

Computer Science Seminar Series

National Capital Region

Data Science for CPS: Some Examples from Smart Buildings, Data Centers and Beyond

Speaker: Dr. Manish Marwah

Hewlett Packard Labs

Friday, February 24, 2017

1:00PM- 2:00PM, NVC 325

Abstract

Cyber-physical systems, built by integration of physical and computational elements, produce unprecedented amounts of data. Since these systems are complex and hard to model using first principles, data-driven models provide a promising alternative. In this talk, I will present our work on data science and its applications in improving sustainability of cyber-physical systems such as smart buildings and data centers. Specifically, I will talk about our work on energy disaggregation, meter placement in buildings, anomaly detection, short-term energy forecasting, and automating life-cycle assessment. Further, I will present some work on large scale data analytics in the context of smart meter and sensor data.

Biography



Manish Marwah is a senior research scientist at Hewlett Packard Labs. His main research interests are in the broad area of data science, and its applications to cyber-physical systems, such as smart buildings and data centers. In particular, his research has focused on designing data mining methods for sustainability and energy management. His research has led to over 60 refereed papers, several of which have won awards, including at KDD 2009, IGCC 2011, and AAAI 2013. He has been granted 35 patents. Manish received a Ph.D. in Computer Science from the University of Colorado, Boulder, and a B.Tech. from the Indian Institute of Technology, Delhi.