**專 題 演 講**

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題目： Past and Present about  High Performance Computing

摘要：

Over the last four decades, the capability of a processor has been increasing exponentially. Numerous scientific and engineering applications have been enabled by high performance computing (HPC) technologies over the years. However, today's HPC is not just about intensive computing, as the capability to collect, store and analyze big data has become increasingly important in scientific and engineering fields, too. Big data analytics and machine learning are attractive methods for seeking the hidden wisdom. On the other hand, the use of heterogeneous processing components, such as graphical processing units (GPU) and field programmable gated arrays (FPGA), has made HPC affordable to scientists and engineers for daily use, while parallel programming become less difficult. With these latest computing technologies, there are plenty of opportunities to advance the field. This talk will give a brief introduction to the evolution of HPC and discuss our recent research works on innovating computing systems and applications.

簡歷:

Dr. Shih-Hao Hung received the MS and PhD degrees in computer science from the University of Michigan, Ann Arbor, Michigan, USA in 1994 and 1998, respectively. He joined the National Taiwan University (NTU) in 2005 and is currently a full professor in the Department of Computer Science and Information Engineering. His research interests include parallel computing, high performance systems, and information security. He has worked closely with the industry in designing state-of-the-art computer systems and has received the IBM Open Collaboration Research Awards in 2011 and 2012. Before joining NTU, he worked for Sun Microsystems, Inc. between 2000 and 2005, where he helped the adoption of cryptographic accelerators in enterprise systems and set the world record on the throughput of secure transactions.