Colloquium

Date, time & venue: Thursday, October 19, 2017, 3:30-4:30 in LC05

Title: **Energy Efficient Seamless Service Provisioning in Mobile Cloud Computing**

Speaker: **Prof. Sateesh Kumar Peddoju, Indian Institute of Technology, Roorkee**

Hosted by: Pradeep Atrey

Abstract: The wireless communication research community is on the surge to provide fifth generation (5G) access technology to reduce latency, provide enormous bandwidth for faster transmission of multimedia data, improved technology to provide Internet of Things (IoT), simultaneous connection with several wireless networks, and seamless handover from one wireless system to another. This breakthrough in mobile devices and cellular networks brings along a number of challenges to address, such as energy consumption of mobile devices, delivering uninterrupted service for mobile users, security of data transmitted over the wireless medium and managing heterogeneous access schemes to provide service. Initially, this talk covers some of these issues and challenges.

Cloud computing reduces the burden on mobile devices to execute compute-intensive applications and to store vast amounts of data in the device. Wielding Cloud services for mobile devices is termed Mobile Cloud Computing (MCC). While offloading computation can reduce the energy consumption of devices, communication with the Cloud expends a good amount of battery power from the device. Thus, the balance of computing and communication is vital for saving the device's energy. To strike this balance, we have developed a system to reduce the energy consumption and increase the service availability. I will also talk about the working of this model and its modules such as application partitioning, offloading, and handoff.

In the end, I will conclude the talk with a couple of results achieved during our experimentations.

Speaker's brief bio: Sateesh K. Peddoju is currently working with Department of Computer Science and Engineering, Indian Institute of Technology Roorkee, India. His current research interests are in the areas of Cloud Computing, High Performance Computing, and Mobile & Internet-of-Things. He is associated with several international conferences/workshops as Advisory Member, General Chair, Session Chair, Keynote Speaker, and TPC Member. Currently, he is serving as the reviewer for journals from IEEE: TCC, TSC, Elsevier: COMNET, COSE, COMPAG, Springer: MTAP, NCAA, SpringerPlus, IJSA, and NASL. He is the member of OpenPOWER Foundation (OPF) and contributing to Academic Discussion Group (ADG), acting as Vice-Chair for IEEE CS-India Council, and Founder Faculty Sponsor for ACM Students Chapter. He is the member of IEEE, IEEE CS, ACM, DMTF, and CSI. He is the recipient of several awards like IBM Shared University Research (SUR) Award, Best Teacher Award (KITS), University 4th rank (KU) and several Best Paper awards.

For more information, please contact Dr. Pradeep Atrey, email: patrey@albany.edu, phone: (518) 437 4943