

Seminar Topic: Computing in the Cloud

Seminar Speaker:
John J. Prevost, Ph.D.
Assistant Professor of Research
ECE - COE - UTSA



Abstract

As cloud computing has gained popularity so have the perceived benefits and challenges. New paradigms are being developed that will allow the cloud to encroach on the traditional HPC computing architectures. Data Analytics using Map/Reduce and a distributed file system are making it possible to achieve performance in parallel across inexpensive systems that rivals that of the supercomputers of only a few years ago. The cloud also has a bipolar effect on efficiency. Although it is a more efficient use of physical systems, the economics of scale associated with cloud computing has dramatically driven up the total carbon footprint of providing cloud resources to end users. We will examine the topology of the cloud and its key technologies. We will present a method of optimizing the resources as discuss application of the cloud in robotics.

Bio Summary for John J. Prevost

Dr. John Jeffery Prevost received his first B.S. degree from Texas A&M in Economics in 1990. He received his second B.S. degree in Electrical Engineering from the University of Texas at San Antonio, where he graduated Magna Cum Laude in December 2009. In 2012 he received his M.S. degree in Electrical Engineering, also from the University of Texas at San Antonio along the way to earning his Ph.D. in Electrical Engineering in December, 2013. His current academic appointment is Assistant Research Professor in the department of Electrical and Computer Engineering at UTSA. In 2015, he co-founded and became the Chief Research Officer and Assistant Director of the Open Cloud Institute. Prior to his academic appointment, He served many roles as a technical leader in the computer hardware and software industry. He has served as Director of Product Development, Director of Information Systems and Chief Technical Officer for various technical firms in the San Antonio area. He remains an active consultant in areas of complex systems and cloud computing and maintains strong ties with industry leaders. His is a member of Tau Beta Pi, Phi Kappa Phi and Eta Kappa Nu Honor Societies, and has been a member of IEEE since 2006. His current research interests include energy aware cloud optimization, cloud controlled robotics, cloud based communications, and quantum cloud computing.