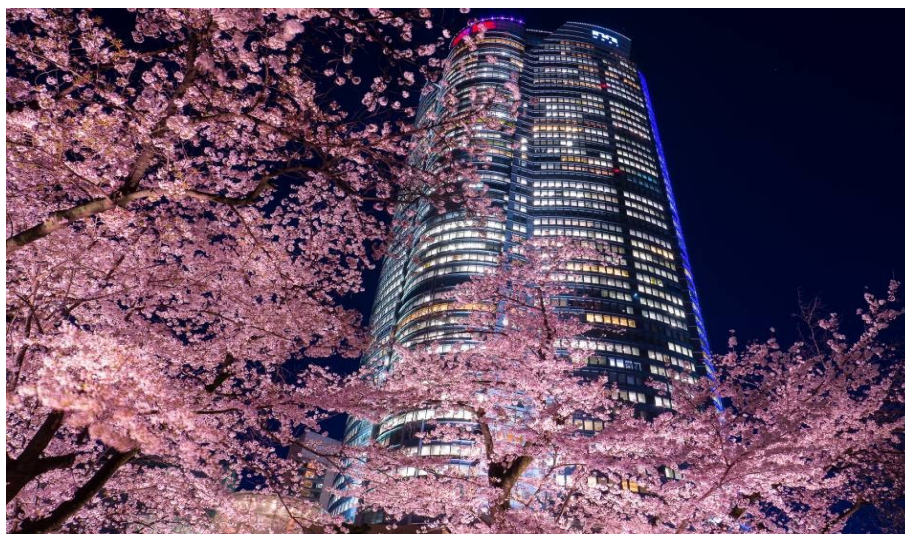
Roppongi Hills, located south of Akasaka and north of Azabu in Minato-ku, is one of the most eye-catching new attractions in Tokyo in recent years, and one of the city's bustling streets, known for its nightlife and concentration of foreigners. There are restaurants, TV stations, supermarkets, hotels, Tokyo's largest movie theater, and a wide range of entertainment facilities. Roppongi Hills, which is identified as a "cultural center", covers an area of 759,000 square meters and consists of five major commercial and residential areas, including West Walk, where Mori Building and shopping mall restaurants are located, Hollywood Plaza, where clothing stores and restaurants are located, North Tower, where simple food, fast food and convenience stores are located; Hillside, where movie theaters, Japanese style houses, and Asian restaurants are clustered; and an east-west Roppongi Bekozaka Avenue.

Senso-ji Temple

Senso-ji Temple is located in Taito District, Tokyo. It is Japan's existing "Edo-style" public entertainment place. Senso-ji Temple is the oldest temple in Tokyo and one of the most important Buddhist temples, as well as one of the most colorful and popular. Built in 628, it has a history of more than 1,300 years. The temple enshrines Sakyamuni Buddha, which has a long history and important status. The gate of the temple is called "Thunder Gate", and its official name is "Wind Thunder Gate", which is a symbol of Japan and the Asakusa area. The architectural style of Senso-ji Temple is unique and is a fusion of Japanese culture and art. The buildings here are rich in color and exquisitely carved, and are of great ornamental value both in appearance and interior.

Ueno Park

A park of culture, temples, an expansive zoo and springtime cherry blossom, Ueno Park is one of Japan's five oldest public parks, and it is also the first park in Japan. It's best known for Ueno Zoo, many museums, and spectacular cherry blossoms in the spring. The park opened to the public in 1873, its official name is Ueno Onshi-Koen, meaning "the Ueno Imperial Gift Park". Ueno Park is located in Taito-ku, Tokyo, Japan. It has beautiful scenery and profound historical and cultural heritage. Ueno Park embraces a wide range of styles combining Japanese tradition and modernity. It is a veritable place of leisure and recreation, as well as a hub of Tokyo culture. There are three major excursions in Ueno Park: cherry blossom viewing, visiting museums and historical sites, and animal viewing.

Tokyo Tower
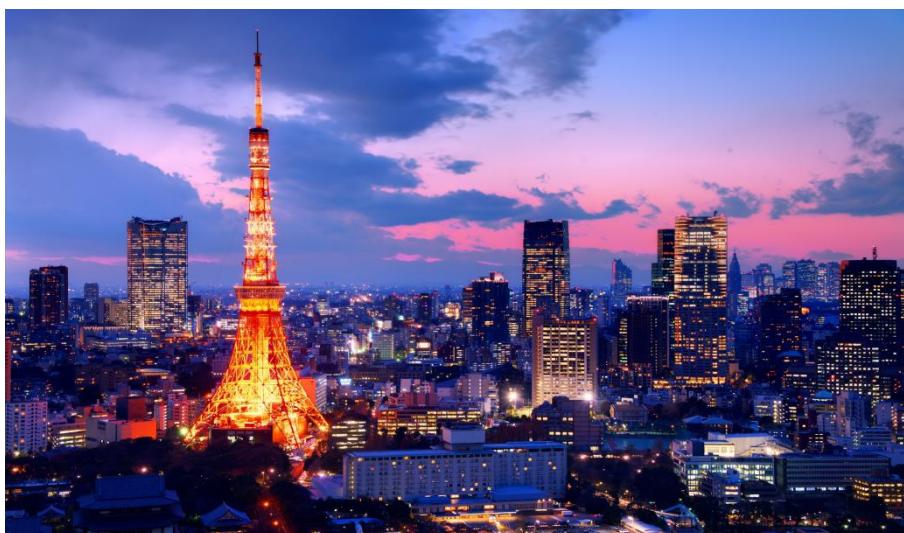
Tokyo Tower, is a radio tower located in Shiba Park, Tokyo, Japan. Built in 1958, it is the second tallest structure in Japan after the TOKYO SKYTREE. The structure was modeled after the Eiffel Tower in Paris and is painted white and international orange. Since its completion, the Tokyo Tower has become a famous landmark and tourist attraction in Tokyo, and is often featured in a large number of popular works and cultures related to Tokyo. More than 150

million people have visited the tower. Directly below the tower is the four-story Tokyo Tower Building, which has an entrance to the observation deck, a Tokyo Tower Aquarium, and a variety of souvenir stores, and from which visitors can take an elevator to visit the two observation decks. The Tokyo Tower has a large observation deck at 150 meters and a special observation deck at 249.9 meters, offering a panoramic view of Tokyo and, on a clear day, Mount Fuji.

