

The 7th International Conference on E-Society, E-Education and E-Technology (ESET 2023)

2023 年第七届电子社会、电子教育和电子技术国际会议

The 12th International Conference on Education and Management Innovation (ICEMI 2023)

2023年第十二届教育与管理创新国际会议

Chiayi

October 13-15, 2023

嘉义 | 2023 年 10 月 13 日-15 日

Organized By



CO-ORGANIZED BY 联合主办单位



嘉義市電腦商業同業公會
Chia Yi Computer Association

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NU LIPA



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WELCOME ADDRESS

Welcome to the 7th International Conference on E-Society, E-Education and E-Technology (ESET 2023), and the 12th International Conference on Education and Management Innovation (ICEMI 2023), which will be held in Chiayi from October 13 to October 15, 2023. ESET 2023 and ICEMI 2023 are organized by National Chiayi University, co-organized by Ming Chuan University, Society of Innovative Education and Technology (SIET), Chiayi Computer Association and Tai Chung Computer Association, and technical supported by National University (NU Lipa), Philippines.

The conference will feature two keynote speeches from leading experts in the field, including Prof. Shakil Akhtar, Clayton State University, USA; Prof. Jon Dron, Athabasca University, Canada; Additionally, there will be seven invited speeches from distinguished professional Prof. Gyöngyvér Molnár, University of Szeged, Hungary; Prof. Yutaro Ohashi, Shibaura Institute of Technology, Japan; Assoc. Prof. Teoh Ai Ping, Universiti Sains Malaysia, Malaysia; Assoc. Prof. Anuchai Theeraroungchaisri, Chulalongkorn University, Thailand; Senior Lecturer Dr. Kew Si Na, Universiti Teknologi Malaysia, Malaysia; Lecturer Dr. Nashwa Ismail, University of Durham, UK and Lecturer Dr. Alex W. C. TSE, The University of Hong Kong, China. There will be 4 Parallel Sessions and 1 poster session, providing ample opportunities for attendees to engage with the speakers and each other.

The success of ESET 2023 and ICEMI 2023 would not be possible without the tireless efforts of the organizers. Special thanks go to National Chiayi University for their leadership in bringing this event to life.

The organizing committee's dedication to making this a successful event is greatly appreciated. Their hard work and attention to detail have ensured that the conference runs smoothly and meets the expectations of all participants. In addition, the contributions of the reviewers cannot be overstated. Their expert opinions and suggestions have helped to ensure the quality and relevance of the conference content.

Once again, thank you to all those who have been involved in making this conference a reality. We are confident that these keynote and invited speakers will provide valuable insights and thought-provoking discussions, and we hope that all attendees will have an enjoyable and productive experience and actively contribute to the success of the conference.

ESET 2023 and ICEMI 2023 Conference Committee

ORGANIZING COMMITTEE

Conference Chairs

- Shakil Akhtar, Clayton State University
- Jon Dron, Athabasca University

Conference Program Chairs

- Pedro Ribeiro Mucharreira, University of Lisbon
- Teoh Ai Ping, Universiti Sains Malaysia

Steering Committee Chair

- Dorota Jelonek, Czestochowa University of Technology

Technical Program Chairs

- Gyöngyvér Molnár, University of Szeged
- Harris Wu, Old Dominion University
- Hwang Ha Jin, Sunway University
- Mido Chang, Florida International University
- Hitoshi Sasaki, Takushoku University
- Vincent C. S Lee, Monash University
- Anuchai Theeraroungchaisri, Chulalongkorn University

Paper Chair

- Luisa Maria Arvide Cambra, University of Almeria

Local Committee Chair

- Ting-Sheng Weng, National Chiayi University

Local Committee Members

- Der-Ching Yang, National Chiayi University
- Ru-Fen Yao, National Chiayi University
- Chih-Hung Wu, National Taichung University of Education
- Chien-Kuo Li, Shih Chien University

Promotion Chairs

- Hui-Wen Vivian Tang, Ming Chuan University

Technical Program Committee

- Sylvia Chong, Singapore University of Social Sciences
- Tien Ching Ting, Chaoyang University of Technology
- Chun-Chia Wang, Chang Jung Christian University
- Ming Hsi Tang, Chaoyang University of Technology
- Bernie S. Fabito, National University - Manila
- Tso-Yen Mao, Chaoyang University of Technology
- Duen-Huang Huang, Chaoyang University of Technology
- You-Chie Huang, Chaoyang University of Technology
- Chieh-Lu Li, National Dong Hwa University
- Jeya Amantha, Universiti Sains Malaysia
- Siti Hajar Binti Halili, University of Malaya
- Fedusha Solomiya, StepanivnaLviv Polytechnic National University
- Shih Jung Peng, Zhaoqing University
- Feng Chen, Wenzhou Medical University
- Lu Liang, Beijing Vocational College of Finance and Commerce
- Nasir Abdul Jalil, Sunway University
- Ho-ying Holly Chung, Hang Seng Management College
- Azhari Md Hashim, UiTM Kedah
- Elaine Yong, Sunway University
- Elizaveta Berezina, Sunway University
- Shih-Chang Huang, National Formosa University
- Felicísimo Enriquez Santiago, Suan Sunandha Rajabhat University
- Nuha El-Khalili, University of Petra
- Si Na Kew, Universiti Teknologi Malaysia
- Rogel M. Labanan, National University - Manila
- Yu-Chin Hsiao, Southern Taiwan University of Science and Technology
- Chaoyang Zhang, Jimei University
- Conrong Wang, Jimei University
- Carlito O. Loyola Jr., NU Laguna and National University
- Tsu-Wu Hu, Chaoyang University of Technology
- Lau Bee Theng, Swinburne University of Technology Sarawak

