

Symposium on Innovation & Technology 創新科技論壇

Unlocking Possibilities: Harnessing AI for Innovation in Consumer Electronics

結合人工智慧 創造無限可能

Date 日期	: 13 / 10 / 2023 (Friday 星期五)
Time 時間	: 10:30AM – 3:45PM
Venue 地點	: Theatre I, Hong Kong Convention and Exhibition Centre 香港會議展覽中心演講廳 1
Language 語言	: English with Simultaneous Interpretation in Putonghua 英語 (附設普通話即時傳譯服務)
Remarks 備註	: Free admission (Please scan the QR Code to register); CPD available 免費登記 (請掃描二維碼登記) ; 可申請持續進修專業學分



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Time 時間	Tentative Programme Rundown 暫擬程序表
AM SESSION 上午時段	
10:15AM – 10:30AM	Registration 登記
10:30AM – 10:40AM	Welcome Remarks 歡迎辭 By Mr Victor Choi , Chairman, Hong Kong Electronics & Technologies Association 香港電子科技商會 主席 蔡劍誠先生 
	Opening Remarks 開幕辭 By Prof Dong SUN, JP , Secretary for Innovation, Technology and Industry Bureau 創新科技及工業局 局長 孫東教授, JP
	Group Photo 嘉賓合照
10:40AM – 11:00AM	Trend Forecasting – Opportunities & Challenges of AI 科技前瞻 — 人工智能的新機遇和新挑戰 Speaker 演講嘉賓: Mr David Chen , Partner, Technology Consulting, Ernst & Young Advisory Services Limited
11:00AM – 11:15AM	Supercharge Computing Efficiency with AI Chips 利用智能晶片 提升計算效率 Speaker 演講嘉賓: Mr Greg Knopf , Senior Director of Server Customer Engineering, AMD
11:15AM – 11:30AM	6G, Metaverse, and Generative AI: From Convergence to Emergence Speaker 演講嘉賓: Prof Martin Maier , Professor, Institut National de la Recherche Scientifique 

<p>11:30AM – 11:45AM</p>	<p>Topic on Sustainability & Automotive Semiconductors</p> <p>Speaker 演講嘉賓: Ms Ho Wai Wong-Lam, Vice President of Strategy, NXP Semiconductors</p>
<p>11:45AM – 12:30PM</p>	<p>Panel Discussion and Q&A Session 討論及問答環節</p> <p>Moderator 主持: Dr Paulina Chan, Chair of the Regional Board of Directors of UK's Charter Management Institute</p>
<p>12:30PM – 2:30PM</p>	<p>Networking Luncheon 交流午宴</p> <p>Venue 地點: S221 (by Invitation only and hosted by HKETA 由香港電子科技商會宴請)</p>
<p>PM SESSION 下午時段</p>	
<p>2:15PM – 2:30PM</p>	<p>Registration 登記</p>
<p>2:30PM – 2:45PM</p>	<p>Generative AI: Infrastructure & Applications 生成式人工智能：配套與應用情景</p> <p>Speaker 演講嘉賓: Mr Fred Sheu, National Technology Officer, Head of Technology Enablement, Microsoft</p>
<p>2:45PM – 3:00PM</p>	<p>AI for Social Good: A Case Study of Street-level Air Pollution Estimation and Public Health Management 人工智能造福社會：空氣污染估算和健康管理</p> <p>Speaker 演講嘉賓: Prof Victor O.K. Li, Chair Professor of Information Engineering, University of Hong Kong 香港大學訊息工程講座教授 李安國教授</p> <div style="text-align: right;">  香港大學 THE UNIVERSITY OF HONG KONG </div>
<p>3:00PM – 3:15PM</p>	<p>Robotics and AI for Real-world Applications</p> <p>Speaker 演講嘉賓: Prof Kazuhiro Kosuge, Chair Professor of Robotic Systems, The University of Hong Kong</p> <div style="text-align: right;">  香港大學 THE UNIVERSITY OF HONG KONG </div>
<p>3:15PM – 3:30PM</p>	<p>Innovative Full-Color Micro-LED Micro-Display: A revolutionary Technology for AR/XR</p> <p>Speaker 演講嘉賓: Dr Eddie Chong, CEO, Raysolve Technology Company Limited</p>
<p>3:30PM – 3:45PM</p>	<p>Latest Advances in Integrated Circuits for AI Applications</p> <p>Speaker 演講嘉賓: Dr Charles CHEUNG, Senior Data Scientist and Deputy Director, NVIDIA AI Technology Center Hong Kong, NVIDIA</p>

Remarks 備註: The Organisers reserve the right to amend the symposium programme without prior notice. 主辦單位有權更改論壇程序表而不作另行通知。

