



Department of  
Mechanical Engineering  
The University of Hong Kong



## SEMINAR

### **Recent progress in improving efficiency of organic solar cells by morphological control**

**Date:** 24 March, 2023 (Friday)

**Time:** 10:00 a.m.

**Venue:** Room 7-35, Haking Wong Building, HKU

**Speaker:** Mr. Yu Guo (PhD candidate)  
Department of Mechanical Engineering  
The University of Hong Kong

#### **Abstract:**

Organic solar cells with light weight, flexibility, and low cost of fabrication can be a complementary choice to current commercial silicon solar cells to make use of solar energy. The power conversion efficiencies (PCEs) of organic solar cells have improved significantly in the past 20 years (from a few percents to over 18% recently). However, organic solar cells still lag behind their counterparts such as silicon and perovskite solar cells in efficiencies and thus need to be further improved to promote their practical applications. The PCEs of organic solar cells are highly dependent on the morphology, which affects the exciton diffusion, exciton dissociation, and charge carrier transport. Therefore, tuning of the morphology in organic solar cells is important to further improving their PCEs. In this seminar, recent process in improving PCEs of organic solar cells by fine tuning of morphology and the mechanisms behind the excellent performance will be discussed.

**ALL INTERESTED ARE WELCOME**

For further information, please contact Dr. P.C.Y. Chow at 3917 7905.