香港教育大學
The Education University of Hong Kong

Artificial Intelligence and Digital Competency Education Centre
人工智能及數碼能力教育中心

Co-organiser:

MetaACES 2025

The 3rd International Conference on Metaverse and AI Companions in Education and Society

Programme Booklet

18 - 20 June 2025

Supporting Organisations:

Education Bureau
The Government of the Hong Kong Special Administrative Region of the People's Republic of China

iTLE

香港電腦教育學會
The Hong Kong Association for Computer Education

MetaACES 2025

Pogramme Booklet of the 3rd International Conference on Metaverse and Artificial Companions in Education and Society

18-20 June 2025

Hong Kong

Organized by

The Education University of Hong Kong

Co-organized by

Southern University of Science and Technology

Publication of The Education University of Hong Kong

10 Lo Ping Road, Tai Po, New Territories, Hong Kong SAR

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i. Preface

International Conference on Metaverse and Artificial Companions in Education and Society (MetaACES) is one of the Asia-Pacific Society for Computers in Education (APSCE) Theme-based International Conference Series. MetaACES 2025 is the third international conference, organized by The Education University of Hong Kong (EdUHK) and co-organized by Southern University of Science and Technology (SUSTech).

Metaverse and AI companions in education and society cover a wide variety of research topics. They include companionship of human and virtual entities involving applications in hardware and software forms using AI techniques. AI techniques can be in the form of multimodal processing and analytics in languages, visions, speeches, and other modalities of interaction. We call for submissions from researchers doing research in these hot topic areas. We are particularly interested in research that uses deep learning methods to support interactions between humans and AI companions in a variety of real-world educational and societal applications. These topics also include assistive robotics in addition to formal and informal learning, training, workforce, and other forms of cognitive and emotional support.

MetaACES 2025 is held on 18-20 June 2025. Days 1 and 2 of the conference are held at EdUHK's Tai Po Campus, while Day 3 is held at SUSTech's Campus in Shenzhen. The conference this year includes keynote speeches, a teacher forum and paper presentations.

Conference Theme

MetaACES 2025 focuses on the themes related to education and society. The main themes of MetaACES 2025 include but are not limited to the following (in alphabetical order):

Track 1: AI and Artificial Companions in Education

- Artificial Companion in Education
- Artificial Intelligence (AI)
- Automated Feedback
- Behaviour and/or Interaction Modeling, Detection and Visualization
- Big Data Analyzed and Processed by Computers
- Chatbot
- Computational Models of Knowledge and Expertise
- Computer Supported Discussion Analysis and Assessment
- Educational Robots and Toys
- Enhancing Grading, Scoring and Feedback
- Game Analytics
- Intelligent Agents
- Intelligent Tutors and Mentors
- Learning Companion Robots (Robotic Learning Companions)
- Learning Analytics in Educational Games
- Learning Companions
- Natural Language Processing supported Tools, Systems, Applications, Mobile Apps, and Chatbots
- Roles of Artificial Companions in Metaverse
- Role Playing Games for Learning
- Security and Privacy Issues
- Sentiment Analysis
- Simulation and Training (Skill, Competence, Vocational Learning)
- Speech Recognition and Synthesis
- Stealth Assessment
- Unstructured and Semi-structured Data for Computer to Read and Learn

Track 2: Metaverse in Education

- Assessment in Games and Virtual Worlds
- Authentic Environments and Worlds
- Avatars or Player Characters for Learning
- Educational Applications of Metaverses
- Internet of Things (IoT), Internet of Everything (IoE), and/or Sensors
- Metaverse in Education
- Non-Player Characters for Learning
- Virtual and Augmented Learning Environments
- Virtual Characters in Learning and Life
- Virtual Companions in Learning and Life
- VR, AR and Simulation Technology

Track 3: Social Issues

- Artificial Companion in Society
- Bridging Informal and Formal Learning Outcome
- Emotion (Affective State) Modeling, Recognition and Detection
- Emotive Agents
- Human Computer Interaction (HCI)
- Human Robot Interaction (HRI)
- Languages, Thinking Skills, Meta-cognitive Skills, Cognitive Skills, and STE(A)M
- Metaverse in Society
- Motivational and Affective Factors on Learning with Technology
- Personal Learning Environments (PLE)
- Social Network Analysis (SNA)
- User Experience (UX) Evaluation
- Virtual Animal Learning Companions

Teacher Forum

Paper Submission

The conference received a total of 26 submissions (11 full papers, 4 short papers and 11 poster papers) by 62 authors from 6 countries/regions (see Table 1).

Table 1: Distribution of Accepted Papers for MetaACES 2025

Country / Region	No. of Authors	Country / Region	No. of Authors
Hong Kong SAR	24	**Croatia**	5
China	16	**New Zealand**	1
Taiwan	15	**Poland**	1
		Total	**62**

The International Programme Committee (IPC) is formed by 55 Members and 5 Co-chairs worldwide. Each paper with author identification anonymous was reviewed by at least three IPC Members. Related sub-theme Chairs then conducted meta-reviews and made recommendation on the acceptance of papers based on IPC Members' reviews. With the comprehensive review process, 23 accepted papers are presented (9 full papers, 4 short papers and 10 poster papers) (see Table 2) at the conference.

Table 2: Paper Presented at MetaACES 2025

Track	Full Paper	Short Paper	Poster Paper	Total
- Track 1: AI and Artificial Companions in Education	3	3	2	8
- Track 2: Metaverse in Education	5	0	1	6
- Track 3: Social Issues	1	1	0	2
- Teacher Forum	0	0	7	7
Total	**9**	**4**	**10**	**23**

Conference Programme

The conference comprises keynote speeches by internationally renowned scholars; a teacher forum, as well as academic and poster paper presentations.

(i) Keynote Speeches

There are three Keynote Speeches at MetaACES2025:

1. "A New Framework for Human-Technology Collaborative Cognition and Creation in the GenAI Era"
   by Prof. Zhiting ZHU (East China Normal University, China)

2. "AI-Driven Immersive Learning: The Future of Metaverse & Education"
   by Dr. Yung-Hui LI (Hon Hai Research Institute, Taiwan)

3. "Co-Creating AI Literacy to Empower Future Generations"
   by Dr. Linda MANNILA (University of Helsinki, Finland)

(ii) Academic and Poster Paper Presentations

There are 7 sessions of academic and poster paper presentations with 16 papers (9 full papers, 4 short papers and 3 poster papers) in the conference. Worldwide scholars present and exchange the latest research ideas and findings, which highlight the importance and pathways of metaverse and artificial companions in education and society sectors.

(iii) Teacher Forum

There are 2 sessions of teacher paper presentations with 7 papers in the conference. K-12 teachers share best practices and key challenges in implementing metaverse and artificial intelligence education in various countries/regions.

On behalf of the Conference Organizing Committee, we would like to express our gratitude towards all speakers as well as paper presenters for their contribution to the success of MetaACES 2025.

We sincerely hope everyone enjoys and gets inspired from MetaACES 2025.

