DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
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COMPUTER SCIENCE COLLOQUIUM

Pervasive Computing: Bridging Multi-disciplinary Knowledge

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IMADA's Seminar Room

Abstract:

The emerging Pervasive computing is continuing to evolve and shape our future lives. The research problems in this area are often multifaceted and multidimensional, requiring in-depth and cross-disciplinary knowledge to obtain solutions. In this talk, I will first investigate the problem of providing a scalable and robust context lookup service in multiple spaces. I will demonstrate how to address several critical issues efficiently by leveraging on the semantic web and Peer-to-Peer technologies. Then, I will present our recent effort on sensor-based human activity recognition. We design our Emerging Pattern based algorithm to address a challenging problem of recognizing both simple (i.e., sequential) and complex (i.e., interleaved and concurrent) activities, and evaluate our solution through comprehensive real-world empirical studies. On-going research and open problems will also be discussed.

Host: Kim Skak Larsen