Search

CENTER FOR COMPUTATION & TECHNOLOGY
Interdisciplinary | Innovative | Inventive

LOUISIANA STATE UNIVERSITY

Events

Current Events
Lectures▼
Events Archive▼

CCT Colloquium Series

Reliability-aware runtime system research for HPC

Dr. Chokchai "Box" Leangsuksun, Louisiana Tech University

Associate Professor in Computer Science and the Center for Entrepreneurship and Information Technology (CEnIT)

Johnston Hall 338
March 23, 2007 - 03:00 pm

Abstract:

High Performance Computing is an essential enabling technology not only for scientific advancements but also economic and business driving forces, especially for today digital world. Time to market, time to insight and time to discovery are prime objectives in HPC and grid adoption and utilization. In addition, a recent introduction of dual-core and multi-core processor products will propel adoption of HPC in the mainstream environments. Experts have predicted that personal supercomputer will soon be available on the desktop. Nevertheless, there are many challenges lie in a wide spectrum of obstacles such as mismatches in the technological advancements of hardware and software components, programmability, system reliability, and robustness, especially in very large scale systems. In this talk, Box will present his current research and development in HPC, especially his effort towards non-stop services in High Performance Computing Environment. His work specifically aims on addressing practical problems. The talk will focus on issues in current HPC runtime system and his reliability-aware R&D approaches. He will also describe his proposed architecture, design analysis and infrastructure research on High Availability, Serviceability, Security and Performance computing together. He will also present his current findings from the design analysis and experimental results which suggest a significant improvement as well as his upcoming R&D plan and potential collaborations.

Speaker's Bio:

Dr. Chokchai "Box" Leangsuksun is an associate professor in computer science and the Center for Entrepreneurship and Information Technology (CEnIT) at Louisiana Tech University. He received the Ph.D. and M.S. in computer science from Kent State University, Kent, Ohio in 1989 and 1995 respectively. His research interests include 1)Highly Reliable and High Performance Computing, 2)Intelligent component based Software Engineering, 3) Service-Oriented Architecture, Service engineering and management, and 4) High Performance Scientific computing & Bioinformatics Prior to joining Louisiana Tech University in early 2002, Box was a member of the Technical Staff, Lucent Technologies-Bell Labs Innovation, from 1995-2002 and was responsible in many key research and development roles in various strategic products. Within a short academic time span, Box has established his name and research recognitions by founding and co-chairing a high availability and performance workshop, serving as program committee in various international conferences/workshops, releasing open source software, writing articles featured in major technical journals/magazines, and giving presentations in highly-regarded conferences. He has also collaborated with various research groups and national and industrial labs, which include Oak Ridge National Lab, Ames, Lawrence Livermore, Dell, Intel, and Ericsson etc. In September 2003, he received an outstanding teaching award from the college of Engineering and Science, Louisiana Tech University. After the Hurricane Katrina landfall, few phones worked and many people could not find each other. Box with a group of his students built a searchkatrina.org website that allowed people entering the name of someone they wanted to locate. The website had collected more than 25,000 entries and more than 10,000 visits.

Refreshments will be served.
This lecture has a reception.

LSU