NOTE:

The following attractions & sights are for reference, detailed arrangements are depending on the conditions on the day.

Tokyo Tour

Duration: 10:00 AM - 6:00 PM, 10 hours

Date: June 25th

Cost: $70 USD per person

Transport: Chartered minibus/car

Payment can be made at the time of registration. An invoice will be provided along with the paper registration fee.

Additional details about the tour will be provided in the program once the trip is confirmed.

Your tour includes:

What is **included**?

●Fuel ●Tolls ●City entry fee ●Empty driving fare ●Driver ●Vehicle ●Meal allowance ●Basic parking fee

What is **excluded**?

●Lunch and dinner ●Entrance tickets ●Personal expenses ●Overtime fee or all items not listed in the "Price includes" section

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8th icEEL

2024 8th International Conference on Education and E-Learning

Tokyo, Japan | November 23-25, 2024.

2024 8th International Conference on Education and E-Learning (ICEEL 2024) will be held in Tokyo, Japan during November 23-25, 2024.

ICEEL 2024 aims to bring together researchers, scientists, engineers, and scholar students to exchange and share their experiences, new ideas, and research results about all aspects of Education and E-learning, and discuss the practical challenges encountered and the solutions adopted. The conference will be held every year to make it an ideal platform for people to share views and experiences in Education and E-learning and related areas.

CONFERENCE TOPICS

Topic 1 Advanced Technologies for Learning and Teaching

Collaborative and Cloud Technologies
E-publishing/digital Libraries
Learning Bots
Learning Portfolios
Social Networks
Social Software (podcasting, wikis, blogs, etc.)
Wearable Technologies

Topic 2 Open Education

Free and Open Source Software
MOOC's, Open Teaching, and Open Educational Resources
Open Access Publishing
Open Education Copyright and Other Legal Issues
Open Educational Projects, Partnerships, and Consortia
Participatory/Contributory Communities

Topic 3 Innovative Approaches to Learning and Learning Environments

Augmented and Virtual Reality
Authentic, Contextualized, and Real-World Learning
Case, Scenario, Problem, Project-Based Learning
Collaborative Learning
Digital Storytelling
Game-based Learning
Learner-Centered, and Self-Directed Learning
Learning Communities
Lifelong, informal, and Nontraditional Learning
On-demand and Just-in-Time Learning
Participatory Learning and Media
Personalized Learning Environments
Simulations for Learning

Topic 4 Content Development Tools

Authoring Tools
Electronic Publishing Tools for E-Learning
Electronic Survey Tools

Topic 5 Virtual and Distance Education

Blended Learning
Collaborative Learning
E-learning/E-training
Flexible Learning
Innovative Online Learning and Educational Programming
Mobile and Ubiquitous Learning
Online Learning Environments

Topic 6 Evaluation and Quality Improvement Advances

Course, Program, Project, and Other Forms of Evaluation
E-learning Benchmarks and Standards
Evaluating for Quality Improvement
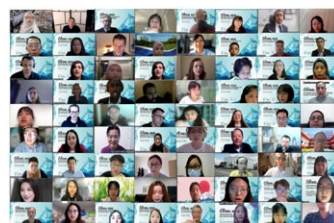Learner Analytics
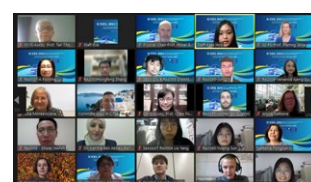Performance Measurements

For more topics, please visit: http://iceel.org/cfp.html

CONFERENCE HISTORY

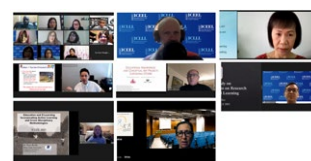▼ **ICEEL 2023 (Tokyo, Japan)** ▼

▼ **ICEEL 2022 (Online)** ▼   ▼ **ICEEL 2021 (Online)** ▼

▼ **ICEEL 2020 (Online)** ▼

▼ **ICEEL 2019 (Barcelona, Spain)** ▼

▼ **ICEEL 2018 (Bali, Indonesia)** ▼

CONFERENCE PROCEEDINGS

Accepted papers after registration will then be published by ICEEL 2024 Conference Proceedings, ensuring their inclusion in the Online Digital Library. Additionally, these papers will be indexed by prestigious databases such as Ei Compendex and Scopus.

Paper Template Downloading: http://iceel.org/acm_template.docx
Submission Methods (choose one from below):
1. Electronic Submission System: http://confsys.iconf.org/submission/iceel2024
2. Conference e-mail: iceel@academic.net

IMPORTANT DATES

Submission Deadline	Notification Deadline	Registration Deadline
August 10, 2024	September 10, 2024	October 10, 2024

CONTACT US

Conference Secretary: Ms. Doris Feng   Email: iceel@academic.net   Tel: +86-17323120754

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