

JOINT SEMINAR

Big Data Institute & Department of Computer Science and Engineering, HKUST

Power-Proportional Transaction Processing

Prof Ken Salem

Professor, Cheriton School of Computer Science, University of Waterloo

Date : 18 May 2018 (Friday)**

Time : 11:00am - 12:00pm

Venue : Chow Tak Sin Lecture Theater (LT-G), HKUST**

**** Seminar date and venue are updated**

ALL ARE WELCOME!

Abstract

Servers consume a lot of power. They are more inefficient when they are not fully loaded, which is common. In this talk, I will focus specifically on transaction processing servers, and will consider what can we do, in software, to make such servers more power proportional. I'll present two pieces of recent work. The first focuses on improving the power proportionality of CPUs through careful management of CPU voltage and frequency scaling. The second focuses on improving the power proportionality of memory, which is of growing concern because of the demand for in-memory computing.

About the speaker

Ken Salem is a professor in the Cheriton School of Computer Science at the University of Waterloo, which he joined in 1994. He received his Ph.D. in computer science from Princeton University in 1989 and spent several years at the University of Maryland before moving to Waterloo. He has also held visiting research positions at IBM's Almaden Research Center and at HP Laboratories in Palo Alto. His research interests include database management, storage systems, and cloud computing. His work has led to best paper awards at the International Conference on Very Large Data Bases (VLDB) in 2011 and the ACM Symposium on Cloud Computing (SoCC) in 2015, and the influential paper award at the IEEE International Conference on Data Engineering (ICDE) in 2007. He is an ACM Distinguished Scientist.