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CPD Applications 持續進修專業學分申請

- 3 hours of CPD would be obtained for participants who have attended the event on time in both AM & PM sessions. 準時出席論壇上午及下午兩節之觀眾將可獲得 3 小時持續進修專業學分。
- The CPD credits are to be endorsed by the Hong Kong Electronics & Technologies Association (HKETA). Applicants agreed to share the name and email with the HKETA under such practice.
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Prof Martin Maier**Professor, Institut National de la Recherche Scientifique****About the Presentation**

6G networks will bring forth a variety of novel enabling technologies such as integrated sensing and communications for perceptive mobile networks, quantum-enabled wireless networks, blockchainized mobile networks, and AI-native networks with intelligence-endogeneous capabilities. The push from more advanced technological tools becoming available as well as the pull from society's needs imply that there must be several 6G paradigm shifts, e.g., transition from 2D to global 3D connectivity, services beyond communication, and a cyber-physical continuum between the connected physical world of senses, actions, and experiences and its programmable digital representations. Importantly, NSF's view on Next G research is that Next G includes but is not limited to the specific key performance indicator requirements and topics of interest addressed by the different 6G standards development organizations. In fact, according to the Next G Alliance roadmap, there is a unique opportunity to address the interdependencies between technological and human evolution, given that there is a symbiotic relationship between technology and a population's societal and economic needs. As technology shapes human behavior and lifestyles, those needs shape technological evolution.



This talk focuses on the fusion of digital and real worlds. We introduce the concept of the so-called Multiverse as an interesting attempt to help realize the fusion of digital and real worlds. The Multiverse offers eight different types of reality, including but not limited to virtual and augmented reality. A term closely related to the Multiverse is the recently emerging Metaverse. The Metaverse might be viewed as the next step after the Internet, similar to how the mobile Internet expanded and enhanced the early Internet in the 1990s and 2000s. The various adventures that this place has to offer will surround us both socially and visually. The Metaverse will put the user first, allowing every member of our species to delve into new realms of possibilities. A modern, digital renaissance is taking place on the grandest stage we have ever seen, involving billions of connected brains. In the coming decades, a new era of virtual life will bring in our next big milestone as a networked species.

About the Speaker

Martin Maier is a full professor with the Institut National de la Recherche Scientifique (INRS), Montréal, Canada. He was educated at the Technical University of Berlin, Germany, and received MSc and PhD degrees both with distinctions (summa cum laude) in 1998 and 2003, respectively. He was a recipient of the two-year Deutsche Telekom doctoral scholarship from 1999 through 2001. He was a visiting researcher at the University of Southern California (USC), Los Angeles, CA, in 1998 and Arizona State University (ASU), Tempe, AZ, in 2001. In 2003, he was a postdoc fellow at the Massachusetts Institute of Technology (MIT), Cambridge, MA. Before joining INRS, Dr. Maier was a research associate at CTTC, Barcelona, Spain, 2003 through 2005. He was a visiting professor at Stanford University, Stanford, CA, 2006 through 2007. He was a co-recipient of the 2009 IEEE Communications Society Best Tutorial Paper Award. Further, he was a Marie Curie IIF Fellow of the European Commission from 2014 through 2015. In 2017, he received the Friedrich Wilhelm Bessel Research Award from the Alexander von Humboldt (AvH) Foundation in recognition of his accomplishments in research on FiWi-enhanced mobile networks. In 2017, he was named one of the three most promising scientists in the category "Contribution to a better society" of the Marie Skłodowska-Curie Actions (MSCA) 2017 Prize Award of the European Commission. In 2019/2020, he held a UC3M-Banco de Santander Excellence Chair at Universidad Carlos III de Madrid (UC3M), Madrid, Spain.

Prof Victor O.K. Li 李安國教授**Chair Professor of Information Engineering, University of Hong Kong****香港大學訊息工程講座教授****About the Presentation**

Artificial intelligence (AI) is a powerful tool that has shown great success in various applications, such as medical diagnosis, autonomous vehicles, and chatbots. However, it also poses challenges to society, including bias, unemployment, and privacy infringement. As such, our interdisciplinary international team, led by Prof. Victor OK Li and Dr. Jacqueline CK Lam, has been researching AI technologies and their application to pressing societal problems, or AI for Social Good (AlfSG), for the past decade. AlfSG is centered on meeting the needs of society, improving the quality of life, reducing biased decision-making, allowing humans to make ethical decisions, and enhancing the public's ability to comprehend AI-generated results for better decision-making. This talk will demonstrate how AI can be used to estimate and forecast air pollution, to help our citizens utilize street-level air pollution information to make informed decisions that benefit their health. This is important as poor air quality has become an increasingly critical challenge for many metropolitan cities, and has devastating consequences on health and quality of life. Moreover, high spatial resolution air pollution data, coupled with corresponding socioeconomic data, also allow us to determine if there is environmental inequality. Overall, AI has the potential to greatly benefit society, but it must be approached with caution and with a focus on social good. Our research aims to harness the power of AI to address pressing societal challenges and make a positive impact on people's lives.

