

***Prof. Jang-Kyo Kim***

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**Prof. Jang-Kyo Kim** is currently a Chair Professor in the Department of Mechanical and Aerospace Engineering; and directs the Finetex-HKUST R & D Center and the Advanced Engineering Materials Facilities at HKUST. Kim's research is centred on advanced materials, ranging from fiber composites to nanocomposites and to nanostructured materials for energy storage including rechargeable batteries and supercapacitors. Kim has written over 320 refereed journal papers and three research monographs. He has been serving as the Editor, Associate editors and Editorial board members of 14 journals, including *Composites Part A*, *Energy Storage Materials* and *Nanoscale Horizons*. He is an elected fellow of the *HKAES*, *HKIE*, *RSC* and *RAeS*.

## **Battery Research at Finetex-HKUST R & D Center**

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The Finetex-HKUST R & D Center was established in 2007 with a private donation for the development of nanoscale reinforcements, nanofibers and nanocomposites for multifunctional applications including energy storage materials. It houses equipment that can synthesize various nanocarbon materials, such as graphene and carbon nanotubes by chemical vapor deposition; carbon nanofibers by electrospinning; uni- and bi-directional aerogels based on graphene oxides and 2D materials like boron nitrides; and molecular-scale thin films by Langmuir-Blodgett (LB) method. The Center has developed novel characterization techniques for battery research, such as *in situ* TEM and *in situ* XRD analyses, which are capable of probing real-time evolution of Li/Na ion intercalation and reaction mechanisms with *in situ* imaging of battery electrodes.