

Spring 2016 Seminar Series

SMART-SENSING USING SMART-SENSORS

FRIDAY FEBRUARY 19, 2016

10:00 AM – HEC 450

With the expansive usage of mobile devices and potential growth in the deployment of Internet of things, we will have proliferation of smart sensors in our handheld devices, wearables, and in our surroundings. Making sense out of the web of sensors is what we term as Smart-Sensing. Smart-Sensing would involve accurate and innovative sensing approaches while using minimal resources. In this talk, we will have an overview of a few approaches and novel ideas for Smart-Sensing using Smart-Sensors. Capturing the movement of fingers and hand gestures through accelerometer and gyroscope, we will develop the concept of finger-writing using smartwatches. Then we will explore how the WiFi APs can detect the movement of other devices at a fine granular level. Sensor assisted biometric authentication will be the next topic of our discussion. The last part of the talk will demonstrate the use of accelerometer for detecting voice and we will propose the use of this concept for saving energy consumption in smart devices. The talk will conclude with the summary of the potential scope and applications of Smart-Sensing environments.

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Dr. Prasant Mohapatra is a Professor in the Department of Computer Science and serves as the Associate Chancellor of the University of California, Davis. He is the former Tim Bucher Family Endowed Chairman of the department. In the past, he has held Visiting Professor positions at AT&T, Intel Corporation, Panasonic Technologies, Institute of Infocomm Research (I2R), Singapore, and National ICT Australia (NICTA), University of Padova, Italy, Korea Advanced Institute of Science and Technology (KAIST), and Yonsei University, South Korea. He is the Editor-in-Chief of the IEEE Transactions on Mobile Computing, and has served on the editorial boards of the IEEE Transactions on Computers, IEEE Transactions on Mobile Computing, IEEE Transaction on Parallel and Distributed Systems, ACM WINET, and Ad Hoc Networks. He has been on the program/organizational committees of several international conferences. Dr. Mohapatra is the recipient of an Outstanding Engineering Alumni Award from Penn State University, an Outstanding Research Faculty Award from the College of Engineering at

the University of California, and the HP Labs Innovation Research Award winner for three years. He is a Fellow of the IEEE and AAAS. Dr. Mohapatra's research interests are in the areas of wireless networks, mobile communications, sensor networks, Internet protocols, and QoS. Dr. Mohapatra's research has been funded through grants from the National Science Foundation, Department of Defense, Intel Corporation, Siemens, Panasonic Technologies, Hewlett Packard, Raytheon, Huawei Technologies, and EMC Corporation.

Hosted by: Dr. Jun Wang

