The Institution of Engineering and Technology

ICT Conference 2020

Enlightening the Innovation Ecosystem

Date : 20 November 2020
Time : 09:30 - 13:00
Format : Webinar
Venue : HKUST Business School Central
Website : http://www.ictconference.hk/

Programme *

Time	Activities	Speakers	Title / Organisation
09:15	Registration & Sign-in		
09:30 -- 11:10	Welcome Address	Dr Tim WOO	Chairman of IET Hong Kong
	Keynote Speech 1: AI and Big Data Applications in the Pandemic and Beyond	Ir Dr the Hon LO Wai Kwok, SBS, MH, JP	Legislative Councilor (Engineering Functional Constituency)
	Keynote Speech 2: "Have You AI'ed Today? A Reality Check" -- The Potentials, Limits and Pitfalls of AI	Mr Charles MOK, JP	Former Legislative Councilor (Information Technology Functional Constituency)
	Speech 1: What Makes “Mission-critical” Mission-critical?	Mr David LUM	Director, Technical Pre-Sales Support, Motorola Solutions Inc.
	Speech 2: Innovation and Digitalization for Smart Building and City Management	Ir Steve CHAN	Senior Electronics Engineer, Electrical & Mechanical Services Department
11:10	Break		
11:15 -- 13:00	Speech 3: Digital Mapping and Automated Feature Extraction Transforming How We Look at Hong Kong's Geology	Mr Jesse TAM	Senior Engineering Geologist, Fugro
	Speech 4: Fano's Story: From AI Research to Enterprise Solutions	Dr Albert LAM	Chief Scientist and Chief Technology Officer, Fano Labs / Adjunct Assistant Professor, Department of Electrical and Electronic Engineering, The University of Hong Kong
	Speech 5: EHR Smart Health	Mr Kenny CHIEN	General Manager & Senior Vice President, Cherrypicks
	Speech 6: AI and Big Data - Leading Towards a Better and Smarter Future	Dr James LEI Zhibin	Senior Director, Artificial Intelligence and Big Data Analytics, ASTRI
	Closing Speech	Ir Alex LAI	Chairman of Organising Committee

* The organiser reserves the rights to change the speaker(s) and/or the programme contents without prior notice.

Welcome Address from Chairman of IET Hong Kong

Dr Tim KT WOO

Chairman,
The Institution of Engineering and Technology
Hong Kong

On behalf of the Institution of Engineering and Technology (IET) Hong Kong, it is my great honor and pleasure to welcome you all to the ICT conference 2020 organized by the Informatics ad Control Technologies Section of IET Hong Kong.

With the rapidly development of technologies, the digital information and application are embedded in our daily life since information age. Driving by a latest industrial revolution 4.0, the demand of the enhancement of ICT industry operations are increasing accordingly.

To address the needs and have a forward looking on the ICT development, the Organising Committee of ICT 2020 has invited speakers from government officials, academy and industry, to share their valuable experiences on digital technologies. I am sure that this conference can serve as a great platform for experts to share ideas in their field based on the theme, Enlightening the Innovation Ecosystem.

This is a challenging year, the COVID-19 pandemic gives us a big impact. This is not only medical issue. This also make a lot of changes in the different sectors, including industries, education, business, and social activities. Under this normal, the ICT with digital technologies contributes much in supporting our daily life activities and business opportunities in the world.

Even this is a difficult time, our committee never stop them in organizing ICT conference 2020. This turns a traditional face-to-face conference into a hyper-mode platform including both the physical and online communication.

I would like to tremendous thank the Organising Committee for their kind efforts and the distinguished guests for their support and participation. Also, I would like to express my special thanks for keynote speakers for their inspiring sharing, and to appreciate the supporting organisations and sponsors for their generous patronage.

Welcome all of you to join ICT conference 2020 and I wish you all will benefit from the conference. I look forward to meeting you in the Conference.

Thank you very much.

