



School of Materials Science and Engineering



Seminar Topic: Smart materials and Smart devices

Dr Long Yi

Abstract

Smart materials are most widely used in many applications including sensors, actuators, artificial muscles and so on. They are also known as intelligent or responsive materials which are designed materials with different properties that can be significantly changed in a controlled way by external stimuli, such as stress, electric or magnetic fields, light and temperature.

In this talk, I will report the progress of two most widely studied inorganic and organic smart materials, vanadium dioxide and hydrogel, as well as their applications in the energy saving smart window, stretchable devices and artificial muscles.

Biography

Dr Long's early career in Nanyang Technological University started with commercialization. She has successfully implemented technology transfer from lab to fab including the leading hard-disk company Seagate Technology.

Her recent research is to develop smart functional materials by manipulation of the structure from nano- to micron- scales to achieve the unusual properties. She is currently the most cited scientist globally in the area of thermochromic smart windows.

Wednesday, 25 March 2020 || Time: 2:00 pm – 3:00 pm||

Venue: MSE Meeting Room (N4.1-01-28)

Hosted by: Assoc Prof Oh Joo Tien

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