With Best Wishes,

Prof. Siu Cheung KONG
The Education University of Hong Kong, Hong Kong SAR
Conference Chair of MetaACES 2025

Prof. Yu-Ju LAN
National Taiwan Normal University, Taiwan
Program Chair of MetaACES 2025

Prof. Jianhua ZHAO
Southern University of Science and Technology, China
Program Co-Chair of MetaACES 2025

Prof. Yanjie SONG
The Education University of Hong Kong, Hong Kong SAR
Track Chair of MetaACES 2025

Prof. Tanja MITROVIC
University of Canterbury, New Zealand
Track Chair of MetaACES2025

ii. Conference Organization

Conference Chair

Siu Cheung KONG	The Education University of Hong Kong, Hong Kong SAR

Program Chair

Yu-Ju LAN	National Taiwan Normal University, Taiwan

Program Co-Chair

Jianhua ZHAO	Southern University of Science and Technology, China

Track Chairs

Yanjie SONG	The Education University of Hong Kong, Hong Kong SAR
Tanja MITROVIC	University of Canterbury, New Zealand

Senior Program Committee Members *(Surnames in alphabetical order)*

Ching Sing CHAI	Chinese University of Hong Kong, Hong Kong SAR
Maiga CHANG	Athabasca University, Canada
Gwo-Dong CHEN	National Central University, Taiwan
Cristina CONATI	University of British Columbia, Canada
Claude FRASSON	University of Montreal, Canada
Ronghuai HUANG	Beijing Normal University, China
Gwo-Jen HWANG	National Taiwan University of Science and Technology, Taiwan
Lewis JOHNSON	Alelo, United States
KINSHUK	University of North Texas, United States
Noboru MATSUDA	North Carolina State University, United States
Shengquan YU	Beijing Normal University, China

Program Committee Members *(Surnames in alphabetical order)*

Kaushal kumar BHAGAT	Indian Institute of Technology Kharagpur, India
Linda BRADLEY	The University of Gothenburg, Sweden
Chia-Kai CHANG	National Central University, Taiwan

Ching-Yi CHANG	Taipei Medical University, Taiwan
Rong-Chi CHANG	Taiwan Police College, Taiwan
Chi Yuan CHEN	National Taiwan Ocean University, Taiwan
Chiu-Jung CHEN	National Chiayi University, Taiwan
I-Chun CHEN	Chinese Culture University, Taiwan
Yi-Jing CHEN	National Chin-Yi University of Technology, Taiwan
Pei-Yu CHENG	Tamkang University, Taiwan
Fu-Ling CHUNG	Tamkang University, Taiwan
Xun GE	University of North Texas, United States
Chung-Hao HUANG	Chung Yuan Christian University, Taiwan
Tai-Yi HUANG	University of North Texas, United States
Hui-Chun HUNG	National Central University, Taiwan
Regina KAPLAN-RAKOWSKI	University of North Texas, United States
Chiu-Lin LAI	National Taipei University of Education, Taiwan
Victor LAW	University of New Mexico, United States
Sangmin LEE	Kyung Hee University, Korea
Hao-Chiang Koong LIN	National University of Tainan, Taiwan
Vivien LIN	National Changhua University of Education, Taiwan
Pei-Lin LIU	National Chiayi University, Taiwan
Boning LYU	Xiamen University, China
Zhongling PI	Shaanxi Normal University, China
Grace QI	Massey University, New Zealand
Katrin SAKS	University of Tartu, Estonia
Rustam SHADIEV	Zhejiang University, China
Kai-Yu TANG	National Chung Hsing University, Taiwan
Chia-En TENG	Tunghai University, Taiwan
Judy C. R. TSENG	Chung Hua University, Taiwan
Sheng-Shiang TSENG	National Taipei University of Business, Taiwan
Yun-Fang TU	National Taiwan University of Science and Technology, Taiwan
Airong WANG	Xi'an Jiaotong-Liverpool University, China
Li-Jen WANG	National Central University, Taiwan

Yaling WANG	National Taiwan Normal University, Taiwan
Wei WEI	Macao Polytechnic University, Macao
Jiun-Yu WU	Southern Methodist University, United States
Junjie Gavin WU	Macao Polytechnic University, Macao
Sheng-Yi WU	National Tsing Hua University, Taiwan
Wen-Chi Vivian WU	Asia University, Taiwan
Fu Yu YANG	Chang Gung University of Science and Technology, Taiwan
Hui Chin YEH	National Yunlin University of Science and Technology, Taiwan
Xuesong ZHAI	Zhejiang University, China
Shu ZHAO	Shaanxi Normal University, China

Local Organizing Committee Secretariat

Chair

Prof. Siu Cheung KONG	The Education University of Hong Kong, Hong Kong SAR

Member

Ho Fung Peter LAM	The Education University of Hong Kong, Hong Kong SAR
Mei Ki Vera CHAN	The Education University of Hong Kong, Hong Kong SAR
Yiling Elaine CHEN	The Education University of Hong Kong, Hong Kong SAR
Wan Yee TING	The Education University of Hong Kong, Hong Kong SAR
Luwei Vicky YE	The Education University of Hong Kong, Hong Kong SAR

iii. Programme Overview

Tentative Programme Rundown of MetaACES 2025 (as of 12 June 2025)

