# SEE Dialogue with Professional Series (Sem B, 2020/21) Talk List

TALK TITLE & DESCRIPTION

# **Stay Curious and Embrace Change**

# SPEAKER

# Mr. Alex (Jun) Gao Head of Digital Health Lab Samsung Research America

# **Abstract:**

Fast technology advancement such as AI, 6G, and robotics, big societal challenges such as aging demographics, climate change, and global pandemic are all having a profound impact to the nature of our work, eliminating some old professions, while creating new ones. However, this is not a phenomenon in the 21<sup>st</sup> century, it happens through human civilization, just in much faster pace in our recent memory.

I'd like to share with you my career journey, an adventurous ride across US, Japan, China, and Korea working for 4 very different companies across many industries. Started from an engineer in semiconductor industry in Silicon Valley, transformed to a people manager running business operations, relocated to Tokyo as the planning manager to set up Sony's first R&D center in China, returned to Silicon Valley joining friend's SaaS startup as head of product, joined Samsung Research America as head of technology strategy, then founded digital health innovation lab, and leading the organization ever since...

I have learned not be fearful of growth and change, but embrace them. If you approach the world with curiosity, if you keep learning and exploring, you'll see possibilities unfold serendipitously, you'll reach places you can't imagine, you'll draw inspiration from the most unexpected of places.

# Date & Time:

21 January 2021 (Thursday), 11:30am – 12:30pm

# **Biography:**

Alex founded and is currently the head of the Digital Health Lab at Samsung Research America (SRA), with a mission to transform healthcare delivery via innovative digital technology, human centric design, and AI. Alex also serves on the Board of Managers for the Personal Connected Health Alliance (PCHA), a HIMSS organization dedicated to advancing the technology and application of connected health innovations.



Alex has 25 years of global experience building technology and innovation driven organizations, from the size of Fortune 100 to Silicon Valley startups. He brings broad and multidisciplinary experience across industry sectors of Media/Entertainment, Consumer-Electronics/IT convergence, Internet/Mobile communications, Energy, Semiconductor, and most recently digital health.

Alex previously led the Technology Strategy team at Samsung Research America (SRA), responsible for strategy for establishing models, principles and practices for successful R&D in Silicon Valley, evangelizing vision-driven initiatives that focus on services creation, user experiences design, product concept innovation, and computing science research.

Alex holds a Master of Science degree from Stanford University and a Bachelor of Science degree from Tsinghua University.

# **Choices in Future Career: Entrepreneurship and Research**

#### **Abstract:**

Have you ever thought of any alternative path in your choices of future career? There will be a great chance to learn more about that.

David, an entrepreneur and researcher, will share his experience with you, so that you can widen your perspective regarding the choices in career.

Date & Time: 22 February 2021 (Monday), 6 -7 pm

#### **Biography:**

Dr. Ng received his PhD degree in Electrical Engineering from HKU, where his engineering talents were duly honed. Dr. Ng is a current member of the HK Institution of Engineers, having been granted more than 20 patents in US and China over the years. Dr. Ng graduated with an electronic engineering degree from the HKUST, and subsequently completed an MSc degree in electronic & information engineering from the CityU, and had worked in Motorola Semiconductor, Arizona, USA.

As an Entrepreneur and Architectural IC design engineer, with over 20year impressive work experiences in high-tech industry, Dr. Ng founded technology companies focused in Integrated Circuit (IC) design, IoT-Smart Home, AI algorithm for Big Data Mining, and Digital Control, under the funding of multi-national companies and Venture Capitals, after serving in ASTRI (*Hong Kong Government Agency*), ON Semiconductor (*a NASDAQ-listed semiconductors company*) & Motorola (*an NYSE-listed Telecommunications Company*). Dr. Ng possesses a track record of raising <u>millions of US dollars</u> from the HK Government and industries to sponsor next-generation IC design technologies. During his years in ASTRI, Dr. Ng managed to help one client to go <u>listed in the Hong Kong GEM Board</u> by licensing the IP of Dr. Ng's team for production.

With special interests in the fields of both Green Power Management and Sensor, Dr. Ng's research areas cover efficient-&-safe LED driver IC, Dr. David Ng Adjunct Assistant Professor Department of Electrical and Electronic Engineering The University of Hong Kong



Digital-Protocol Fast-Battery-Charging IC, Energy-Harvesting enabling circuits, low-impedance bandgap reference, etc.

For Sensor areas, Dr. Ng's research covers low-noise amplifiers, analog-

to-digital, digital-to- analog data converters,  $\mu V$  (10<sup>-6</sup> V) bio-signal detection, like brain or heart signals (EEG/ECG), and further Digital Signal Processing (DSP) for the signals, like Fast Fourier transform (FFT).