- Mikhail A. Rodionov, Penza State University
- Habibah Ab. Jalil, University Putra Malaysia
- Eric Busia Blancaflor, Mapua University
- Weng-kun Liu, Feng Chia University
- Stamatios Papadakis, The University of Crete
- Tang Ko Wai William, Hong Kong Metropolitan University
- Vimal Kumar, Chaoyang University of Technology
- Hongfeng Zhang, Macao Polytechnic University
- Aryusmar, Bina Nusantara University
- Bernie Soledad Fabito, National University (NU Lipa)
- Ming-Hsi Tang, Chaoyang University of Technology
- Fahad Alturise, Qassim University
- Yohannes Kurniawan, Bina Nusantara University
- Ko-Chiu Wu, National Taiwan University
- Edison M. Esberto, National University
- Rose Ann C. Malaborbor, National University
- Alliana M. Ablan, National University
- TAN Yun Yi, Universiti Sains Malaysia
- NEO Mai, Universiti Sains Malaysia
- Ikhwan Nazri Mohd Asran, Universiti Sains Malaysia
- Ronina Caoili Tayuan, University of Santo Tomas
- Anabelie V. Valdez, Mindanao State University
- Bengi Sonyel, Easter Mediterranean University
- Sandro Serpa, University of the Azores

CONFERENCE VENUE



Sinmin Campus, National Chiayi University

国立嘉义大学新民校区

Address: No.300 Syuefu Rd., Chiayi City 600355, Taiwan

地址：台湾嘉义市学府路300号 600355

Map of Sinmin Campus, National Chiayi University



GUIDELINES OF ONSITE CONFERENCE

Conference Date

- **Oct. 13th, – Oct. 15th, 2023**

Onsite Registration (Conference Materials Collection); Conference Speeches; Parallel Sessions

Meeting Room

- Main Room: **Building B, Room 316 and Room 317**

Oral Presentation

- Each presentation will last for 15 minutes. You will be given 10 minutes to make presentation and 5 minutes to answer questions from the session chair and audience.
- 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.

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.

GUIDELINES OF ONLINE CONFERENCE

Time Zone

- Oct. 13th – Oct.15th—Taipei Standard Time—GMT/UTC+08:00
- Please set up the alarm to remind yourself for the real-time test and presentation.
- **Join the Test Session before the Formal Session**
- Date: **10:00-12:00 | Oct. 13, 2023**
- 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.

ZOOM ID

- Online Session Test (Find the details in the Agenda Overview)
- General Users Download: <https://zoom.us/support/download>
- Zoom Help Center: <https://support.zoom.us>

Equipment & Environment Needed

- A computer with internet connection and camera
- Headphones
- Quiet Location
- Stable internet connection
- Proper lighting and background

Language

- Please make presentation in English. If necessary, it is allowed to restate some key points in Chinese. Please feel free to discuss in English or Chinese during Q&A.

Presentation Recording and Broadcasting

- The photograph(s) or video or audio recording(s) will be taken by the conference organizer. It will be used for conference program purposes. Each presentation will be recorded, if you don't want it, please inform our staff ahead of time.
- Do not record other presenters' presentations nor distribute them to or share with anyone unless the presenter gives written consent or agrees. Failure to do so will be considered a serious academic violation subject to disciplinary/ lawful action.

AGENDA OVERVIEW

Day 1 | Oct. 13, 2023

Time	Activity	Zoom ID/ Venue
10:00-12:00	Zoom Testing (Online Keynote and Invited Speakers, presenters of online sessions)	Online Session 1: Room A: 867 0903 0239 Password: ESET2023
		Online Session 2: Room B: 822 1016 8416 Password: ESET2023
13:00-16:00	Sign-in and Conference Kit Collection	Room 317 Building B

Day 2 | Oct. 14, 2023

Time	Activity		Venue
Chaired By: Prof. Ting-Sheng Weng, National Chiayi University			Room 317 Building B
09:00-09:05	Opening Remarks	Prof. Chien-Kuo Li Shih Chien University	
09:05-09:45	Keynote Speech	Prof. Shakil Akhtar Clayton State University, USA Speech Title: <i>Effective E-Learning in STEM</i>	
09:45-10:25	Keynote Speech (Online) Room ID: 86709030239 Password: ESET2023	Prof. Jon Dron Athabasca University, Canada Speech Title: <i>Artificial Humanity and Human Artificiality</i>	
10:25-10:50	Group Photo & Coffee Break		



10:50-11:20	Invited Speech	Prof. Gyöngyvér Molnár University of Szeged, Hungary Speech Title: <i>Artificial intelligence, Diagnostic Assessment, and Teacher Competencies: The keys to flexible learning and future education</i>	
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11:20-11:50	Invited Speech	Prof. Yutaro Ohashi Shibaura Institute of Technology, Japan Speech Title: <i>“Education of meaning” and “Education of symbols”: how will ICT and AI change the way of education?</i>	
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11:50-13:30	Lunch Time		Room 317 Building B
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13:30-14:00	Invited Speech	Assoc. Prof. Teoh Ai Ping Universiti Sains Malaysia, Malaysia Speech Title: <i>Digital Leadership in Higher Education Institutions: The Roles of Digital Citizenship and Innovation</i>	Room 317 Building B
14:00-14:30	Invited Speech (Online) Room ID: 86709030239 Password: ESET2023	Assoc. Prof. Anuchai Theeraroungchaisri Chulalongkorn University, Thailand Speech Title: <i>National Strategies to Cultivate the Lifelong Learner Utilizing National Digital Learning Platform and Academic Credit Bank System: Case of Thailand</i>	
14:30-15:00	Invited Speech (Online) Room ID: 86709030239 Password: ESET2023	Senior Lecturer Dr. Kew Si Na Universiti Teknologi Malaysia, Malaysia Speech Title: <i>Learning Analytics and Student Engagement in Online Learning</i>	

