



Fall 2009 CIS Distinguished Lecture Series

Cloud Computing: Virtual Clusters, Security and Geospatial Applications

Kai Hwang
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*11am-12pm, Wednesday, November 18
TECH Center 111*

Abstract: Gartner Report has ranked virtualization and cloud computing as the top two technologies in 2009. In this talk, Dr. Hwang will assess the role of virtualization technology in protecting cloud resources and datasets in three Cloud service models, namely the SaaS, PaaS, and IaaS. He will present virtualization techniques to secure clouds and a hierarchical reputation system for data protection in distributed datacenters. Virtual machines enable dynamic cloud resource provisioning and secure the datacenters in web-scale cloud applications. In particular, security and privacy protection in geospatial query processing will be assessed in a cloud-enabled environment. This talk is based on joint research work performed at USC Internet and Cloud Computing Lab directed by Dr. Hwang in collaboration with Tsinghua University in China and the Institute of Computing Technology, Chinese Academy of Sciences.

Bio: Dr. Kai Hwang is a Professor of Electrical Engineering and Computer Science at the Univ. of Southern California (USC). He received the Ph.D. in Electrical Engineering and Computer Science from the Univ. of California, Berkeley. He has published 8 books and over 210 scientific papers in computer architecture, parallel and distributed computing, network security, and Internet applications. He was awarded an *IEEE Fellow* in 1986 for making significant contributions in computer architecture, digital arithmetic, and parallel processing. He received the 2004 *Outstanding Achievement Award* from China Computer Federation.

Hwang is the founding Editor of the *Journal of Parallel and Distributed Computing*. He has produced 21 Ph.D. students at USC and Purdue. Several of his former students are elevated to IEEE Fellows and IBM Fellow. His latest research publications cover e-commerce, cloud computing, P2P networks, reputation systems, Grid performance, and copyright protection. He has delivered 30 keynote addresses in major IEEE/ACM Conferences and performed advisory and consulting work for IBM, Intel, MIT Lincoln Lab., Academia Sinica, ETL in Japan, and INRIA in France. Contact him at kaihwang@usc.edu.

Refreshments will be served!