



The Berkeley Sensor & Actuator Center
presents

The BSAC Researcher Seminar Series

featuring

Dr. Osama Khan
of the
Kris Pister Research Group

Dynamic Networks

SEPTEMBER 12
2017

12:15 | 490 Cory Hall

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The September BSAC Researcher Seminar Series will feature Dr. Osama Khan of Prof. Kris Pister's group.

Dr. Khan joined BSAC as a visiting research scholar in 2014. His research on the Single Chip Mote has earned the Best Poster honor at both the 2017 Sensors Expo & Conference and 2017 Spring BSAC Research Review.

In this presentation, Dr. Khan will discuss current research on microsystems which enable connectivity to be embed into everyday objects needed to achieve the scale the Internet of Things (IoT) promises, i.e., one trillion wireless sensors in the next 10 to 15 years. The lifetime, robustness, profile, and cost of these microsystems plays a critical role to enable emerging applications. The single chip mote hardware platform is developed to address these needs. The bottom-up architecture of the system-on-chip (SoC) meets the new use case and performance requirements of energy constraint environments with limited energy capacity (e.g., batteryless operation) from harvested energy or operation from printed batteries. Dr. Khan's project seeks to reduce the active radio power by a factor of 10, reduce the overall system cost, and minimize the profile of a microsystem by eliminating external components (e.g., crystal frequency reference) that are typically needed for a fully functioning wireless sensor node.

THE BSAC RESEARCHER SEMINAR SERIES IS OPEN TO BSAC MEMBERS, FACULTY, AND RESEARCHERS ONLY.