15:00-15:15	Coffee Break		
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Parallel Sessions		
Venue	Room 316 Building B	Room 317 Building B





<p>15:15-17:15</p>	<p>Session 1 Artificial Intelligence in Education and Digital Education</p> <p>MT1026 MT1113 EM4020 EM4005-A EM4006 MT1002 EM4013</p>	<p>Session 2 E-Commerce and Education Informationization</p> <p>MT1104 MT1035 EM4009 EM4007 MT1114-A EM4002</p>
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Time	Activity	Venue
<p>17:30-19:30</p>	<p>Dinner</p>	<p>38 Chicken Restaurant (38雞餐館)</p>



Day 3 | Oct. 15, 2023

Invited Speeches & Online Sessions

ZOOM INFO	Room A: 867 0903 0239 Password: ESET2023
09:00-09:30	<p>Invited Speech Lecturer Dr. Nashwa Ismail University of Liverpool, UK Speech Title: <i>Transformative Teaching: Navigating New Norms After COVID-19</i></p>
09:30-10:00	<p>Invited Speech Lecturer Dr. Alex W. C. TSE The University of Hong Kong, China Speech Title: <i>Teacher Assessment Literacy Frameworks: Implications of Teacher Professional Development and Improving Student Learning</i></p>

Online Sessions

ZOOM INFO	Online Session 1 Room A: 867 0903 0239 Password: ESET2023	Online Session 2 Room B: 822 1016 8416 Password: ESET2023
10:00-11:45	<p>Online Session 1 Innovations in Education Technology MT1031 MT1112-A MT1011 MT1042 MT1025 EM4016-A</p>	<p>Online Session 2 Enhancing Education in the Digital Age MT1015 MT1023-A MT1045 MT1005 EM4012-A EM4024-A MT1034</p>

KEYNOTE SPEAKER

Taipai Time

09:05-09:45
2023.10.14

Meeting Room

Room 317, Building B



Prof. Shakil Akhtar

Clayton State University, USA

Speech Title: Effective E-Learning in STEM

BIO

Dr. Shakil Akhtar is currently Professor of IT and Computer Science at Clayton State University. Before this he was the IT Department head from July 2007 to December 2008. He was a Professor in the College of Information Technology at UAE University from 2002 to 2007 (Interim Dean 2002-03). During 2000 to 2002, he was a Performance and Simulation Engineer at Lucent Technologies in Naperville, Illinois, where he was responsible for performance analysis and simulation of telecommunications equipment including third generation mobile systems. His prior work experience includes Computer Science/Engineering Departments at Central Michigan University, University of Toledo, and King Fahad University of Petroleum and Minerals, Dhahran, Saudi Arabia.

ABSTRACT

According to the US Bureau of Labor Statistics (BLS), the growth in Science, Technology, Engineering and Mathematics (STEM) related job positions from 2021 to 2031 is expected to be around 10.8% compared to the growth of 4.9% in non-STEM related positions. Furthermore, a recent survey conducted by the U.S. Department of Education revealed that only 16% of high school students are interested in STEM careers and perform well in mathematics. Additionally, the study revealed that only 28% of high school freshman are interested in the STEM discipline and want to go on to earn a college degree related to the field after graduation.

Unlike traditional classroom training, STEM education integrates various topics via enhancing problem-solving skills. It teaches students how to frame problems as puzzles, analyze information and form their own conclusions, and fosters their creativity and innovation as they work through STEM-related lessons.

Most of the commercially available learning platforms such as Moodle, Brightspace/D2L, or Canvas provide the E-Learning requirements. However, the task of content development to tailor classroom teaching remains with the educator. Younger learners tend to learn faster with visual lessons. The demand lies on the educators to develop and use the contents. Although there are efforts to develop contents, the demand exceeds far more than the available contents. This keynote address will address various development efforts in the STEM related areas and will highlight the needs for development in many other areas.

KEYNOTE SPEAKER

Taipei Time

09:45-10:25
2023.10.14

Meeting Room

Room A: 867 0903 0239
Password: ESET2023



Prof. Jon Dron

Athabasca University, Canada

Speech Title: Artificial Humanity and Human Artificiality

BIO

Dr. Jon Dron is a full professor in the School of Computing and Information Systems and member of the Technology Enhanced Knowledge Research Institute (TEKRI) at Athabasca University, Canada. Until 2007 he was a principal lecturer at the University of Brighton, UK, where he remains an Honorary Faculty Fellow working with the Centre for Learning and Teaching.

Straddling the technology/education divide, his research interests broadly centre around social and structural aspects of learning technologies, with a particular emphasis on discovering, designing and employing methods and technologies to enable learners to help one another to learn.