Dr Tim KT Woo
Chairman, The Institution of Engineering and Technology Hong Kong

Keynote Speech 1:
AI and Big Data Applications in the Pandemic and Beyond

Ir Dr the Hon LO Wai Kwok, SBS, MH, JP

Legislative Councilor
(Engineering Functional Constituency)

Ir Dr the Hon LO Wai Kwok, SBS, MH, JP, is Member of the Legislative Council of the Hong Kong Special Administrative Region, representing the Engineering Functional Constituency. He is Chairman of the Panel on Development and Deputy Chairman of the Public Works Subcommittee under the Finance Committee of the LegCo.

Dr Lo is very active in the community and has served many government organizations, professional bodies and trade associations. He is currently member of the Housing authority, the Hospital Authority, the West Kowloon Cultural District Authority and the Airport Authority. He is Chairman of the Business and Professionals Alliance for Hong Kong and Founding Chairman of the Hong Kong Green Strategy Alliance. He was President of the Hong Kong Institution of Engineers in the session 2007/08, Past President of the Hong Kong Professionals and Senior Executives Association, and was a Sha Tin District Councilor for many years.

Dr Lo holds an Engineering Doctorate degree of the University of Warwick. He is Honorary Fellow of the Hong Kong University of Science and Technology, Honorary Fellow of the City University of Hong Kong, Industrial Fellow of the University of Warwick, Honorary Fellow of the Hong Kong Vocational Training Council, and Adjunct Professor of both the City University of Hong Kong and the Technological and Higher Education Institute of Hong Kong. He was inducted a member of "The HKIE Hall of Fame" in 2015, the year that marked the 40th anniversary of The Hong Kong Institution of Engineers.

Abstract

AI, big data, cloud computing, etc. are the important technological cornerstones of future city planning and industrial advancement. They have transformed the way we live, play, work and interact with each other, as well as how business and government operate. AI, big data and Cloud are closely linked and provide support for Smart City development. For now, the challenges of coronavirus have accelerated this shift to a digital future. The rapid migration to digital technologies driven by the pandemic will continue into post-pandemic recovery.

Keynote Speech 2:
"Have You AI'ed Today? A Reality Check" – The Potentials, Limits and Pitfalls of AI

Mr Charles MOK, JP

Former Legislative Councilor
(Information Technology
Functional Constituency)

Charles Mok is the former Legislative Councilor representing the Information Technology Functional Constituency in Hong Kong since 2012, and is a member of The Professionals Guild, a legislative caucus of pro-democracy functional constituency legislators. He is currently the Vice Chairman of the Professional Commons, a Hong Kong think tank. He is also the Honorary President of the Hong Kong Information Technology Federation and the Founding Chairman of the Internet Society Hong Kong.

Professionally, Charles has been served the ICT industry for over 30 years, in both multinationals and startups, including co-founding HKNet in 1994, one of the earliest Internet service providers in Hong Kong. He is dedicated in fostering the development of innovation & technology in Hong Kong, covering a wide array of issues including smart city, tech talent development, supports to start-ups, STEM education, open data, regulatory reforms, Internet freedom, and information privacy and security.

Charles graduated from Purdue University in the United States with a bachelor's degree in Computer and Electrical Engineering and a master's degree in Electrical Engineering.

Abstract

The abundance of data, algorithms and machine learning has brought excitement over AI's power to transform everything. Such hype has spurred unprecedented investment and R&D effort at both international and national level. While the world witnesses the advancement of AI-powered applications such as facial recognition, speech recognition etc, has AI delivered the world-altering impact that researchers and analysts have predicted? Charles Mok will share his perspective on the potentials, limits and pitfalls of artificial intelligence, and what it means to technologists navigating an ever-changing social and political landscape.

MISSION-CRITICAL ECOSYSTEM

FLEXIBLE TECHNOLOGY PLATFORMS TO CREATE A SAFER WORLD

www.motorolasolutions.com

MOTOROLA SOLUTIONS

Speech 1:
What Makes “Mission-critical" Mission-critical?

