



Department of Computer Science and Engineering

Presents

Archan Misra, School of Information Systems, Singapore Management University

The LiveLabs Testbed & Advances in Real-time Mobile Sensing/Analytics

This talk will describe various research initiatives related to the LiveLabs Experimentation Platform, a unique “urban behavioral testbed” project at SMU that combines innovations in wireless networks, mobile sensing and Apps to enable an ecosystem of industry partners to test next-generation context-based applications. The LiveLabs testbed will involve approx. 30,000 real-life users in urban environments, such as the SMU campus, 2 major shopping malls and a resort theme park. After briefly introducing LiveLabs, I’ll cover three major research themes: a) accurate indoor location tracking, where I’ll explain the use of RF+sensor data fusion to achieve accurate indoor localization in public shopping malls; b) resource-efficient sensing and context estimation, where I’ll discuss approaches for adaptive and cloud-coordinated mobile sensing and c) adaptive femtocell networks, where I’ll present results on real-time RF mapping and performance prediction in indoor environments.

Bio: Archan Misra is an Associate Professor of Information Systems at Singapore Management University (SMU), with current research interests in the areas of pervasive computing & mobile systems, with specific focus on energy-efficient stream analytics, data mining for semantic activity recognition, advanced indoor localization and hybrid cloud+P2P middleware for context-based mobile applications. Over the past 12 years (as part of his previous jobs with IBM Research and Telcordia Technologies), he has worked and extensively in the areas of wireless networks, pervasive computing and mobile data management and is a co-author on papers that received the Best Paper awards in EUC 2008, ACM WOWMOM 2002 and IEEE MILCOM 2001. He is presently an Editor of the IEEE Transactions on Mobile Computing and the Elsevier Journal of Pervasive and Mobile Computing and chaired the IEEE Computer Society's Technical Committee on Computer Communications (TCCC) from 2005-2007. Archan received his Ph.D. in Electrical and Computer Engineering from the University of Maryland at College Park and his B.Tech in Electronics and Communication Engineering from IIT Kharagpur, India.

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University at Buffalo – North Campus – Davis 113A

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For more information, please email cse-dept@cse.buffalo.edu or contact (716) 645-3180