Seminar Title:

FROM ALICE TO ALITA: ADVENTURE OF SELF-POWERED SMART SYSTEM

Seminar Abstract:

With the blooming of consumer electronics and sensor network in the past decades, the vast applications and wide distributions of low-power consumption mobile electronics have reached every corner of our daily life, also make another story about energy beyond conventional batteries with limit life, which we named it as self-powered Smart System. In this talk, Prof. Haixia (Alice) Zhang will tell us her adventure in this field.

The talk will include three parts,

First, Alice will start with her own experience, how to find an exciting research topic from daily life, and how to make soft, flexible and functional materials to meet the requirements of smart system;

Second, Alice will give some examples of high performance TENG based hybrid nanogenerator, then multi-functional active sensors and actuators based on the same principle, including the method to mimic human skin with stretch ability and conductivity. These efforts make the system self-power or with low-power consumption, meanwhile, can adaptive with the environmental change with high sensitivity and fast responsibility.

Last, Alice will give some demonstrations of self-powered smart system, for example, skin-on-chip, smart watch, health monitor patch, will be introduced. The perspective of this field will be discussed in the last, like, how to make a really Alita? What's next?