Mr David LUM

Director,
Technical Pre-Sales Support,
Motorola Solutions Inc.
Former Adjunct MBA Business Professor,
Lake Forest Graduate School of Management

David Lum is a Director in Motorola Solutions in the Asia/Pacific region. For more than 37 years, David has worked in the land mobile two-way radio business and has extensive experience in a wide variety of markets and applications that use two-way voice & wireless data radio systems in mission-critical applications. David’s work experience & responsibilities include product development, systems marketing, manufacturing, systems engineering, field engineering, project & program management, sales & engineering training, business development, product marketing, government regulatory affairs, and international operations management. David worked extensively in the US and Asia/Pacific markets, and has done international business for more than 27 years.

Based in Singapore, David continues to travel frequently within the Asia Pacific region to consult on radio systems and its design, speak at technical conferences and seminars, presenting to many senior-level government officials, and educating customers and regulators on technology trends and applications. David contributes to the industry by writing magazine articles and white papers that have been published internationally. David is also currently on the Board of Editorial Advisors for the Radio Resource International industry magazine. One of the more interesting and unique credits in David’s career is being the first Motorolan to enter into the Democratic People’s Republic of Korea (aka North Korea) in 2001.

David has a Bachelor’s of Science degree in Electrical Engineering from the University of Illinois at Urbana-Champaign and a Master’s of Science degree in Management from the Lake Forest Graduate School of Management. Before relocating to Singapore for a 2nd time, David also was an adjunct MBA Business Professor teaching at the Lake Forest Graduate School of Management since 1993, teaching Project Management, Global Business & Cultural Diversity, and Effective Leadership to MBA students who are full-time working executives. David also served for 3½ years as President of the Asian Business Council, a twice award-winning employee-based diversity network inside Motorola. David also started two Toastmasters Clubs, served as President, and achieved the Advanced Communicator Bronze level. David had also contributed his community service time towards the National Association of Asian American Professionals (NAAAP) as a National Senior Advisor, and served on the National Board of Directors. He continues to help all Asian professionals to improve their professional career and leadership abilities through personal growth and leadership development. David was a frequent international speaker, lecturer, and trainer on Asian affairs and leadership development, in addition to two-way radio technology.

David’s hobbies include aviation (where he is a FAA-licensed private pilot), reading, microcomputing, teaching, public speaking (on business, technology, cultural awareness, career management, and leadership), bowling, golf, and movie-watching.

Abstract

Many systems deployed for operation at various government departments, industrial operations, and businesses usually have an expectation for reliable operations. No one wants their systems to fail. For some government or industrial operations, a failure of their system can mean the difference between life & death, or a major disaster that is costly to recover. For some businesses, a failure may mean loss of revenue or a tarnished reputation. So how does an organization decide between a mission-critical system vs. a business-critical system? What actually determines the difference between mission-critical and a business-critical system? What are all of the things that make a mission-critical system to be "mission-critical"? This session will explore this difference and the impact to engineering design and business & operational considerations for projects.

Speech 2:
Innovation and Digitalization for Smart Building and City Management

Ir Steve CHAN

Senior Electronics Engineer,
Electrical & Mechanical Services Department

Ir CHAN Hor-yin, Steve (Senior Engineer / Building Information Modelling) of the Electrical and Mechanical Services Department (EMSD) of The Government of the Hong Kong Special Administrative Region, with his years of engineering experiences, has led his team to self-develop Building Information Modelling (BIM) with Asset Management (AM) platform for enhancing operation and maintenance services since 2014. In 2018, he led the team to build the first of its kind government own Internet of Things (IoT) network elevating BIM-AM to BIM-Facility Management applications via seamless integration of real-time sensor data to achieve “Digital Twin”. He is promoting the use of IoT technologies within government to smartly manage citywide assets and BIM buildings on 3D GIS for better city management in HK driving towards a smart city.