He is the author of the book *Control & Constraint in E-Learning: Choosing When to Choose*. He has been a keynote speaker at many international workshops and conferences, is author of scores of articles in journals, books and conference proceedings, several of which have received top paper awards at international conferences. His most recently published book, co-written with Terry Anderson, is *Teaching Crowds: Learning & Social Media*. His next book, *How Education Works: Teaching, Technology, and Technique* is under review.

ABSTRACT

We are participants in, not just users of technologies. Sometimes we participate as orchestrators (for instance, when choosing words that we write) and sometimes as part of the orchestration (for instance, when spelling those words correctly). Usually, we play both roles. When we automate aspects of technologies in which we are just parts of the orchestration, it frees us up to be able to orchestrate more, to do creative and problem-solving tasks, while our tools perform the hard, mechanical tasks better, more consistently, and faster than we could ourselves. Collectively and individually, we therefore become smarter. Generative AIs are the first of our technologies to successfully automate those soft, open-ended, creative cognitive tasks. If we lack sufficient time and/or knowledge to do what they do ourselves, they are like tireless, endlessly flexible personal assistants, expanding what we can do alone. If we cannot draw, or draw up a rental agreement, say, an AI will do it for us, so we may get on with other things. Teachers are therefore scrambling to use AIs to assist in their teaching as fast as students use AIs to assist with their assessments.

INVITED SPEAKER

Taipei Time

10:50-11:20
2023.10.14

Meeting Room

Room 317 Building B



Prof. Gyöngyvér Molnár

University of Szeged, Hungary

Speech Title: Digital Leadership in Higher Education Institutions: The Roles of Digital Citizenship and Innovation

BIO

Gyöngyvér Molnár is a professor of education and the director of the Institute of Education and the head of the Doctoral School of Education as well as the head of the MTA-SZTE Digital Learning Technologies Research Group at the University of Szeged, Hungary. She earned her PhD in 2004. In 2010, she habilitated in the area of ICT in education. Then, in 2017, she was awarded a Doctor of Sciences (DSc) degree with a thesis entitled 'Technology-based testing in education: Assessing improvement in problem-solving ability'. Her main areas of interest include: technology-based assessment, improving cognitive skills, studying the quality of school learning, and the potential for using ICT in education – all of which are aimed at improving the quality of learning. She heads eDia, an online diagnostic testing system used in numerous countries. She serves on the editorial boards of numerous domestic and international journals. In 2007, she was presented with the Academy Youth Award, in the same year, she was named an Innovative Teacher at the Innovative Teacher Forum in Paris, in 2014, she was selected for the U.S. Department of State International Visitor Leadership Program, in 2016, she won the Apáczai Csere János Prize for her outstanding scholarly work in support of educational practice, in 2020 she received the Innovation Award and in 2022 the Researcher of the Year Award at the University of Szeged. She has also published widely both domestically and internationally: over 375 papers and studies in all. The number of independent citations of her work exceed 1700, and she has a Hirsch Index of 25. She is married and a mother of three.

ABSTRACT

As the world evolves, so does our understanding of effective education. Every time a new technology emerges, it provides an opportunity to reconsider the purpose of education, align it with various needs and critically review our methods and tools, thus essentially reshaping our educational system. Traditionally, schools typically teach the same content to all students at the same time at the same age; however, age does not determine skills and abilities. That is, the same content cannot match the readiness and needs of all students. Technology and the results in the field of learning sciences can help to address this issue and personalise education and boost the effectiveness of learning and teaching. As a result of this development,

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efforts to have prioritized flexible learning and smart education over the “fitting for all” approach, low-stakes diagnostic assessment over high-stakes summative testing and teacher competencies over frontal teaching methods. AI-based diagnostic assessment has the potential to transform traditional assessment by processing a large amount of data and providing learners with personalized feedback, thereby enhancing the efficacy of the learning process and improving teaching quality through a re-examination of assessment activities. However, without authentic, reliable and valid data, any assessment- and data-based improvement would be doomed to failure. Using artificial intelligence in education is not merely a technological or infrastructural matter; it is first and foremost a pedagogical and methodological challenge. Teachers need to be equipped with the necessary methodological skills so that they can refine assessment activities to improve student engagement and motivation.

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Taipei Time

11:20-11:50
2023.10.14

Meeting Room

Room 317 Building B



Assoc. Prof. Yutaro Ohashi

Shibaura Institute of Technology, Japan

Speech Title: “Education of meaning” and “Education of symbols”: how will ICT and AI change the way of education?

BIO

Yutaro Ohashi graduated from the Graduate School of Media and Governance at Keio University. Later, he was awarded the Research Fellowship for Young Scientists (PD) and worked for Japan Society for the Promotion of Science and served as a visiting scholar at the University of Helsinki. He currently holds professorship in the Department of Information and Communications Engineering, Faculty of Engineering, Shibaura Institute of Technology. Throughout his career, Yutaro Ohashi has been actively involved in English and information media education. He is particularly interested in learning environments designed by learners, and he has received numerous awards for his work in non-traditional learning environments (e.g., zoos, aquariums, and architectural schools for children). His wide-ranging interests span from pedagogical aspects of the information society to information and game design and how education continues to evolve in an advanced information society. Recently, he has authored several papers addressing the evaluation of creative learning processes in university education, with an emphasis on engineering education. These research accomplishments have earned him recognition and awards, such as the encouragement and research presentation awards from the Japanese Society for Engineering Education.