Time	Day 1: 18 June 2025 (Wed) Location: EdUHK, Hong Kong SAR	Day 2: 19 June 2025 (Thu) Location: EdUHK, Hong Kong SAR	Day 3: 20 June 2025 (Fri) Location: SUSTech, Shenzhen	
09:00 – 09:15	Registration		Opening Ceremony *09:00-09:20*	Intelligent Technology Education Equipment Exhibition *09:00 - 1830*
09:15 – 09:30			Keynote Speech 1 *09:20-09:45*	
09:30 – 09:45	Opening Ceremony 09:30-10:00	Keynote Speech 2 of MetaACES 2025 (Dr. Yung-Hui Li) *09:30-10:15*	Keynote Speech 2 *09:45-10:10*	
09:45 – 10:00			Keynote Speech 3 10:10-10:35	
10:00 – 10:15	Break *10:00-10:15*		Break *10:35-10:50*	
10:15 – 10:30	Keynote Speech 1 of CTE-STEM 2025 (Prof. Cynthia Breazeal) *10:15-11:00*	Break *10:15-10:30*	Keynote Speech 4 *10:50-11:15*	
10:30 – 10:45		Invited Speech of CTE-STEM 2025 (Mr. Sok Tha) *10:30-11:15*	Keynote Speech 5 11:15-11:40	
10:45 – 11:00				
11:00 – 11:15	Academic Paper Presentation of MetaACES 2025 Session 1 (English) *11:00-12:30*		Keynote Speech 6 11:40-12:05	
11:15 – 11:30		Academic Paper Presentation of MetaACES 2025 Session 5 (English) *11:15-11:45*		
11:30 – 11:45				
11:45 – 12:00		Academic Paper Presentation of MetaACES 2025 Session 6 (Chinese) *11:45-12:30*	Keynote Speech 7 *12:05-12:30*	
12:00 – 12:15				
12:15 – 12:30				
12:30 – 12:45	Lunch *12:30-13:30*	Lunch *12:30-13:30*	Lunch 12:30-14:00	
12:45 – 13:00				
13:00 – 13:15				
13:15 – 13:30				
13:30 – 13:45	Keynote Speech 1 of MetaACES 2025 (Prof. Zhiting Zhu) *13:30-14:15*	Keynote Speech 3 of CTE-STEM 2025 (Prof. Tanja Mitrovic) *13:30-14:15*		
13:45 – 14:00				
14:00 – 14:15			K12 Forum *14:00-15:40*	Digital Intelligence Technology Frontier Forum *14:00-15:50*
14:15 – 14:30	Break *14:15-14:30*	Break 14:15-14:30		
14:30 – 14:45	Teacher Forum Paper Presentation of MetaACES 2025 Session 2 (English) *14:30-14:45*	Workshop of CTE-STEM 2025 (Prof. Gautam Biswas) *14:30-16:00*		
14:45 – 15:00	Academic Paper Presentation of MetaACES 2025 Session 3 (English) *14:45-16:15*			
15:00 – 15:15		Academic Paper Presentation of MetaACES 2025 Session 7 (English) *14:30-15:30*		
15:15 – 15:30	Teacher Forum Paper Presentation of MetaACES 2025 Session 4 (Chinese) *14:30-16:15*			
15:30 – 15:45		Academic Paper Presentation of MetaACES 2025 Session 9 (Chinese) *15:30-16:00*	Break *15:40-16:00*	Break *15:50-16:10*
15:45 – 16:00		Academic Paper Presentation of MetaACES 2025 Session 8 (Chinese) *14:30-16:00*		
16:00 – 16:15		Keynote Speech 3 of MetaACES 2025 (Dr. Linda Mannila) *16:00-16:45*	K12 Forum *16:00-18:20*	Digital Intelligence Technology Frontier Forum *16:10-17:55*
16:15 –16:30	Keynote Speech 2 of CTE-STEM 2025 (Prof. Gautam Biswas) *16:15-17:00*			
16:30 –16:45				
16:45 – 17:00		Housekeeping Announcement 16:45-17:00		
17:00 - 17:15				
17:15 - 17:30				
17:30 - 17:45				
17:45 - 18:00				
18:00 - 18:30			Closing Ceremony *18:20-18:30*	

***Registered participants are responsible for any costs associated with attending Day 3 programmes at SUSTech, such as transportation, accommodation, visa, and other relevant expenses. The conference will arrange a shuttle service to transport participants from Luohu Port in Shenzhen to SUSTech, with a gathering time of 7:30 AM.**

iv. Programme Schedule

Tentative Programme Schedule of MetaACES 2025 (as of 12 June 2025)

Day 1: 18 June, 2025 (Wednesday), EdUHK, Hong Kong SAR		**Venue**
09:00 | 09:30	**Registration**	Reception
09:30 | 10:00	**Opening Ceremony**	Room 1
10:00 | 10:15	**Break**	Reception
10:15 | 11:00	**Keynote Speech 1 of CTE-STEM 2025** *Transforming Learning and Education in the Era of AI* Speaker: Prof. Cynthia BREAZEAL (Massachusetts Institute of Technology, United States) Moderator: Prof. Siu Cheung KONG (The Education University of Hong Kong, Hong Kong SAR)	Room 1
11:00 | 12:30	**Academic Paper Presentation of MetaACES 2025 Session 1 (English)** Session Chair: Prof. Yanjie SONG (The Education University of Hong Kong, Hong Kong SAR) *Exploring Self-Regulated Learning Through an English Speaking Task in an Immersive Virtual Reality Environment: A Sequential and Cluster Analysis (paper 33)* Lei TAO, Yanjie SONG, Jiachen FU, Kaiyi WU *Investigating the Potential of 6DoF AR Glasses in Educational Metaverse Applications (paper 34)* Yuehan ZHAI, Lijie ZHANG, Shuang JI	Room 1
12:30 | 13:30	**Lunch**	Reception
13:30 | 14:15	**Keynote Speech 1 of MetaACES 2025** *A New Framework for Human-Technology Collaborative Cognition and Creation in the GenAI Era* Speaker: Prof. Zhiting Zhu (East China Normal University, China) Moderator: Prof. Yu-Ju LAN (National Taiwan Normal University, Taiwan)	Room 1
14:15 | 14:30	**Break**	Reception

14:30 | 14:45	**Teacher Forum Paper Presentation of MetaACES 2025 Session 2 (English)** Session Chair: Dr. Yin YANG (The Education University of Hong Kong, Hong Kong SAR) *Harnessing Retrieved Augmented Generation for Data-Driven Learning (paper 31)* Eric Yu Kin CHAN	Room 1
14:45 | 16:15	**Academic Paper Presentation of MetaACES 2025 Session 3 (English)** Session Chair: Prof. Hui-Chun HUNG (National Central University, Taiwan) *ChatGPT Addiction, Self-Efficacy, and Continuous Intention: Differences in Gender, Academic Majors, and Purposes of Use (paper 4)* Pin Hui JIANG, Jon Chao HONG *AI-Driven Educator Persona Generation: An Intelligent Framework for Personalized Online Course Video Production (paper 9)* Jin-huang QUE, Ya-qi KONG, Xiao-rong YU, Xu CHEN *The Impact of Voice-Based Embodied English Chatbot on Learners' English Learning Motivation (paper 13)* Ying-Qi SHIH, Hui-Chun HUNG, Shu-Fen HUANG	Room 1
14:30 | 16:15	**Teacher Forum Paper Presentation of MetaACES 2025 Session 4 (Chinese)** Session Chair: Prof. Yi-Ju WU (University of Taipei, Taiwan) *Fostering Computational Thinking and AI Literacy Through Cross-Disciplinary STEAM Education: A Case Study of the "AI Chameleon" Project for P.6 Students* *結合 AI 技術與跨學科 STEAM 課程培養學生運算思維能力與人工智慧素養：以五年級「人工智慧奇異變色龍」課題為例 (paper 8)* Chi Yan WONG, Wai Lung MUNG, Wai Lam CHU *Practical Experience of Artificial Intelligence + Digital Education in Integrating Learning and Teaching in Primary Schools* *人工智慧+數字教育在小學融入學與教的實踐經驗 (paper 14)* Ka Man WAT, Oi Yuen CHENG, Long Yuen YU, Ching Long NGAN *Using Metaverse Cospace to Design a Virtual Church Tour* *透過 Metaverse Cospace 以虛擬環境創造聖堂導覽 (paper 25)* Ka Yin CHAN *Learning for Good: Exploring Co-Creative Interdisciplinary Learning in the Era of Generative AI* *探索生成式人工智能時代 如何驅動跨學習領域的同創共學 (paper 28)* Ka Ki Spike HO, Suzanne Tse Shan SUEN	Room 3

