Department of Electrical Engineering
香港城市大學
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CityU Architecture Lab for Arithmetic and Security (CALAS) Seminar Series

香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Are Engineers Better in Educating Human or Training Robots?

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Abstract:

We are living in a fast changing world that required ability to quickly adapt to new knowledge and technology. However, the evolving of the education system is relatively slow and majority of the approaches is still aimed at the transfer of technical knowledge. In particular, the education administration is still focus on the quality and quantity of content, and using syllabus as the governing tool. It results in training based on pattern recognition similar to machine learning. This produces employees equipped with specific skill and their objective to get training is to look for job. It is also a trend that engineer are more interested to devote attentions and resources to research in Artificial Intelligent in training robots rather than human. The competition between AI and technically trained Human become unavoidable. So, what is the problem of the current education system? On the other hand, with the help of AI training, how can educator take advantage of it and move education to a higher level with human centric? I will try to answer the above questions based on my recent experience.

Biography:

Dr. Mansun Chan is currently serving as the Alex Wong Siu Wah Gigi Wong Fook Chi Professor of Engineering and Chair Professor of the Department of Electronic and Computer Engineering at the Hong Kong University of Science and Technology (HKUST). Dr. Chan received his BSc in Electrical and Computer Engineering from the University of California, San Diego in 1991, and went on to earn his PhD from the University of California, Berkeley in 1995. He is an expert in emerging semiconductor devices, having published over 300 journal and 500 conference papers on the subject. Dr. Chan is widely recognized for his contributions to the development of the unified BSIM model for SPICE, which has been adopted as the first industrial standard MOSFET model by most US companies and the Compact Model Council (CMC). He is also known for his leadership in the research group that demonstrated the first Stacked CFET technology, which is considered to be the most promising option to extend CMOS scaling beyond the 2nm technology node. Dr. Chan is also actively engaged in entrepreneurship and educational initiatives. He has co-founded and invested in over 20 companies, with three successfully completing IPOs. Recognizing the growing popularity of online courses, he launched an animation-based MOOC class on semiconductor devices, which has been widely received by learners around the world, with over 25,000 students enrolled. He also initiated a series of electronic circuit construction training modules and competitions for primary and secondary school students, which have become a key outreach program for EDS in engaging young engineers. As a result of his educational activities, he has received the teaching award four times from the Engineering School of HKUST and the Michael Gale Medal for Teaching Excellence from HKUST. He has also been awarded the IEEE EDS Education Award for pioneering innovative approaches in electronic engineering education. Dr. Chan is a Distinguished Lecturer and Fellow of IEEE.

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