ABSTRACT

The COVID-19 pandemic has accelerated the expansion of ICT in education worldwide. AI-supported learning through smartphone applications is becoming increasingly common in schools and at home. Moreover, programming and computing education is being integrated into the curricula for younger age groups as compulsory or elective subjects in many countries. Thus, ICT and AI are making their way into educational settings at an unprecedented rate. These technologies offer significant benefits, including supporting remote learning, facilitating communication, enhancing learning efficiency, visualizing learning histories, and promoting personalized learning experiences.

However, are we fully aware of the potential drawbacks that these technologies may introduce? One such drawback is that technology might serve as a distraction rather than an inspiration for learning. Another concern is that children’s underdeveloped reading skills might become less apparent in AI-driven educational environments. Recent research has revealed that many children struggle to comprehend textbook-level

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language, and because AI-based practice questions often rely on multiple-choice formats, students are assumed to understand the question if their reflexive answer is correct, but it is difficult to see how much they actually understand. Furthermore, search-based learning can create illusion that there is always a definitive answer to a question, even when the learning process is intended to be exploratory. AI lacks the human capacity to understand the meaning, raising the question of whether “education of meaning” is possible with AI or whether AI-driven education w

INVITED SPEAKER

Taipei Time

13:30-14:00
2023.10.14

Meeting Room

Room 317 Building B



Assoc. Prof. Teoh Ai Ping

Universiti Sains Malaysia, Malaysia

Speech Title: Digital Leadership in Higher Education Institutions: The Roles of Digital Citizenship and Innovation

BIO

Ts. Dr. Teoh Ai Ping is the Doctor of Business Administration Programme Manager and an Associate Professor in the Graduate School of Business, Universiti Sains Malaysia. Dr. Teoh carries the qualifications of Doctor of Business Administration, Master of Science (Information Technology) and Bachelor of Accountancy (Hons.) and has a total of 22 years of industry and academic experience to date. Before embarking on a career in education, she worked in multinational corporations and consulting firms in Enterprise Resources Planning Systems and Enterprise Risk Management. She has published research articles, books, open-distance learning courses and conference proceedings. She has contributed as a visiting lecturer and invited speaker to universities in China, Taiwan, Hong Kong, South Korea and Indonesia. She is a Certified Risk and Compliance Management Professional and a Professional Technologist (Cyber Security Technologies). She possesses a Certification in Training and conducts consultancy and training for corporate clients. Her areas of specialization include Enterprise Systems, Digital Leadership, Cyber Security, Online Education and Enterprise Risk Management. She is a member of professional bodies such as Institute of Electrical and Electronics Engineers, Association for Computing Machinery, Malaysian Institute of Accountants, Malaysian Board of Technologists, and Institute of Internal Auditors Malaysia.

ABSTRACT

In today's digital age, higher education institutions are challenged with technological developments that demand a fundamental change in leadership strategies. The swift integration of technology into pillars of academia (such as teaching and learning, research, and administration) requires leaders who can navigate this landscape competently. Digital leadership goes beyond technical expertise in crafting a digital culture that fosters innovation and agility in responding to the changing needs of students, faculty, the industry and community at large. Grounded by an integrated view of leadership and innovation theories while addressing gaps in the current literature, this study aims to examine key determinants of digital leadership in the context of education organizations. Empirical data obtained from questionnaires survey was analyzed using SmartPLS 4 to test the hypotheses. Results indicate that digital citizenship and innovation have positive significant impact on digital leadership in Malaysian higher education institutions. Findings from this study contributes to the body of knowledge in the field of management innovation. Practically, this study highlighted the crucial roles of digital citizenship and innovation in developing digital leadership that drives education institutions effectually through the digital era.

INVITED SPEAKER

Taipei Time 14:00-14:30 | 2023.10.14

ZOOM ID

Room A: 867 0903 0239

Password: ESET2023



Assoc. Prof. Anuchai Theeraroungchaisri

Chulalongkorn University, Thailand

Speech Title: National Strategies to Cultivate the Lifelong Learner Utilizing National Digital Learning Platform and Academic Credit Bank System: Case of Thailand

BIO

Dr. Anuchai Theeraroungchaisri is an Associate Professor in the Department of Social and Administrative Pharmacy at the Faculty of Pharmaceutical Sciences, Chulalongkorn University. Additionally, he serves as the Deputy Director of Thailand Cyber University at the Office of Higher Education Commission, Ministry of Education. Moreover, he holds the position of Deputy Director at the College of Pharmacy Administration of Thailand. He got a bachelor's degree in Pharmaceutical Sciences and pursued further education at Chulalongkorn University, where he earned a master's degree in Computer Sciences and a Ph.D. in Educational and Communication Technology. With his role as the deputy director of the Thailand Cyber University Project, he has overseen several significant initiatives, such as Thai MOOC (Thailand Massive Open Online Courses), The Higher Education Credit Bank System, TCU-Globe (Interoperability among the learning object repository network, enabling search through a single query), e-Learning Professional Development (the pioneering fully online training certificate program). In 2022, he was recognized as the "Most Valuable Person in Educational Technology 2022" by the Thai Association of Education and Communication Technology, as announced during the 35th Annual Conference of Thailand Educational and Communication Technology. Furthermore, in 2019 he received the "Outstanding Pharmacist in Pharmacy Education 2019" award from The Pharmacy Council of Thailand. His research interests encompass a wide range of topics, including MOOC Policy, Academic credit bank and credit transfer, Learning Design, Online Pedagogy, e-Portfolio, Technology-Enhanced Learning, Learning analytics, and Health Informatics.