**About the Speaker**

Victor O.K. Li received SB, SM, EE and ScD degrees in Electrical Engineering and Computer Science from MIT. Prof. Li is Chair Professor of Information Engineering at the Department of Electrical & Electronic Engineering (EEE) at the University of Hong Kong (HKU). He was also Cheng Yu-Tung Professor in Sustainable Development from March 2017 to June 2023. He is the Director of the HKU-Cambridge Clean Energy and Environment Research Platform, the HKU-Cambridge AI to Advance Well-being and Society Research Platform, and the HKU-Cambridge AI for Neuro-disease Research Platform, which are interdisciplinary collaborations with Cambridge University. From April to August 2019, and in June 2023, he was Visiting Professor at the Department of Computer Science and Technology at Cambridge University. He was the Head of EEE, Assoc. Dean (Research) of Engineering and Managing Director of Versitech Ltd., the technology transfer and commercial arm of HKU. He serves on the board of Sunevision Holdings Ltd., listed on the Hong Kong Stock Exchange. He co-founded and serves as Chairman of the Board of award-winning Fano Labs Ltd., an artificial intelligence (AI) company specializing in natural language processing and speech recognition. Previously, he was Professor of Electrical Engineering at the University of Southern California (USC), Los Angeles, California, USA, and Director of the USC Communication Sciences Institute. His research interests include AI for social good, with applications in medicine, and clean energy and environment studies. In Jan 2018, he was awarded a USD 6.4M RGC Theme-based Research Project to develop deep learning techniques for personalized and smart air pollution monitoring and health management. Sought by government, industry, and academic organizations, he has lectured and consulted extensively internationally. He has received numerous awards, including the PRC Ministry of Education Changjiang Chair Professorship at Tsinghua University, the UK Royal Academy of Engineering Senior Visiting Fellowship in Communications, the Croucher Foundation Senior Research Fellowship, and the Order of the Bronze Bauhinia Star, Government of the HKSAR. He is a Fellow of the Hong Kong Academy of Engineering Sciences, the IEEE, and the HKIE.

Prof Kazuhiro Kosuge**Chair Professor of Robotic Systems, The University of Hong Kong****About the Presentation**

Today's AI cannot provide a comprehensive solution for robotics. However, from a robotics perspective, AI is a valuable tool for developing systems to address real-world problems that traditional methods struggle to solve. In this talk, I will show how AI technologies are being used to address real-world challenges. For the Aichi Expo in 2005, we developed a dance partner robot, "PBDR", using conventional machine learning method. Based on this concept, we developed a co-worker robot, "PaDY", for use in the automotive assembly process. Intention estimation was crucial for these collaborative robots. We have developed several applications of AI technologies in manufacturing, such as computer vision for bin picking, grasp planning, robot motion planning, and assembly of industrial parts using visual servoing. The application of AI technologies has made the visual servoing more practical. Recent advances in AI now allow us to handle the manipulation of soft materials. The JC STEM Lab of Robotics for Soft Materials, funded by the Hong Kong Jockey Club Charities Trust, is exploring this new field for future manufacturing applications.

**About the Speaker**

Dr. Kazuhiro Kosuge is Chair Professor of Robotic Systems in the Department of Electrical and Electronic Engineering, and Director of JC STEM Lab of Robotics for Soft Materials at the University of Hong Kong. He also serves as Deputy Managing Director, Center for Transformative Garment Production under the InnoHK initiative of the Hong Kong SAR Government. He received B.S., M.S., and Ph.D. in control engineering from the Tokyo Institute of Technology, in 1978, 1980, and 1988 respectively. He joined Tohoku University as Professor in 1995 and served as Distinguished Professor from 2018 to March 2021. He received the Medal of Honor, Medal with Purple Ribbon, from the Government of Japan in 2018, in the name of the Japanese Emperor. He also received IEEE RAS George Saridis Leadership Award in Robotics and Automation in 2021. He is an IEEE Life Fellow, JSME Fellow, SICE Fellow, RSJ Fellow, JSAE Fellow and a member of the Engineering Academy of Japan. He was the President of the IEEE Robotics and Automation Society from 2010 to 2011, the IEEE Division X Director from 2015 to 2016 and the IEEE Vice President for Technical Activities for 2020.