	Artificial Intelligence Education of Hong Kong Secondary Schools – Cultivating Ethical Values *香港中學的人工智能教育 - 培育倫理價值觀 (paper 29)* Chi Wai Jimmy LAM *Promoting Technological Innovation Education in K-12: Cultivating Artificial Intelligence, Metaverse, and Innovative Thinking* *在 K-12 推動科技創新教育：K-12 人工智能、元宇宙與創新思維培育 (paper 30)* Fu Yuen CHUNG, Po Chi IU	
16:15 | 17:00	**Keynote Speech 2 of CTE-STEM 2025** *AI-Empowered Open-Ended Learning Environments in STEM Domains Application to SPICE: Science Projects Integrating Computing & Engineering* Speaker: Prof. Gautam BISWAS (Vanderbilt University, United States) Moderator: Prof. Siu Cheung KONG (The Education University of Hong Kong, Hong Kong SAR)	Room 1

Day 2: 19 June, 2025 (Thursday), EdUHK, Hong Kong SAR		Venue
09:00 | 09:30	**Registration**	Reception
09:30 | 10:15	**Keynote Speech 2 of MetaACES 2025** *AI-Driven Immersive Learning: The Future of Metaverse & Education* Speaker: Dr. Yung-Hui LI (AI Research Center, Hon Hai Research Institute, Taiwan) Moderators: Prof. Yu-Ju LAN (National Taiwan Normal University, Taiwan)	Room 1
10:15 | 10:30	**Break**	Reception
10:30 | 11:15	**Invited Speech of CTE-STEM 2025** *Transforming Education in Cambodia: Advancing STEM Through Education Technology* Speaker: Mr. Tha SOK (Director of the Digital Transformation Department, MoEYS Cambodia) Moderator: Prof. Siu Cheung KONG (The Education University of Hong Kong, Hong Kong SAR)	Room 1
11:15 | 12:05	**Academic Paper Presentation of MetaACES 2025 Session 5 (English)** Session Chair: Prof. Ting-Chia HSU (National Taiwan Normal University, Taiwan) *Designing Architecture and Application Interfaces for Educational Robotics based on Advanced Hardware Components (paper 17)* Bartol BORAS, Antun DROBNJAK, Lovro JAKIC, Ivan TERZIC, Ivica BOTICKI *University Students' Perceptions of Language Learning in Immersive Learning Environments: An Artefact Analysis Perspective (paper 32)* Yin YANG, Siu Cheung KONG	Room 3
12:05 | 12:30	**Academic Paper Presentation of MetaACES 2025 Session 6 (Chinese)** Session Chair: Prof. Yu-Ju LAN (National Taiwan Normal University, Taiwan) *Challenges and Strategies of ChatGPT in Foreign Language Teaching: A Literature Review Based on Articles Published in the Past Three Years* *ChatGPT 在外语教学中的挑战与应对－一项基于近三年文献的研究 (paper 20)* Wen SHEN, Chunlin LEI, Meimei WANG	Room 3
12:30 | 13:30	**Lunch**	Reception

13:30 | 14:15	**Keynote Speech 3 of CTE-STEM 2025** *The Effectiveness of AI-Based Support for Engagement During Video-Based Learning* Speaker: Prof. Tanja MITROVIC (University of Canterbury, New Zealand) Moderator: Prof. Tak-Wai CHAN (National Central University, Taiwan)	Room 1
14:15 | 14:30	**Break**	Reception
14:30 | 16:00	**Workshop of CTE-STEM 2025** *AI and Data Modeling in Open-Ended STEM Learning Environments* Speaker: Prof. Gautam BISWAS (Vanderbilt University, United States) Moderator: Dr. Daner SUN (The Education University of Hong Kong, Hong Kong)	Room 3
14:30 | 15:30	**Academic Paper Presentation of MetaACES 2025 Session 7 (English)** Session Chair: Prof. Tak-Wai CHAN (National Central University, Taiwan) *The Art of Unlearning: An Exploration of the Affective Privacy Unlearning Model in Online Education (paper 10)* Yaowen KUANG, Junjie Gavin WU, Yiyu WU, Tao WANG *Minecraft Metaverse: Transforming STEAM Education through Interactive, Game-Based Learning for Enhancing Student Engagement and Skill Acquisition (paper 12)* Manpreet SINGH *Developing a Family AI Book Talk Companion: Leveraging AI to Improve Parent-Child Reading Discussion Quality (paper 21)* Yi-Cheng TSAI, Chang-Yen LIAO, Tak-Wai CHAN	Room 2
15:30 | 16:00	**Academic Paper Presentation of MetaACES 2025 Session 9 (Chinese)** Session Chair: Prof. Tak-Wai CHAN (National Central University, Taiwan) *Exploring the Therapeutic Leisure Applications of Virtual Reality for Long-Term Hospitalized Patients with Chronic Mental Illness* *探究虛擬實境於長期住院慢精神疾病患者之治療性休閒活動應用成效 (paper 11)* Li-Yu CHEN, Chia-hui HUNG	Room 2
14:30 | 16:00	**Academic Paper Presentation of MetaACES 2025 Session 8 (Chinese)** Session Chair: Prof. Chia-Hui HUNG (Chung Shan Medical University, Taiwan) *Investigating the Application of Augmented Reality in Enhancing Memory Function in Patients with Schizophrenia* *應用擴增實境於促進思覺失調患者記憶力之成效探討 (paper 7)* Siang-Ruei LI, Chia-Hui HUNG	Room 1

	The Effect of AI-Assisted Technology on Students' Mandarin Speaking Proficiency *AI 科技技術輔助對學生華語口說能力之成效影響 (paper 15)* Feng-Huang LIN, Yu-Ju LAN, Chung-Hao HUANG *AI or Not AI, That Is a Question* *人工智能：使用还是回避？ (paper 19)* Meimei WANG，Chunlin LEI, Wen SHEN *Under the Perspective of Human-AI Co-Education: Construction and Application of the "Tripartite Co-Creation" Classroom Teaching Model* *人机共育视域下"三元共创"课堂教学模式的构建与应用 (paper 22)* Hui-Min ZHANG, Wei LIANG, Xiao YANG	
16:00 | 16:45	**Keynote Speech 3 of MetaACES 2025** *Co-Creating AI Literacy to Empower Future Generations* Speaker: Dr. Linda MANNILA (University of Helsinki, Finland) Moderator: Prof. Ting-Chia HSU (National Taiwan Normal University, Taiwan)	Room 1
16:45 | 17:00	**Housekeeping Announcement**	Room 1

