

**ABSTRACT:**

The world of computing is expanding beyond the personal computer to an exciting spectrum of computing devices. This presents an interesting opportunity for system researchers. In particular, it demands revolutionary system infrastructures to provide quality of services to billions of devices. It requires extreme energy efficiency to deliver sustainable services. It calls for ultimate resiliency to offer non-stop operations. Most importantly, it must be secure and trusty worthy to support the vast digital economy. In this presentation I will discuss how the rapid evolution of Cloud Computing is addressing these challenges. I will review recent progresses in key ingredient technologies in the industry. I will also project a compelling data center architecture that will challenge the research community in delivering the very best infrastructure for the future of computing.