Over the years, Dr. Ng has gained solid experiences of building up R&D teams from scratch to 10-50 engineers, for fast <u>Revenue Returns</u>, by commercializing over 16 product ICs for mass production simultaneously (some even up to Automotive Grade). Dr. Ng is currently pursuing a CityU EMBA degree, and is listed in "Beta Gamma Sigma", so as to further sharpen his professional business development skills.

Dr. Ng frequently speaks in seminars on IC designs, Brain Sensors, Power Electronics, Fast Battery-Charging and LED driver ICs. He has also published over ten academic papers. In addition, Dr. Ng is an Adjunct Assistant Professor and Honorary Lecturer in HKU and other tertiary institutions, teaching a wide range of engineering courses, including master-level ones, and supervising Master students for their Dissertations, for over 16 years.

#### **Experience Sharing on Career Development**

#### **Abstract:**

Entering the workplace is definitely a new page for fresh graduates. Some of them may be exciting while some others may have a little struggle. As young engineers, we would like to share our experience in career development with all of you and give several tips on how to prepare for entering the workplace. Also, some introduction to our areas of work including consultancy services and power system control will be included in the sharing. We hope that you can gain a concrete idea on what you will be facing during your career pursuit in the future.

Date & Time: 22 March 2021 (Monday), 6 – 7pm

# Biography of Ms. LAU WING CHI, Celia

I received BEng degree in Electronic & Information Engineering and MSc degree in Electrical Engineering from The Hong Kong Polytechnic University in 2013 & 2017 respectively. During my University life, I took a placement year in CLP Power Hong Kong Ltd.

After graduation from Bachelor degree, I started my career as assistant engineer in Parson Brinkerhoff (Asia) Ltd., taking the role of consultant in building services industry. Then, I joined The Hong Kong Electric Co., Ltd. as system control engineer to work on the Company's power system in 2015 and changed my position to planning engineer in 2017. My responsibilities include comprehensively assessing equipment planned outages, preparing effective contingency plans and providing support to sustain supply reliability, preventing major system interruption and ensuring operation efficiency.

#### **Biography of Mr. LO KWAN MING**

I graduated from Electronic and Information Engineering at The Hong Kong Polytechnic University in 2013 and completed a master degree in Electrical Engineering in 2017.

After graduation from university in 2013, I entered a building services consultancy firm which is Parsons Brinckerhoff Asia Ltd. I was responsible for preparing specifications and drawings of ELV systems

Hong Kong Electric – System Control Department

# Ms. Lau Wing Chi, Celia Planning Engineer HK Electric Co., Ltd



Mr. Lo Kwan Ming System Control Engineer HK Electric Co., Ltd



for different kinds of buildings. I have also completed a 2-year HKIE scheme A training in Electronic discipline.

In 2016, I joined HK Electric as system control engineer. My major duty is to monitor and control our power system including generation, transmission, and distribution via our SCADA system. In order to maintain the supply reliability to our customers on Hong Kong Island and Lama Island, I have to make operational decisions and take corrective measures related to power system operations in accordance with safety rules, standing instructions, and other code of practices. Upon contingency, I also need to take immediate actions to restore our system to normal conditions.

# Path to Success – Engineering a New Perspective on Engineering as a Career

## **Abstract:**

The development of sustainability has shifted from energy and operation efficiency to total wellness in the built environment. The key to safeguard our future is to drive the sustainability development of the built environment and turn knowledge into action from an engineering perspective.

This talk will share the journey of Samantha and some real-world examples of combining engineering expertise with sustainability to help projects to leap into the new age of smart and sustainable built environment.

#### **Date & Time:**

13 April 2021 (Tuesday), 6 – 7pm

#### **Biography:**

Samantha Kong is an advocate in sustainable development and Environmental Engineer by profession. From formulating the UN Sustainable Development Goals to advising on statutory bodies to influence policymaking, she has been involved in environmental, planning and sustainability projects in Hong Kong, Macau, mainland China, Singapore and Qatar.

Samantha is also serving on several government advisory boards and committees to advise strategies in promoting youth development and environmental education programmes. She was named the Young Woman Engineer of the Year by the Institution of Engineering and Technology Hong Kong in 2019, Environmental Educator 30 Under 30 by North America Association for Environmental Education in 2018 and Hong Kong Top 10 Outstanding Youth in 2014.

#### Company profile

Arup is the creative force at the heart of many of the world's most prominent projects in the built environment and across industry. Working in more than 140 countries, the firm's designers, engineers, architects, planners, consultants and technical specialists work with our clients on innovative projects of the highest quality and impact.

We shape a better world.