Day 3: 20 June, 2025 (Friday), SUSTech, Shenzhen		Venue
Intelligent Technology Education Equipment Exhibition (智慧科技教育装备展)		
09:00 | 18:30	**Exhibiting Unit (参展单位):** Yizhao Technology (Shenzhen) Co., Ltd. (奕兆科技（深圳）有限公司); MagicStar (Shenzhen) Education Technology Co., Ltd. (麻吉星（深圳）教育科技有限公司); Guangzhou AVA Electronic Technology Co., Ltd. (广州市奥威亚电子科技有限公司); Onion Academy (洋葱学园); Beijing Zhongqing Modern Technology Co., Ltd. (北京中庆现代技术股份有限公司); UBTECH Robotics Corp Ltd. (深圳市优必选科技股份有限公司); iFLYTEK Co., Ltd. (科大讯飞股份有限公司); Topsec Technologies Group, Inc. (天融信科技集团股份有限公司); Shenzhen Wansi Future Innovation Technology Co., Ltd. (深圳市万思未来教育科技有限公司); EEO Empower Education Online. (北京翼鸥教育科技有限公司); SUSTech School of Design (南科大创新创意设计学院); Shenzhen Future 3D Edu Tech Co., Ltd. (深圳未来立体教育科技有限公司) Guangzhou Shirui Electronics Co., Ltd. (广州视睿电子科技有限公司（希沃）); Beijing Volcano Engine Technology Co., Ltd. (北京火山引擎科技有限公司（字节跳动旗下）)	Second Floor of the Conference Center (南科大会议中心二楼)
Plenary (全体会议)		
09:00 | 09:20	**Opening Ceremony** Speaker: Dr. Ling ZHANG (张凌, 学校党委副书记) Prof. Yuehong CHEN (陈跃红, 人文社科学院院长, 讲席教授) Prof. Yurong GUO (郭雨蓉, 未来教育研究中心教授)	Conference Center Concert Hall (南科大会议中心音乐厅)
09:20 | 09:45	**Keynote Speech 1** *“通用智慧同伴假说”与“全球和幸”* Speaker: Prof. Tak-Wai CHAN (National Central University, Taiwan) Moderators: Prof. Jianhua ZHAO (Southern University of Science and Technology, China)	
09:45 | 10:10	**Keynote Speech 2** *AI 赋能智慧教育的创新框架* Speaker: Prof. Zhiting ZHU (East China Normal University, China) Moderators: Prof. Jianhua ZHAO (Southern University of Science and Technology, China)	

10:10 | 10:35	**Keynote Speech 3** *人工智能与规模化个性化学习：机遇与关切* Speaker: Prof. Ronghuai HUANG (Beijing Normal University, China) Moderators: Prof. Jianhua ZHAO (Southern University of Science and Technology, China)	
10:35 | 10:50	**Break**	Reception
10:50 | 11:15	**Keynote Speech 4** *AI 时代教育本质的思考* Speaker: Prof. Qintai HU (Guangdong University of Technology, China) Moderator: Prof. Shaoqing GUO (Northwest Normal University, China)	Conference Center Concert Hall (南科大会议中心音乐厅)
11:15 | 11:40	**Keynote Speech 5** *教育数字化开辟（赋能）的教育新赛道* Speaker: Prof. Shaoqing GUO (Northwest Normal University, China) Moderator: Prof. Shaoqing GUO (Northwest Normal University, China)	
11:40 | 12:05	**Keynote Speech 6** *The Challenges and Solutions of Using Generative Artificial Intelligence in School Education: A Three Dimension Framework of Understanding, Using and Unleashing* Speaker: Prof. Siu Cheung KONG (The Education University of Hong Kong, Hong Kong SAR) Moderator: Prof. Shaoqing GUO (Northwest Normal University, China)	
12:05 | 12:30	**Keynote Speech 7** *Generative AI for Student Agency and Collaborative Knowledge Building* Speaker: Prof. Carol CHAN (The University of Hong Kong, Hong Kong SAR) Moderator: Prof. Shaoqing GUO (Northwest Normal University, China)	
12:30 | 14:00	**Lunch**	
Parallel Session 1: K12 Forum (平行会议一：K12 论坛)		
14:00 | 14:20	**Invited Speech 1** *科学精神与科学素养：《高科技十万个为什么》* Speaker: Prof. Qingsong LIU (Southern University of Science and Technology, China) Moderator: Prof. Pengze WU (South China Normal University, China)	
14:20 |	**Invited Speech 2**	

14:40	*GenAI Competencies for University Teachers: Another Teacher Competency Framework?* Speaker: Prof. Cher Ping LIM (The Education University of Hong Kong, Hong Kong SAR) Moderator: Prof. Pengze WU (South China Normal University, China)	Conference Center Concert Hall (南科大会议中心音乐厅)
14:40 | **15:00**	**Invited Speech 3** *Harnessing AI Agents for Enhanced Research Productivity: From Ideas to Implementation* Speaker: Prof. Xiangen HU (The Hong Kong Polytechnic University, Hong Kong SAR) Moderator: Prof. Pengze WU (South China Normal University, China)	
15:00 | **15:20**	**Invited Speech 4** *在线学习环境下学习倦怠规律分析及干预研究* Speaker: Prof. Changqin HUANG (Zhejiang University, China) Moderator: Prof. Pengze WU (South China Normal University, China)	
15:20 | **15:40**	**Invited Speech 5** *Applying Generative AI in Teaching & Learning: Cases and Reflections* Speaker: Prof. Xiao HU (The University of Arizona, United States) Moderator: Prof. Pengze WU (South China Normal University, China)	
15:40 | **16:00**	**Break**	
16:00 | **16:20**	**Invited Speech 6** *When AI Knows Everything: Educating for Epistemic Insights Beyond Content* Speaker: Dr. Yun DAI (The Chinese University of Hong Kong, Hong Kong SAR) Moderator: Prof. Pengze WU (South China Normal University, China)	
16:20 | **16:40**	**Invited Speech 7** *Empowering Teacher Learning with Technology: A New Era for Teacher Education* Speaker: Dr. Qiaoping ZHANG (The Education University of Hong Kong, Hong Kong SAR) Moderator: Prof. Pengze WU (South China Normal University, China)	
16:40 | **17:00**	**Invited Speech 8** *人机共育新生态的深圳实践* Speaker: Ms. Huimin ZHANG (Shenzhen Educational Information Technology Center) (深圳市教育信息技术中心) Moderator: Prof. Pengze WU (South China Normal University, China)	

17:00 | 17:20	**Invited Speech 9** *从破界融通到生态重建* Speaker: Mr. Jiang LU (Shenzhen Mingde Experimental School) (明德实验学校集团) Moderator: Prof. Pengze WU (South China Normal University, China)	
17:20 | 17:40	**Invited Speech 10** *回到基础：数智时代面向终身学习的育人模式创新实践* Speaker: Ms. Wen HUANG (Guangzhou Tianhe Huijing Experimental School) (广州市天河区汇景实验学校) Moderator: Prof. Pengze WU (South China Normal University, China)	
17:40 | 18:00	**Invited Speech 11** *计算思维视角下图形化编程教学模式的创新与探究* Speaker: Dr. Jun PENG (City University of Macau, Macau) Moderator: Prof. Pengze WU (South China Normal University, China)	
18:00 | 18:20	**Invited Speech 12** *Interactive Synergy: AI in STEM Learning Environments* Speaker: Dr. Daner SUN (The Education University of Hong Kong, Hong Kong SAR) Moderator: Prof. Pengze WU (South China Normal University, China)	
Parallel Session 2: Digital Intelligence Technology Frontier Forum (平行会议二：数智科技前沿论坛)		
14:00 | 14:20	**Invited Speech 1** *具身智慧支持的教育机器人探索：现状与趋势* Speaker: Prof. Jianhua ZHAO (Southern University of Science and Technology, China) Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	
14:20 | 14:35	**Invited Speech 2** *如何通过游戏与人工智能让学习更有趣* Speaker: Mr. Xinhan LIN (Yizhao Technology (Shenzhen) Co., Ltd.) (奕兆科技(深圳)有限公司) Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	
14:35 | 14:50	**Invited Speech 3** *破解课堂黑箱：教学大数据驱动的双 AI 教学范式转型实证* Speaker: Dr. Xuyi WANG (MagicStar (Shenzhen) Education Technology Co., Ltd.) (麻吉星(深圳)教育科技有限公司)	

	Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	
14:50 | 15:05	**Invited Speech 4** *AI 赋能“精学精研”的探索* Speaker: Mr. Xuanjie DU (Guangzhou AVA Electronic Technology Co., Ltd.) (广州市奥威亚电子科技有限公司) Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	
15:05 | 15:20	**Invited Speech 5** *基于 AI 数据的教师数字素养提升：从精准诊断到专业成长的闭环路径* Speaker: Mr. Bo ZHANG (Beijing Zhongqing Modern Technology Co., Ltd.) (北京中庆现代技术股份有限公司) Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	
15:20 | 15:35	**Invited Speech 6** *数智化赋能高校高质量发展——希沃的探索与实践* Speaker: Mr. Hui SHEN (Guangzhou Shirui Electronics Co., Ltd.) (广州视睿电子科技有限公司(希沃)) Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	Conference Center Meeting Hall (南科大会议中心会议厅)
15:35 | 15:50	**Invited Speech 7** *区域化跨学科学习研究* Speaker: Mr. Xiguang ZHANG (Shenzhen Wansi Future Innovation Technology Co., Ltd.) (深圳市万思未来教育科技有限公司) Moderator: Dr. Xueqi FENG (Southern University of Science and Technology, China)	
15:50 | 16:10	**Break**	
16:10 | 16:25	**Invited Speech 8** *洋葱学园 AI 课堂的实践与探索* Speaker: Mr. Haipeng LI (Onion Academy) (洋葱学园) Moderator: Mr. Qingtao CHEN (Southern University of Science and Technology, China)	
16:25 | 16:40	**Invited Speech 9** *AI 赋能教师教育变革的希沃实践* Speaker: Ms. Yali LU (Guangzhou Shirui Electronics Co., Ltd.) (广州视睿电子科技有限公司(希沃))	

	Moderator: Dr. Qingtao CHEN (Southern University of Science and Technology, China)	
16:40 | 16:55	**Invited Speech 10** *AI 时代下具身智能助力教学模式创新与实践探索* Speaker: Mr. Xiaoping WANG (EEO Empower Education Online.) (北京翼鸥教育科技有限公司) Moderator: Dr. Qingtao CHEN (Southern University of Science and Technology, China)	
16:55 | 17:10	**Invited Speech 11** *拥抱变化：从 STEAM 到 AI 教育* Speaker: Mr. Wei XI (UBTECH Robotics Corp Ltd.) (深圳市优必选科技股份有限公司) Moderator: Dr. Qingtao CHEN (Southern University of Science and Technology, China)	
17:10 | 17:25	**Invited Speech 12** *赋能与重塑——大模型驱动教育的变革与实践* Speaker: Mr. Tao ZHOU (iFLYTEK Co., Ltd.) (科大讯飞股份有限公司) Moderator: Dr. Qingtao CHEN (Southern University of Science and Technology, China)	
17:25 | 17:40	**Invited Speech 13** *大模型应用安全防护* Speaker: Mr. Jingyu ZHANG (Topsec Technologies Group, Inc.) (天融信科技集团股份有限公司) Moderator: Dr. Qingtao CHEN (Southern University of Science and Technology, China)	
17:40 | 17:55	**Invited Speech 14** *大模型在教育行业落地案例分享* Speaker: Mr. Yu LI (Beijing Volcano Engine Technology Co., Ltd.) (火山引擎教育行业解决方案(字节跳动)) Moderator: Dr. Qingtao CHEN (Southern University of Science and Technology, China)	
18:20 | 18:30	**Closing Ceremony**	Conference Center Concert Hall (南科大会议中心音乐厅)

v. Keynote Speeches

Keynote Speech (1)

A New Framework for Human-Technology Collaborative Cognition and Creation in the GenAI Era

Date **18 June, 2025 (Wednesday)**

Time **13:30 – 14:15**

Venue **Conference Centre, Block E**

Speaker: Prof. Zhiting ZHU

(East China Normal University, China)

Moderator: Prof. Yu-Ju LAN

(National Taiwan Normal University, Taiwan)

Speech Abstract

In the era of Generative Artificial Intelligence (GenAI), the collaborative cognition and creation between humans and AI are reshaping our world. This report explores a new framework, illustrated through a diagram, showcasing the complementary strengths of humans and AI in collaborative optimization, unique human capabilities, AI enhancements, and joint exploration. Through this dimensional thinking, we will reveal new directions for future educational development, construct a novel framework for wisdom education, and focus on GenAI-empowered convergence education to cultivate new-quality talents suitable for the digital and intelligent era.

Speaker Bio

Zhiting Zhu (祝智庭) is a Lifetime Professor at East China Normal University and a PhD supervisor in Educational Technology. He also serves as the Chief Consultant for the Ministry of Education's E-Learning Technology Standards Committee and is a Special Advisor at the UNESCO International Centre for Higher Education Innovation, among other roles. His research areas include the design of digital education technology systems architecture and technical standards, the theories and cultural transformation of education digitalization, and the theories and practical models of wisdom education.

Keynote Speech (2)

AI-Driven Immersive Learning: The Future of Metaverse & Education

Date **19 June, 2025 (Thursday)**

Time **09:30 – 10:15**

Venue **Conference Centre, Block E**

Speaker: Dr. Yung-Hui, LI

(Hon Hai Research Institute, Taiwan)

Moderator: Prof. Yu-Ju LAN

(National Taiwan Normal University, Taiwan)

Speech Abstract

As artificial intelligence (AI) continues to revolutionize industries, its impact on education is becoming increasingly profound. This keynote explores how Generative AI, Metaverse technologies, and Immersive Learning are converging to reshape the future of education.

We will begin by examining how AI 2.0 and foundation models enable personalized learning experiences, intelligent tutoring systems, and adaptive digital education platforms. We will then explore the role of AR/VR and the Metaverse in creating interactive, immersive learning environments, allowing students to engage with content beyond traditional classrooms.

A key highlight will be the PRO-U-GAT-IT framework, an advanced AI-driven image-to-image translation model that enhances digital content generation. This innovation supports real-time, adaptive, and scalable educational experiences, transforming virtual field trips, hands-on STEM experiments, and collaborative simulations.

