



HUMANITY
CENTERED
ROBOTICS
INITIATIVE



Kunal Mankodiya University of Rhode Island

“Integrating Wearable Systems with Internet-of-Things for Telemedicine”



**Thursday, April 20, 2017
12-1pm
CIT 477 Lubrano Conference Room**

Abstract: Today, our global society is facing some unique healthcare challenges due to rising costs, growing elderly population, and the prevalence of chronic diseases. The emerging field of Internet-of-Things (IOT) holds a great potential to fulfill unmet needs of healthcare. IOT could provide personalized telemedicine to anyone, anytime, and anywhere. In this talk, Dr. Mankodiya will present Wearable IOT, a unique framework that establishes human-centered interconnections among wearable sensors, fog computing gateways, and big data analytics—key elements for the future success of IOT in healthcare practices. He will demonstrate some of his ongoing projects involving smartwatches and smart electronic textiles that are targeted to remotely intervene patients suffering from neuropsychiatric disorders such as Parkinson's, post-traumatic stress disorders, and autism. He will also touch upon the emerging paradigm of fog computing and its role in modern IOT concepts of smart cities and communities. Dr. Mankodiya will also discuss about his newly-developed courses and hack-a-thons for undergraduate and graduate students to nurture the skill of entrepreneurial and design thinking in the intersection of IOT and healthcare.

Dr. Kunal Mankodiya is the Director of Wearable Biosensing Lab and an assistant professor in the Dept. of Electrical, Computer, and Biomedical Engineering, University of Rhode Island, RI, USA. He pursued his postdoctoral research at Intel Science & Technology Center (ISTC) affiliated with Carnegie Mellon University, Pittsburgh, PA, USA. He received his Ph.D. degree in Computer Science from the University of Luebeck, Germany. He holds MS (University of Luebeck, Germany) and BE (Saurashtra University, India) degrees in Biomedical Engineering. He is a recipient of NSF CRII (2016) and CAREER (2017) awards. His embedded computing design of a smart-textile ECG system earned him the 2010 SYSTEX Award, University of Ghent, Belgium. He has published a book on wearable health monitoring that serves as a hands-on guide to program high-end application processors for healthcare applications. He organizes IOT Hack-a-Thons every year to promote entrepreneurial thinking in the area of IOT. His course on “Wearable IOT” that is funded and supported by VentureWell blends design thinking with IOT concepts to nurture entrepreneurial skills in undergrad and grad students.

Host: Jeff Huang/HCRI

For more information on this talk and the HCRI Speaker Series, contact hcri@brown.edu or visit hcri.brown.edu.