Abstract

Since 2014, EMSD has developed the application of BIM for asset management, namely BIM-AM System. The benefits of BIM in asset management have been well recongised by the trade in recent years. With the emerging Internet of Things (IoT) technologies, EMSD is the pioneer deployed the first of its kind Government Wide IoT Network (GWIN) elevating BIM-AM to BIM-Facility Management for applications such as smart meeting room, smart carpark and smart toilets via seamless integration of real-time sensor data to achieve “Digital Twin”. The GWIN also supports the deployment of Electrical & Mechanical (E&M) equipment monitoring applications and smart city management applications for other government departments. EMSD is working towards the smart management of citywide assets and BIM buildings on 3D GIS for better city management.

Energy for Brighter Tomorrows

CLP 中電

Powering Smarter Cities

Speech 3:
Digital Mapping and Automated Feature Extraction Transforming How We Look at Hong Kong's Geology

Mr Jesse TAM

Senior Engineering Geologist

Fugro

Jesse Tam is a Chartered Geologist with over 12 years of varied experience in site characterisation and geohazard assessment in the Asia-Pacific region, ranging from several years working in the mining sector in Mongolia, to more recent geotechnical site investigations in the tropical rainforests of Indonesia and Papua New Guinea since joining Fugro in 2014. His interests lie in engineering geology and geomorphology, including the integration of geological mapping, aerial and satellite imagery interpretation, ground investigation data, geophysical surveys and laboratory results into 3D geological ground models for the investigation and mitigation of landslides and other geohazards.

Abstract

Rock discontinuity surveys are an essential part of the stability assessment of natural and man-made rock slopes. Traditional methods require engineering geologists to physically access the slope to manually record the orientations of individual rock discontinuities and related characteristics. The time and cost of carrying out this surveying work is often significant, and the locations are frequently difficult to access safely. For some time, Fugro has been combining the use of remote sensing techniques with digital mapping and automated feature extraction systems to overcome many of the time and safety issues on real-world rock slope mapping projects. Advances in photogrammetry, LiDAR scanning, drone technology and computer processing power have enabled development of digital transformation approaches to allow us to extract rock discontinuity data quickly and automatically from imagery acquired at some distance from the site. In this talk, an overview of the process will be presented, together with lessons learned from some case studies and some ideas for further development of the approach.

Speech 4:
Fano's Story: From AI Research to Enterprise Solutions

Dr Albert LAM

Chief Scientist and Chief Technology Officer, Fano Labs
Adjunct Assistant Professor, Department of Electrical and Electronic Engineering, The University of Hong Kong

