Wearable Technology – Materials and Applications

IPRIME Midyear Workshop

Tuesday, January 15, 2019
8:30 AM – 2:15 PM, Keller Hall, Rm 3-210
University of MN, Twin Cities East Bank Campus

Description
This workshop explores the new and rapidly evolving field of wearable technology. Wearable technology encompasses electronic and mechanical devices integrated into fabrics, and flexible substrates that can be worn on the skin. Applications include health monitoring and prosthetics, interactive wearable devices, and fashion. One aim of this workshop is to identify materials and interfacial engineering challenges associated with the development of these new technologies.

8:30 Registration, Coffee

8:45 Welcome and Introduction

9:00 Printable Two-Dimensional Nanomaterial Inks for Electronic and Energy Applications
Prof. Mark Hersam, Dept. of Materials Science, Northwestern University Abstract

9:45 Flexible Electronics for Customizable Biosensors and Neural Interfaces
Prof. Sarah Swisher, Dept. of Electrical and Computer Engineering, University of Minnesota, Abstract

10:15 Break

10:45 Textile- and Garment-Based Wearables: Challenges and Opportunities
Prof. Lucy Dunne, Dept. of Design, Housing and Apparel, University of Minnesota Abstract

11:15 Materials and Manufacturing for Multifunctional Yarns and Textiles
Prof. Julianna Abel, Dept. of Mechanical Engineering, University of Minnesota Abstract

11:45 Lightweight and Stretchable Cable Technologies
Paul Wagner, CEO, MN Wire

Lunch

1:00 Envisioning an Ambulatory Kidney To Improve Vitality (AKTIV)
Prof. Buddy Ratner, Center for Dialysis Innovation (CDI), School of Medicine and College of Engineering University of Washington. Abstract

1:45 Wearable Neuroprosthesis for Balance
Dr. Lars Oddsson, Co-Founder and CTO, RxFunction and Adjunct Professor, Medical School, University of Minnesota

2:15 Adjourn