ABSTRACT

In the current era, defined by rapid technological advancements and societal changes, lifelong learning has become indispensable. Lifelong learning represents a persistent, self-motivated pursuit of knowledge and skills across various modalities, encompassing formal, non-formal, and informal methods. The constant challenges introduced by emerging innovations require individuals to not just adapt, but to continuously refresh their knowledge to remain relevant in their respective professions. Given this backdrop, the importance of national strategies that promote a culture of ongoing learning cannot be overstated. This presentation explores Thailand's comprehensive strategy to encourage lifelong learning, emphasizing its use of a national digital learning platform, known as Thai MOOCs, and mechanisms like academic credit banks and credit

INVITED SPEAKER

transfer systems. Additionally, Thailand is cementing strategic partnerships with higher education institutions and a diverse range of public and private organizations. This approach is designed to build a resilient, adaptable learning ecosystem, emphasizing short, modular, outcome-based MOOCs. These MOOCs allow learners to accumulate and store learning outcomes in academic credit banks, facilitating easy credit transfers and enabling continuous higher education. Ultimately, this ecosystem seeks to broaden access to varied educational resources and flexible learning pathways, ensuring that individuals are equipped to meet the ever-evolving demands of today's world.

INVITED SPEAKER

Taipei Time 14:30-15:00 | 2023.10.14

ZOOM ID

Room A: 867 0903 0239
Password: ESET2023



Senior Lecturer Kew Si Na

Universiti Teknologi Malaysia, Malaysia

Speech Title: Learning Analytics and Student Engagement in Online Learning

BIO

Dr. Kew Si Na is a senior lecturer at Language Academy, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, and doing her postdoctoral program at NIE, Nanyang Technological University, Singapore. She was the former coordinator of the Ph.D. and Master Full Research TESL Programme, FSSH, UTM. Her research interests are educational technology, online teaching and learning, learning analytics (LA), teaching English as a second language (TESL), technology-enhanced language learning (TELL), computer-assisted language learning (CALL), etc. Besides that, she actively involves in research and publication. She is joining the Technology and Language Education (TLE) research group. She is also currently one of the members of the Young Scientist Network Academy of Sciences Malaysia (YSN-ASM) and the Chair of the Science Leadership Working Group, and a member of the Golden Key Honor International Society. She is also an editor of the Innovative Teaching and Learning Journal and a reviewer for different journals. She has published several articles in peer-reviewed journals and received different awards in exhibitions and competitions, the best presenters, the chancellor award, and the indexed journal publication award. She was also the National Winner of Generation Impact Fellowship 2020. Her existing research grants focus on learning analytics in online learning.

ABSTRACT

Learning analytics is useful in the education field, as it helps teachers gain a better understanding of the student's learning progress and performance from data extraction and analysis. In particular, different stakeholders such as researchers, educators, and practitioners have increasingly concentrated on the issue of student engagement in online learning. Hence, in order to better understand learning analytics and student engagement in online learning, this study has reviewed relevant articles to shed light on the various types of student engagement, the objectives, and the effects of using learning analytics in online learning.

INVITED SPEAKER

Taipei Time 09:00-9:30 | 2023.10.15

ZOOM ID Room A: 867 0903 0239
Password: ESET2023



Lecturer Dr. Nashwa Ismail

University of Liverpool, UK

Speech Title: Transformative Teaching: Navigating New Norms After COVID-19

BIO

Dr. Ismail has MSc and a PhD in Digital Education from the University of Southampton, and she is a Fellow (FHEA) in Advance HE. Her current role is as a lecturer in the Centre for Professional Development (CEDS) at the University of Liverpool, where she serves as a digital advisor across the university. In research, she has taken on various roles in Technology-Enhanced Learning (TEL)-related projects abroad, mainly Continuing Professional Development (CPD) and Games-Based Learning (GBL). Research projects include countries such as Indonesia, Kenya, Malaysia, the Middle East (Egypt, Saudi Arabia), Myanmar, Thailand, and the USA. In Kenya, she worked with Health Professionals (HPs) to utilize low-technology communication methods in rural areas. In Thailand, she was involved in the development of digital games to integrate technology into the sex education curriculum. Enterprise, she took part in developing and commercializing Child Witness Interview Simulation (CWIS) across police forces in the UK. Furthermore, she is a qualitative researcher and teaches qualitative research methods including Systematic Reviews and the phenomenological approaches and their applications using Qualitative Data Analysis Software (QDAS) such as NVivo and Atlas.ti. Additionally, she has a parallel technical curriculum as a Microsoft Certified Trainer (MCT), Microsoft Certified Educator (MCE), and is a qualified Training Assessor in Assessment and Quality Assurance (TAQA).

ABSTRACT

TBA

INVITED SPEAKER

Taipei Time 09:30-10:00 | 2023.10.15

ZOOM ID

Room A: 867 0903 0239

Password: ESET2023



Lecturer Dr. Alex W. C. TSE

The University of Hong Kong, China

Speech Title: Teacher Assessment Literacy Frameworks: Implications of Teacher Professional Development and Improving Student Learning

BIO

Dr. Alex W. C. TSE is currently a Lecturer at Teacher Education and Learning Leadership, Faculty of Education, The University of Hong Kong, mainly responsible for teaching, research and projects of STEM education, information technology in education, critical thinking, assessment for learning, inquiry-based learning assessment and small class teaching etc. He has been serving as a project member of PISA 2025 (Learning in the Digital World) and a member of programme committee for Master of Science in Information Technology in Education. Dr. Tse is a reviewer of manuscripts in various academic journals. He also has been acting as a programme committee chair/member/reviewer/invited speakers in more than 30 academic conferences in IT in Education or/and STEM education, serving as (permanent) Council Member (previously SecretaryGeneral) of the Chinese Society for Inquiry Learning since 2009. He has published more than 40 items, including book chapters, journal papers, research reports and peer-reviewed conference papers.

