



**Seminar Topic:  
Towards Intelligent Wearable Diagnostics**

**Professor Chen Xiaodong**

### **Abstract**

Smart wearable sensors not only enrich our daily lives by offering enhanced smart functions, but they also provide health information by monitoring body conditions. For example, patchable sensors have the potential to better interface with the human skin, thus improving the sensitivity of detecting biological signals in our body. Crucial aspects towards the advancement of such sensors include the development of novel mechanically durable materials, flexible and stretchable substrates, deformable electrodes and circuits, bio-stable and bio-compatible platforms, and so on. In this talk, I will present our latest progress in fabricating wearable sensors based on rational design of structural materials, and development and integration of individual devices.

### **Biography**

Dr Chen Xiaodong is a Professor at the School of Materials Science and Engineering (MSE) and School of Physical and Mathematical Sciences (by courtesy) at Nanyang Technological University, Singapore. He is also the Associate Chair (Faculty) in MSE, and the founding Director of the Innovative Centre for Flexible Devices (iFLEX). He received his B.S. degree (Honours) in Chemistry from Fuzhou University in 1999, M.S. degree (Honours) in Physical Chemistry from the Chinese Academy of Sciences in 2002, and Ph.D. degree (Summa Cum Laude) in Biochemistry from the University of Muenster in 2006. After his postdoctoral stint at Northwestern University, he started his independent research career as a Nanyang Assistant Professor at NTU in 2009. In September 2013, he was promoted to Associate Professor with tenure, and then to Professor in September 2016.

His research interests include interactive materials and devices, integrated nano-bio interfaces and programmable materials for energy conversion. Currently, he is the Associate Editor of *Nanoscale* and the Scientific Editor of *Nanoscale Horizons*. In addition, he is a member of various editorial advisory boards for *Advanced Materials*, *Small Methods*, *Advanced Materials Technology*, *Scientific Reports* and *Journal of Laboratory Automation*. He was conferred as a Fellow of the Royal Society of Chemistry in 2016, and was awarded more than ten prestigious awards and fellowships, including the NRF Investigatorship, Small Young Innovator Award, Singapore NRF Fellowship, Nanyang Research Award and Lubrizol Young Materials Science Investigator Award.

**Wednesday, 21 March 2018 || Time: 2:00 pm – 3:00 pm**  
**Venue: MSE Meeting Room (N4.1-01-28)**  
**Hosted by: Professor Zhang Hua**