China’s Competitive Edge in Global Leadership on Scientific Discovery and High Technology

黄铠（Kai Hwang）
University of Southern California
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Abstract: In this talk, Professor Hwang will share his 40+ years of professional experiences on higher education and high technology in the US, China and Japan. He will provide an unique assessment of their competitive edges in leading the world economic growth. This will reveal the relative merits and shortcomings of the scientific/industrial systems in the top 3 world leading economic powers. By inspection of the fundamental strength and limitations on high-tech innovations in China, he will explore plausible ways on how to make global leadership deeply rooted inside China.

He will suggest new approaches to attracting the best students to receive higher education in China, namely making THU and PKU, etc. the top research university in the world. He will explore ways to recruit the top scientists to work at Chinese universities or mature engineers to work at China’s research centers. China must reverse the brain-drain exodus to the US and Japan and build a better social-economic system to retain talents at all works of life and help highly-educated personals to build their careers in China. All the system changes or social-economic reforms are hinged on building a global vision toward high-tech cultivation and sustainability in China or elsewhere.

Biographical Sketch: Kai Hwang is a Professor of EE/CS at the University of Southern California (USC). He is also an EMC-endowed visiting Chair Professor at Tsinghua University since 2008. He received the Ph.D. from University of California, Berkeley in 1972. He was also a visiting chair professor at many leading universities in Tokyo, Hong Kong, Minnesota, Taiwan, etc. He has published extensively in computer architecture, parallel processing, distributed systems, cloud computing and network security. His works have been cited more than 14,000 times with an h-index of 50.

An IEEE Life Fellow, he received the very-first Outstanding Achievement Award from China Computer Federation (CCF) in 2004 and the Lifetime Achievement Award from the IEEE CloudCom 2012 for his pioneering work in parallel computing and distributed systems. Among his Ph.D students graduated at Purdue University and USC, four were elected IEEE Fellows and one an IBM Fellow. He has delivered three dozens of keynote addresses in major IEEE/ACM Conferences. Hwang has performed consulting work for IBM, Intel, MIT Lincoln Lab, JPL at Caltech, ETL in Japan, Academia Sinica in China, GMD in Germany, and INRIA in France.