DEPARTMENT OF CHEMICAL AND BIOLOGICAL ENGINEERING 化學及生物工程學系

The HKUST Energy Institute 香港科大能源研究院

Joint Seminar

Electrochemical Energy Engineering and Technology

By

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Abstract

Electrochemical energy engineering and technology innovation bring new momentum to the development of new energy vehicles and energy storage industry in the smart energy network. The research on electrochemical energy engineering and technology involves chemical engineering and technical challenges in the manufacturing and applications of electrochemical energy materials and devices, such as power batteries and fuel cells. This report will reveal the design of power and storage batteries as well as the scientific problems in battery management system through several case studies, and elaborate the role and position of electrochemical energy engineering and technology innovation in the revolution of chemical engineering, energy science and technology.

Bio

Professor Zifeng Ma is the Associate Dean and Chair Professor of the Energy Research Institute at Shanghai Jiao Tong University, the Director of Shanghai Electrochemical Energy Devices Research Center, the Director of the Chemical Industry and Engineering Society of China, the Chair of the Energy Storage Engineering Commission. Professor Ma has long been working on power and storage battery materials and devices, battery management system theories, and fuel cell catalyst research. Twice been appointed the Chief Scientist, Professor Ma directed the basic research on hydrogen and electricity storage system of fuel cell electric vehicles in the National 973 Program and large-scale electrochemical energy storage application projects, which have received great success. Professor Ma has over 300 publications, which have been cited for over 10,000 times, and was awarded the Most Cited Chinese Researcher (Energy) by Elsevier for 4 consecutive years. He has filed over 120 patent applications, including 4 PCT patents, and holds over 50 patents, many of which have been licensed. Professor Ma was selected the New Century Excellent Talent (2004) by the Ministry of Education, the Shuguang Scholar of Shanghai, the Excellent Academic Leader of Shanghai and the Leadership Talent of Shanghai. He was awarded the Special Government Allowance by the State Council of the People's Republic of China, the Baogang Outstanding Teacher Award, the China Industry-University-Research Cooperation Innovation Award (Individual), the Hou Debang Chemical Science and Technology Innovation Award by the Chemical Industry and Engineering Society of China, and the Excellent Research Award by the International Automobile Lithium Battery Association (IALB). He was also the winner of the Second Prize of the Technology Innovation Award by the China Petroleum and Chemical Industry Federation, the First Prize of the Scientific and Technological Progress Award by the Ministry of Education, and the Second Prize of the State Scientific and Technological Progress Award. In 2019, Professor Ma was elected as the Fellow of the Chemical Industry and Engineering Society of China.

Date : **9 December 2019 (Monday)**

Time : **11:00am**

Venue : **Room 4582 (Lift 27-28)**

ALL ARE WELCOME