ABSTRACT

Assessment literacy originally refers to a basic understanding of educational assessment and related skills to apply such knowledge to various measures of student achievement. Aligning with emergent needs of education nowadays (e.g. assessment for learning becomes more prevalent), the scope and importance of assessment literacy for teachers have been evolving recently. To equip teachers with up-to-date knowledge and skills of assessment literacy, policymakers of education, educators and school leaders are steering various related teacher professional development activities. In this invited speech, various recently developed frameworks of teacher assessment literacy are discussed, especially in terms of their implications of teacher professional development and improving student learning, providing guiding principles for planning and designing related teacher professional development activities in order to fill the existing knowledge gaps of teachers about assessment literacy.

Parallel Session 1

Session Topic: Artificial Intelligence in Education and Digital Education

Taipai Time 15:15-17:00 | 2023.10.14

Meeting Room Building B Room 316

Chair: Prof. Gyöngyvér Molnár, University of Szeged, Hungary

Time Table

Time	Paper ID	Presenter	Affiliation
15:15-15:30	MT1026	Hsieh Yi-Min	National Taipei University of Technology
15:30-15:45	MT1113	Shakil Akhtar	Clayton State Universit, USA
15:45-16:00	EM4020	Michael H. Wang	University of Windsor, Canada
16:00-16:15	EM4005-A	Chris B K Tan Low Kerk Chek	Institute of Technical Education, Singapore
16:15-16:30	EM4006	Seuk Yen Phoong	Universiti Pendidikan Sultan Idris, Malaysia
16:30-16:45	MT1002	Bernie Soledad Fabito	National University, Philippines
16:45-17:00	EM4013	Yu-Hui Lin	Huanggang Normal University, China

Paper Details

Paper ID	Title & Authors
MT1026	Identification Assessment of Applying Artificial Intelligence Image Generation Techniques in University Computer Graphics Courses Hsieh Yi-Min
MT1113	E-Learning Methods and Tools for Effective Teaching in Networking and Cybersecurity Courses Shakil Akhtar
EM4020	Assessing Students Amidst the Challenge of ChatGPT Michael H. Wang and Meihua Lee

EM4005-A	<p>Application of Robotic Process Automation (RPA) Tools for Optimizing Exam Processes in Technical and Vocational Education Institutions – A Singapore Perspective</p> <p>Karen K L Loh, Kerk Chek Low and Chris B K Tan</p>
EM4006	<p>Development and Usability of Games in Learning Mathematics</p> <p>Seuk Yen Phoong and Nurul Fashihah Yaakub</p>
MT1002	<p>Who are More Satisfied with Online Learning: Students who have prior Exposure to Face-to-Face Learning or Students who had none?</p> <p>Bernie Soledad Fabito</p>
EM4013	<p>Exploring the Learning Effectiveness of Dialogue-based College Chinese Teaching Plans</p> <p>Yu-Hui Lin</p>

Parallel Session 2

Session Topic: E-Commerce and Education Informationization

Taipei Time 15:15-16:45 | 2023.10.14

Meeting Room Building B Room 317

Chair: Assoc. Prof. Teoh Ai Ping, Universiti Sains Malaysia, Malaysia

Time Table

Time	Paper ID	Presenter	Affiliation
15:15-15:30	MT1104	Yi-Ling Lee	Chaoyang University of Technology
15:30-15:45	MT1035	Yun Yi Tan	Universiti Sains Malaysia, Malaysia
15:45-16:00	EM4009	Seuk Wai PHOONG	Universiti Malaya, Malaysia
16:00-16:15	EM4007	Fahad Alturise	Qassim University, Saudi Arabia
16:15-16:30	EM4002	Ronina Caoili Tayuan	University of Santo Tomas, Philippines
16:30-16:45	MT1114-A	Ai Ping Teoh	Universiti Sains Malaysia, Malaysia

Paper Details

Paper ID	Title & Authors
MT1104	Perish or Prosper? The Challenges and Opportunities for Rural Micro and Small Enterprises in the COVID-19 Pandemic Crisis -the Role of E-commerce Yi-Ling Lee, Kuan-Chuan Tao and Huan-Sen Liao
MT1035	Breaking Barriers: Designing Digital Inclusion and Digital Literacy Learning Programs for Senior Citizens Yun Yi Tan, Mai Neo and Ikhwan Nazri Mohd Asran
EM4009	Impact of Website Stimuli on Online Impulse Buying: A Quantitative Analysis Seuk Wai Phoong and Guat Seng Hoo

EM4007	ICT Strategies in Saudi Universities: Problems and Solutions for Effective Use Fahad Alturise
EM4002	Examining Patient Telehealth Adopter Categories and their Perceived Attribute Values during the COVID-19 Pandemic RONINA CAOILI TAYUAN
MT1114-A	Establishing the Validity and Reliability of Digital Leadership Questionnaires (DLQ) Measurements Ai Ping Teoh, Tze Yin Khaw, Siti Nabiha Abdul Khalid and Sukumar Letchmunan

