SCHOOL OF COMPUTING SEMINAR
Tuesday, March 28, 2017
2:30 to 3:30 pm
Dupuis Hall 217

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Affective Computing in mHealth

Affective computing is that branch of computing which deals with the study of emotions. The study of human emotions which includes identifying, construing and simulating them makes the core concept behind affective computing. Affective computing deals with developing such machine or computer which is not only able to recognize, interpret and process emotions but also able to make decisions according to the situation. mHealth (mobile phone based healthcare) is a reality as portable devices (cell phones, smart phones, or PDAs), sensors, and RFIDs have become a part of our everyday lives. In Ubicomp lab, we have been using affective computing in mHealth projects. In the first project, we use facial expression and energy expenditure of a person to classify a person's affective state by continuously recording accelerometer data for energy and camera image for facial expression. In the second   project, we design, develop and evaluate a mobile-based intervention designed with the aim of teaching social skills to children with Autism Spectrum Disorders (ASDs). We also aim to study the anxiety pattern of children with ASDs during a social interaction intervention. In the third project, we validate the idea of using smart phone cameras for pain assessment of breast cancer patients in a developing country. In this talk, we discuss affective computing in the above mHealth projects

Sheikh Iqbal Ahamed is a professor of Computer Science and director of Ubicomp lab (www.mscs. mu.edu/~ubicomp) at Marquette University, USA. He is a senior member of the IEEE, ACM, and the IEEE Computer Society. He completed his Ph.D. in Computer Science from Arizona State University, USA in 2003. His research interests include mHealth, security and privacy in pervasive computing, affective computing, middleware for ubiquitous/pervasive computing. Currently, he has over 1 million dollar research grants in mHealth area and mobile/pervasive computing area. He has a number of collaborative mHealth projects with the researchers of different universities and non-profit organizations in USA. He has international mHealth projects in Bangladesh, Nepal, Taiwan and China. He has published 100+ peer reviewed journal, conference and workshop papers. He has received twelve best paper/posters awards in last five years. One of them was selected the best from 325 submitted papers. Dr. Ahamed serves regularly on international conference program committees in software engineering and pervasive computing such as COMPSAC 13, COMPSAC 12, PERCOM 08, and SAC 08. He is the Workshops Chair of COMPSAC 2009 and COMPSAC 2010. Currently, he is the Steering Committee Chair of COMPSAC 2017. He was Steering Committee Chair of COMPSAC 2016 and . General Chair of COMPSAC 2015. He was the Program Chair of COMPSAC 2011. He was the Program Co-Chair of WPS 2009 and SPTSA 10. He has been serving as the Steering Chair of COMPSAC since 2015. He is the Guest Editor of Computer Communications Journal, Elsevier. Here is a link of one of his high impact mHealth projects: http://www.marquette.edu/research/ documents/discover-2011-mobile-md.pdf. Dr. Ahamed can be contacted at   sheikh.ahamed@mu.edu; http://www.mscs.mu.edu/~iq.