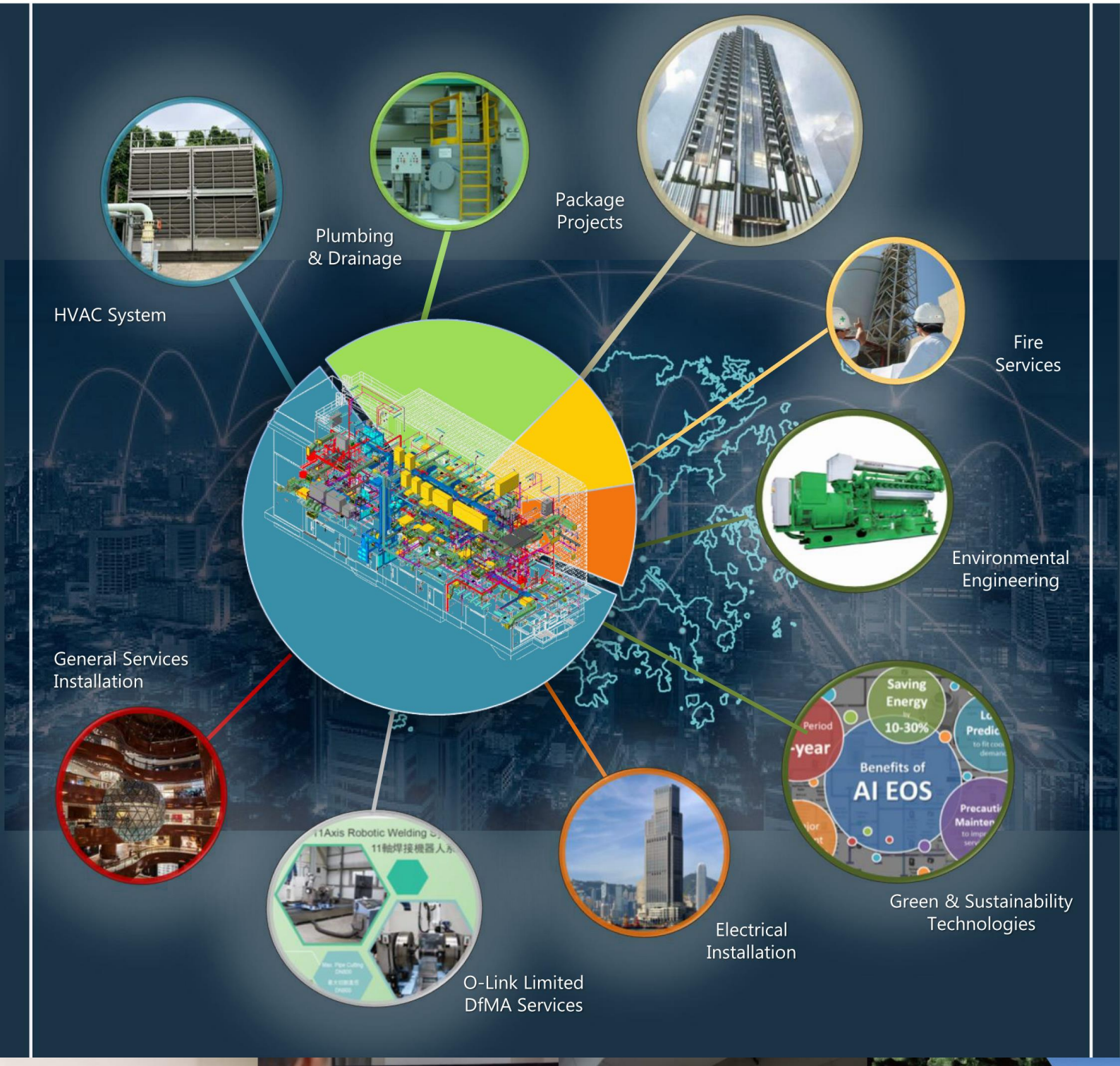
Dr Albert Lam obtained his PhD at the Department of EEE of HKU and was a postdoctoral scholar at the Department of EECS of UC Berkeley. He was a research assistant professor at HKBU-CS and HKU-EEE in 2012-15 and 2015-17, respectively. He is now the Chief Scientist and the CTO at Fano Labs. He also serves as an Adjunct Assistant Professor at HKU-EEE. He is a Senior Member of IEEE and also a Croucher research fellow. He is the founding Chair of the Social Media Subcommittee of the IEEE CIS and has chaired other committees, including Young Professionals Subcommittee, Strategic Planning Subcommittee, etc. His research interests include machine learning, optimization, evolutionary computation, smart grids, and smart cities. He is also an Associate editor of IEEE Transactions on Evolutionary Computation and IEEE Transactions on Intelligent Transportation Systems.