Additionally, we will discuss challenges and ethical considerations, including AI-generated biases, computational resource constraints, and the need for regulatory frameworks to ensure responsible AI deployment in education.

By integrating Generative AI, Metaverse, and real-time interactive technologies, we envision a future where education is more engaging, inclusive, and tailored to individual needs. This keynote will provide insights into how AI-driven immersive learning will shape the next generation of digital education and workforce training.

Speaker Bio

Dr. Yung-Hui Li is the founding director of AI Research Center at Hon Hai Research Institute,

Foxconn's core R&D center. He holds degrees from National Taiwan University (B.S., 1995), University of Pennsylvania (M.S., 1998), and Carnegie Mellon University (Ph.D., 2010). Previously a tenured professor at National Central University, Taiwan, he now leads research at Foxconn. His team excels in autonomous driving, winning top ranks in global challenges including Argoverse 1 & 2 Motion Forecasting Competition (CVPR 2023, 2024), Waymo Sim Agents Challenge (CVPR 2024), and securing second place in Waymo Motion Prediction Challenge (CVPR 2024). Dr. Li has received gold and silver medals at international invention exhibitions in Geneva, Pittsburgh (INPEX), and Silicon Valley (SVIIF). His research focuses on Generative AI, Large Language Models, Multimodal Foundation Models, and their applications in Computer Vision, Autonomous Driving, Smart Manufacturing, and Biometrics. He has published over 100 papers in top AI conferences (including CVPR, EMNLP, AAAI) and journals (including IEEE Transactions on Pattern Analysis and Machine Intelligence, Cybernetics, Intelligent Transportation Systems, Intelligent Vehicles, and ACM Computing Surveys).

Keynote Speech (3)

Co-Creating AI Literacy to Empower Future Generations

Date **19 June, 2025 (Thursday)**

Time **16:00 – 16:45**

Venue **Conference Centre, Block E**

Speaker: Dr. Linda MANNILA

(University of Helsinki, Finland)

Moderator: Prof. Ting-Chia HSU

(National Taiwan Normal University, Taiwan)

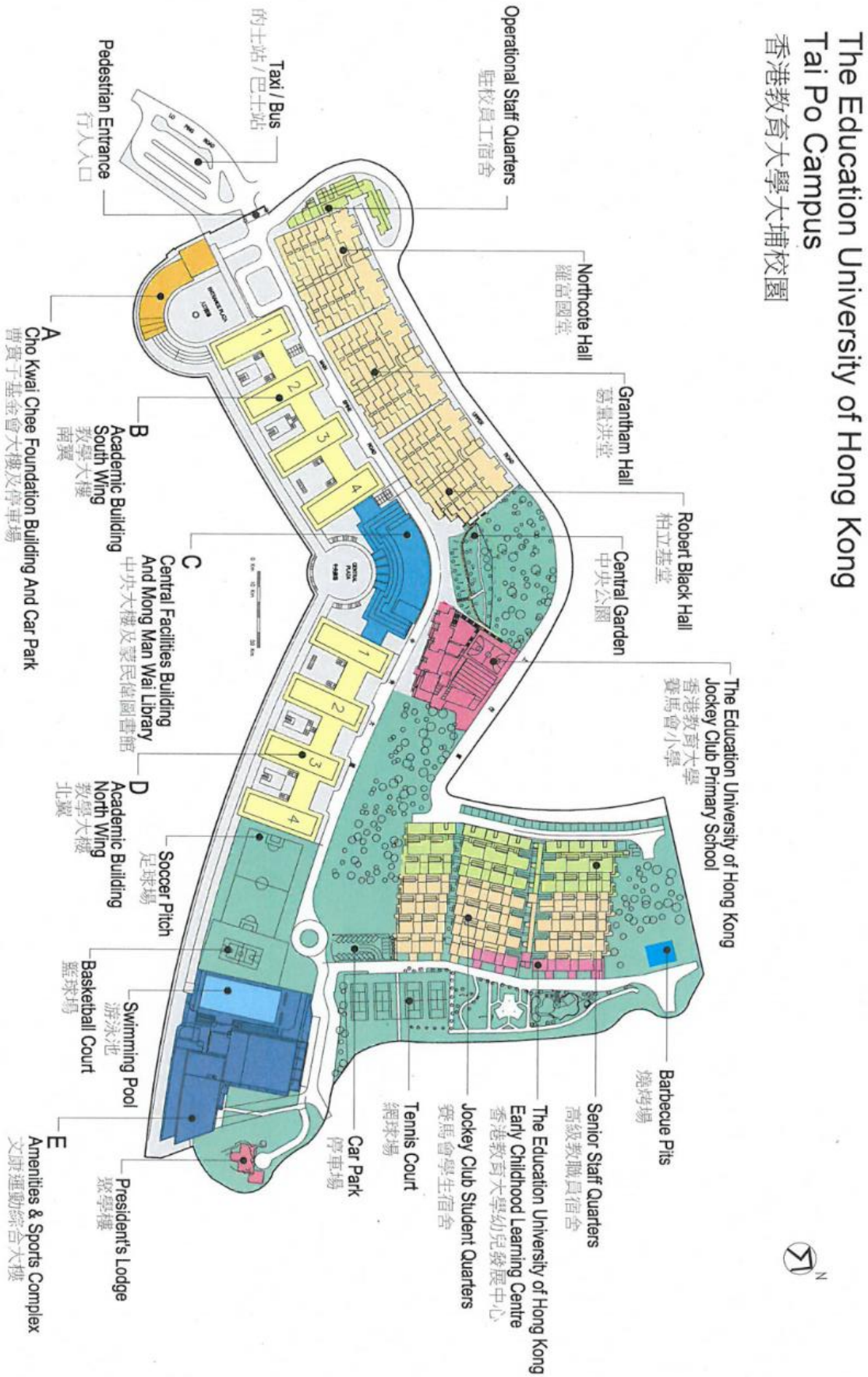
Speech Abstract

Today's youth grow up in an era where AI is both a powerful tool and a pervasive influence in everyday life. While AI presents a multitude of opportunities, it also introduces challenges such as privacy risks, exposure to biased content, and the potential for overreliance on automated decision-making. This keynote explores the need for AI literacy in K-12 education. Building on lessons from computing related curricular reforms and insights from international policy discussions, the presentation outlines a four-stage process for co-creating AI lesson plans with students, teachers, and teacher trainers illustrated through case studies from the Nordic countries. Additionally, it discusses the results from an international, multi-stakeholder on framing AI literacy for K-12 education, highlighting AI literacy as a field that demands both technical understanding and ethical considerations.