Poster Session

Taipei Time 14:00-15:00 | 2023.10.14

Time Table

Paper ID	Presenter	Affiliation
MT1102-A	Sou Kuboichi	Shibaura Institute of Technology, Japan
MT1008-A	Tomoya Sano	Takushoku University, Japan
MT1029-A	Der-Ching Yang	National Chiayi University
EM4017	Hsiao-Ming Chang	Putian University, China
MT1103-A	Hiroki Watanabe	Shibaura Institute of Technology, Japan

Paper Details

Paper ID	Title & Authors
MT1102-A	Development of an artificial intelligence that detects body motion using a neural network without a camera Sou Kuboichi and Yutaro Ohashi
MT1008-A	Development of an Evaluation Tool for Programming Education through the Clone Coding Tomoya Sano and Hitoshi Sasaki
MT1029-A	Investigating the suggestions of integrating math picture books into mathematics teaching from the perspective of practice and research Der-Ching Yang
EM4017	A Study of University Students' Purchasing Decision Behaviors for Counterfeit Sport Shoes Hsiao-Ming Chang
MT1103-A	Developing a Typing Game that Promotes User Engagement and Verification of Its Effectiveness Hiroki Watanabe, Yutaro Ohashi

Online Session 1

Session Topic: Innovations in Education Technology

Taipei Time 10:00-11:30 | 2023.10.15

Meeting Room

Room A: 867 0903 0239
Password: ESET2023

Chair: Prof. Yuan Chun You, National Sun Yat Sen University

Time Table

Time	Paper ID	Presenter	Affiliation
10:00-10:15	MT1031	Edison M. Esberto	National University, Philippines
10:15-10:30	MT1112-A	Kazuya TAKASE	Kagoshima University, Japan
10:30-10:45	MT1011	Yuan Chun You	National Sun Yat Sen University
10:45-11:00	MT1042	Arwa Bamaga	King Abdulaziz University, University of Strathclyde, Saudi Arabia
11:00-11:15	MT1025	Yohannes Kurniawan	Bina Nusantara University, Indonesia
11:15-11:30	EM4016-A	Aaisha Abdul Rahim Al Balushi	University of Technology and Applied Sciences, Oman

Paper Details

Paper ID	Title & Authors
MT1031	Development and Evaluation of AppSys: An Online Appointment System Edison Esberto, Rose Ann Caparas Malaborbor, Alliana Miranda Ablan
MT1112-A	Factors Influencing the Willingness of Faculty Students of Education to Learn and Ideate AI-based Education Kazuya TAKASE, Kenya MOMOHARA, Ai KAMIKUBO, Satoshi ONO
MT1011	Toward an Integrated Narrative System Architecture for Interdisciplinary Learning in AI-based Virtual Education System; Yuan Chun You Yuan Chun You

MT1042	<p>Explaining instructional factors affecting m-learning using the moderator of social media: An extension of the IS and TAM models</p> <p>Arwa Bamaga and Bassam Zafer, Sotirios Terzis</p>
MT1025	<p>The Usability Testing of Website with Automated Tools (A Case Study at School of Information)</p> <p>Yohannes Kurniawan</p>
EM4016-A	<p>Re-Thinking Learning Objectives in Higher Education in the Chatbot Era: How will chatbots predictably change the rule of the game in writing courses?</p> <p>Aaisha Abdul Rahim Al Balushi</p>

Online Session 2

Session Topic: Enhancing Education in the Digital Age

Taipai Time 10:00-11:45 | 2023.10.15

Meeting Room

Room B: 822 1016 8416
Password: ESET2023

Chair: Assoc. Prof. Anuchai Theeraroungchaisri, Chulalongkorn University

Time Table

Time	Paper ID	Presenter	Affiliation
10:00-10:15	MT1015	Ting Lyu	Shanghai Normal University Tianhua College, China
10:15-10:30	MT1023-A	Soon Wai Fong	Chinese Cultural University
10:30-10:45	MT1045	Thi Minh Phuong Le	Hue University of Education, Vietnam
10:45-11:00	MT1005	Cuizhi Yin	Changzhou College of Information Technology, China
11:00-11:15	EM4012-A	Amal Saleh Al Muqarshi	UTAS, Oman
11:15-11:30	EM4024-A	Siyuan Liu	Beijing Normal university, China
11:30-11:45	MT1034	Shang Wang	Beijing Polytechnic, China

Paper Details

Paper ID	Title & Authors
MT1015	Collaborative Learning and Self-regulation: The Mediating Role of Self-efficacy Ting Lyu
MT1023-A	A Study on the Factors Affecting the Use of Mobile Payments in Malaysia Soon Wai Fong
MT1045	Enhancing Physics Education with Collaborative Learning through Computerised Experiments Minh Phuong Le and Van Giao Le

MT1005	<p>Analysis on the Coupling and Coordination of Regional Digital Economy and Innovation Ability under the New Development Pattern</p> <p>Cuizhi Yin</p>
EM4012-A	<p>The implications of adopting English as a medium of instruction for the establishment of intellectual capital in the Omani higher education</p> <p>Amal Saleh Al Muqarshi, Sharifa Said Al Adawi and Sara Mohammed Al Bahlani</p>
EM4024-A	<p>The Influence of Paternalistic Leadership on the Turnover Intention of Introduced Teachers</p> <p>Siyuan Liu and Qing Zhang</p>
MT1034	<p>Development and Application of E-education Resources: Integrating PBL and FET to Improve the Teaching Quality of Mechanics Classroom</p> <p>Shang Wang and Xuelei Wang</p>

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.