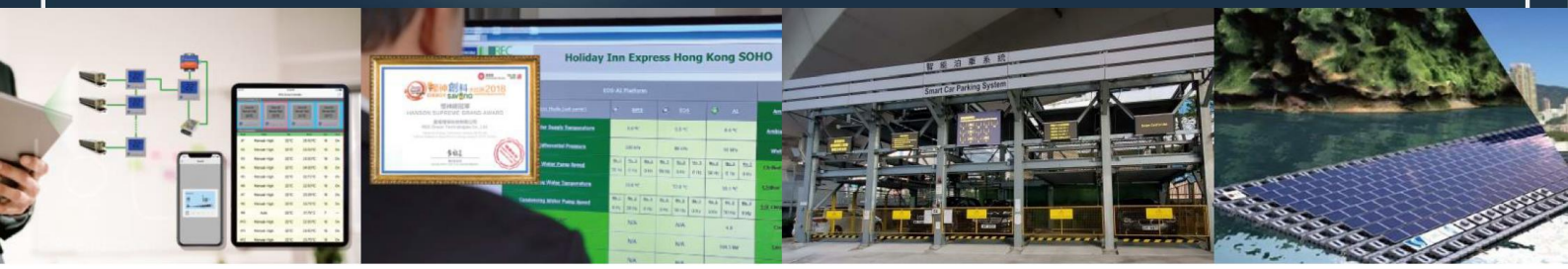
Abstract

It is often that scholars and researchers are on the cutting edge of technical research, but not sure how their outcomes can benefit the society and bring business value. On the other hand, enterprises often have the needs, but not sure what and how technologies can be used to solve their problems. Fano Labs, with their strong R&D competence and BD experience, has been bridging the gap of AI adoption for different industries such as banking, telecom, insurance, and public utilities, with their state-of-the-art NLP and speech technologies. From business-driven requirements to feasibility assessment and productization, this sharing is about how to transform academic machine learning research into practical commercial products for enterprise solutions, and thus foster the development of smart city and keep the IT ecosystem thriving.

盈電工程有限公司
REC Engineering Company Limited

(A wholly-owned subsidiary of Yau Lee Holdings Limited)





Tel 電話: (852) 2619-8888 Fax 傳真: (852) 2481-2870 Email 電郵: info@rec-eng.com Website 網址: www.rec-eng.com

Speech 5:
EHR Smart Health

Mr Kenny CHIEN

General Manager & Senior Vice President, Cherrypicks

Kenny is the General Manager and Senior Vice President of Cherrypicks, a regional leader in smart city, augmented reality, artificial intelligence, eWallet and location intelligence. Cherrypicks' goal is to make cities smarter. With leading UX solutions and disruptive patent-pending products, Cherrypicks has represented Hong Kong and China on many world stages to win over 100 local and international awards. The early entrepreneurial journey of the company was featured as a Harvard business case (#N9-807-106). In 2014, Cherrypicks was strategically acquired by a China-headquartered, HK-listed Internet powerhouse, NetDragon (HKSE:777).

Cherrypicks offers thought-leadership and world-class technology platforms to provide O2O mobile user experiences. Its smart city platforms and micro-location/AR/AI services enable personalized visitor experiences and big data analytics for the retail, tourism, finance and insurance, education, as well as art and culture industries around the world.

Kenny is a veteran of the ICT industry in China with over 20 years of experience in China businesses and a pioneer of ISP service in China. Prior to joining Cherrypicks, Kenny was the Director of Global Business in ESRI China (HK) overseeing business development in China and management of investments in new technologies, including value-added mobile technology in 2D barcode and eHealth-related technologies.

Kenny is an active member and has been highly involved in many ICT associations. He is the Chairman of Hong Kong Software Industry Association, Vice President of the Internet Professional Association, Council member of Smart City Consortium, and a Council member of the Hong Kong General Chamber of Small and Medium Business. Kenny is also the President and co-founder of the eHealth Consortium. In addition to his involvement with ICT associations, Kenny also actively supports social service organizations to give back to the community. He is the Counselor of the Hong Kong United Youth Association and Honorary Treasurer of Fu Hong Society.

Abstract

The seminar will discuss on eHealth and its crucial role in Smart City development. Singapore has taken a proactive approach in driving eHealth Apps for citizens and helped to foster its leadership in Smart City. Emphasis would also be placed on the outlook of how a patient managed health record applications could transform the healthcare management in the community as well as the Health IT ecosystem. The seminar would also cover, from a mobile application developer point of view, what it takes to deliver good user experiences for public services.