Speaker Bio

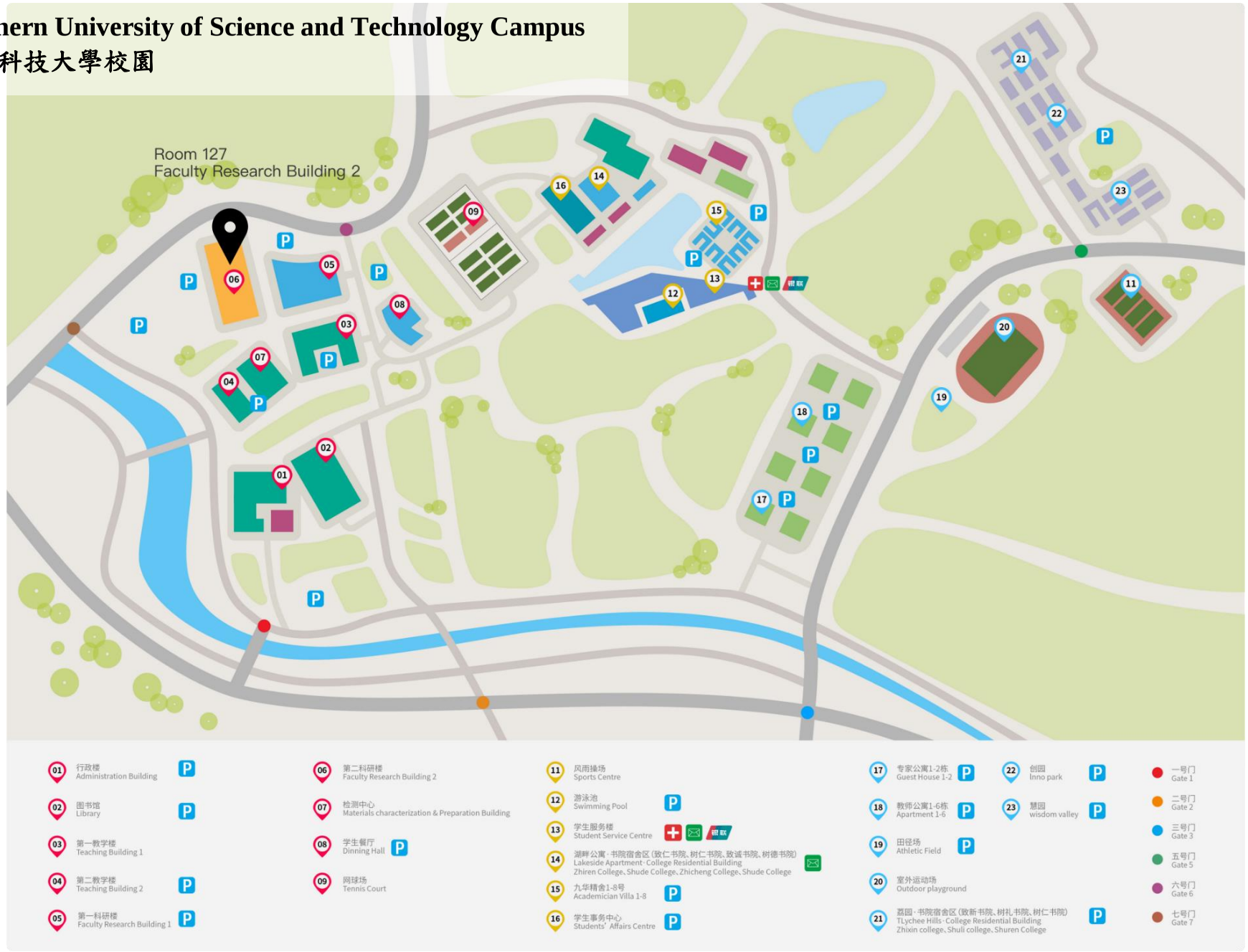
Linda Mannila is an Associate Professor specializing in the societal aspects of AI at the Department of Computer Science, University of Helsinki, Finland. She also holds the position of Visiting Associate Professor in Computer Science Education at Linköping University, Sweden. She has led several cross-curricular research projects related to digital competence, programming and AI at K-12 level. Currently her research explores public perceptions of AI as well as AI in education, with particular focus on AI literacy from a student, teacher, and organizational perspective. She also leads NordicEdAI, a cross-Nordic interdisciplinary network dedicated to addressing questions related to AI in education.

vi. Campus Map



Conference Centre

Southern University of Science and Technology Campus
南方科技大學校園



vii. Transportation

How to get to EdUHK for international visitors?

a. From HK International Airport to EdUHK

Take a taxi to EdUHK direct (pay by cash; about HK$350-HK$400), or

Take Airbus E41 to Tai Po Centre then change to bus 74K or taxi (about HK$60)

b. From Shenzhen to EdUHK

Take MTR train from Lo Wu to Tai Po Market Station (details)

then change to bus 74K or taxi (pay by cash; about HK$60)

c. From Hung Hom MTR Station to EdUHK

Take MTR train to Tai Po Market Station (details)

then change to bus 74K or taxi (pay by cash; about HK$60)

Public Transportation Information

KMB		
	**No. 74K** Bus – Circular (between MTR Tai Po Market Station and Sam Mun Tsai visiting The Education University of Hong Kong)	KMB No. 74K Bus Schedule
	No. 74F Bus - Express Route (between Kwun Tong Ferry and The Education University of Hong Kong)	KMB No. 74F Bus Schedule
	No. 73F Bus - Express Route (between Tsuen Wan Nina Tower and The Education University of Hong Kong)	KMB No. 73F Bus Schedule
	**No. 263C** Bus ~ NEW (between Tuen Mun Station and The Education University of Hong Kong)	KMB No. 263C Bus Schedule
	No. 265S Bus ~ NEW (from Tin Shui Wai Town Centre to The Education University of Hong Kong)	KMB No. 265S Bus Schedule
Green Minibus		
	**No. 26** Service (between Tai Po Campus and Bayshore Towers, Ma On Shan)	Green Minibus No. 26 Service Schedule

How to get to SUSTech (Shenzhen) for international visitors?

a. From Luohu Port (Conference Shuttle Bus is provided)

Take the Conference Shuttle Bus from Luohu Port (羅湖口岸). The meeting time is at 7:30 a.m..

b. From Shenzhen Bao'an International Ariport

Take Metro Line 11 to Qianhaiwan, transfer to Metro Line 5 to Tanglang. (1hour)

c. From Shenzhen North Railway Station

Take Metro Line 5 to Tanglang. (20 minutes)

d. From Futian Railway Station

Take Metro Line 4 to Shenzhen North Railway Station, transfer to Metro Line 5 to Tanglang. (1 hour) (b) Take bus M459 from Gouwu Gongyuan Metro Station to Tanglang Primary School. (1.5 hours)

viii. Enquiry

MetaACES 2025

18 – 20 June, 2025 (Wednesday – Friday)

The Education University of Hong Kong, Hong Kong SAR
Southern University of Science and Technology, Shenzhen

https://www.eduhk.hk/metaaces2025/

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See you at MetaACES 2025!

香港教育大學
The Education University of Hong Kong

Artificial Intelligence and Digital Competency Education Centre
人工智能及數碼能力教育中心

Co-organiser:

MetaACES 2025

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Supporting Organisations:

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The Government of the Hong Kong Special Administrative Region of the People's Republic of China

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