Joint CQSE and CASTS Seminar

Weekly Seminar
Nov. 20, 2015 (Friday)

TIME   Nov. 20, 2015, 14:30 ~ 15:30
TITLE   High Performance Computing and Heterogeneous Systems
SPEAKER   Prof. Shih-Hao Hung
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PLACE   Rm716, CCMS & New Physics Building, NTU

Abstract

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 state of the art in HPC and discuss our research works on innovating computing systems and applications.