Speech 6:
AI and Big Data –
Leading Towards a Better and Smarter Future

Dr James LEI Zhibin

Senior Director,
Artificial Intelligence and Big Data Analytics,
ASTRI

Dr James Lei worked at Bell Labs, Lucent Technologies, Panasonic Research, and The Chinese University of Hong Kong. He was the President of New Jersey Chinese Computer Professionals Society, the Director of Chinese Association of Science and Technology, and Beijing Overseas Scientific Advisory Board. He was the Co-founder of Guangzhou International High-Tech Incubation Centre. Dr Lei has more than 100 publications in journals, conferences, and patent applications. His research has led to several technology startups. His research has won several international recognition, such as the 2011 CES Innovations Award, 2008 Taiwan Excellence Award, and 2007 IBM/Microsoft Consensus Award. His team has won the runner up finalist award at 2012 Grand Challenge Competition at the ACM International Conference on Distributed Event-Based Systems, and entered top 5% rank at the 2013 KDD Cup data mining competition. He received a Meritorious Award for International Mathematical Contest in Modeling by SIAM in 1989. He obtained Bachelor's degree from Beijing University, and PhD degree from Brown University.

Abstract

Technologies like AI and Big data begin to shape our environment and daily life. Hardly a day passes without some news or announcements on the latest development or progress in the technology field. How far away are we to the inflection point while fundamental machine intelligence can really take over? What are the latest developments and applications? We will look at some of the opportunities and threats in the future ICT era.


Trust me I am an Engineer
Trust me I am an IET Member
Trust me I am an IET Membership Development Coordinator
For Engineering Knowledge
For Industrial and Educational Networking
For Professional Registration
For Part of the Team in Working to Engineer a Better World
For Brighter Career Development.....
Join IET Today
Website: www.theiet.org/membership/becoming-a-member/join-the-iet/
Phone: 852-27781611
Email: admin@theiet.org.hk
The Institution of Engineering and Technology

Organising Committee

Chairman	Ir Alex LAI
Vice-Chairman	Dr WK YEUNG
Secretary	Mr Joe WAN
Treasurer	Ir Wallace POON
Sponsor Coordinators	Dr Ernest CHANG, Ir YC FONG, Ir Joseph LAI, Mr Herbert LEUNG, Ir Raymond LUI, Ir Jeff SUN, Ir Jason TANG
Speakers Coordinators	Dr Ernest CHANG, Ir Steve CHU, Mr Kakit HO, Ir Joseph LAI, Mr Joe WAN
Supporting Organizations	Ir Anthony KWAN, Mr Brian WONG
Floor Management	Dr Owen LAW, Mr KH MO, Ms Teresa WONG
Publication & Logistic	Mr KH MO, Dr WK YEUNG
Promotion Channel & Website	Mr Kakit HO, Ir Wallace POON
Souvenir and Certificate	Mr Ray TO
Registration Coordinator	Mr Herbert LEUNG
MCs	Mr Paul HO, Ms Sunnie IP

Organiser

The Institution of Engineering and Technology

Diamond Sponsor

MOTOROLA SOLUTIONS

Gold Sponsors

CLP 中電

REC Engineering Company Limited 盈電工程有限公司
(A wholly-owned subsidiary of Yau Lee Holdings Limited)

Silver Sponsors

AUTODESK.

COSMIC

HK Electric 港燈

Bronze Sponsors

esri China HONG KONG

FUGRO

HKT

SHUN HING GROUP 信興集團

Supporting Organisations

ASTRI 香港應用科技研究院

bcs The Chartered Institute for IT Hong Kong Section 英國電腦學會(香港分會)

50th Anniversary 1970-2020 HKCS Hong Kong Computer Society 香港電腦學會

香港青聯科技協會 Hong Kong United Youth Science and Technology Association

IEEE ELECTRONICS PACKAGING SOCIETY

IFMA Hong Kong Chapter

Internet Society Hong Kong Chapter

iPRO A Internet Professional Association 互聯網專業協會

香港資訊科技聯會 HONG KONG INFORMATION TECHNOLOGY JOINT COUNCIL

ITS HONG KONG

The Hong Kong Association for the Advancement of Science and Technology 香港科技協進會

前海

SCC 智慧城市聯盟 Smart City Consortium

Technology 科培網絡 Incubation Network

The Hong Kong Institute of Building Information Modelling 香港建築信息模擬學會

HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會
Control, Automation & Instrumentation Division 控制、自動化及儀器儀表分部

HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會
Information Technology Division 資訊科技分部