

PH.D. PRELIMINARY ORAL EXAMINATION

**Friday, October 28th
3:30p.m. @ 216 Atanasoff**

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Situation-Aware, Data Driven Predictive Analysis in Smart Environments

With the recent developments in technologies such as Internet of Things (IoT) and Cloud Computing we have now entered the Big Data era. In particular, in a modern sensor-laden environment we expect that a huge amount of data can be generated from many sources including hardware and software sensors, and oftentimes humans as sensors too. The significant amount of data thus generated allows IoT applications to make data-driven decisions in a timely manner. However, the big data generated from a broad spectrum of heterogeneous sensors may not be practical unless it be understood, analyzed, and interpreted in order to extract knowledge. Traditional predictive analysis approaches have become less effective because of the huge amount of data that both affects data processing efficiency and complicates the data semantics. In this study, we propose a data-driven, situation-aware framework for predictive analysis in smart environments.

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