



Electronic skins connecting cyberspace and human

Professor Takao Someya,
University of Tokyo, Japan

Abstract

Wearable electronics are expected to open up a new class of applications ranging from health-monitoring, motion-capturing, human-machine interfaces, and new IT fashion. In order to expand emerging applications of wearable technologies, printed flexible biomedical sensors have attracted much attention recently. In order to minimize the discomfort of wearing sensors, it is highly desirable to use soft electronic materials particularly for devices that come directly into contact with the skin and/or biological tissues. In this regard, electronics manufactured on thin polymeric films, elastomeric and textile substrates by printing are very attractive. This lecture will review recent progresses of wearables, smart apparels, and artificial electronic skins (E-skins) from the contexts of high-precision and long-term vital signal monitoring. Furthermore, the issues and the future prospect of wearables and beyond wearables will be addressed.

All staff and students are invited to attend. Tea/Coffee served before the lecture will provide an opportunity for networking.



Takao Someya is Professor of Department of Electrical and Electronic Engineering at the University of Tokyo, since 2009. He conducts fundamental research on organic transistors, flexible electronics, plastic integrated circuits, large-area sensors, and plastic actuators. He has received a number of awards including the Japan Society for the Promotion of Science (JSPS) Prize. He has been Global foundries Visiting Professor in National University of Singapore, since 2016, and Hans Fischer Senior Fellow in Technical University of Munich, since 2017.

