

学术报告会

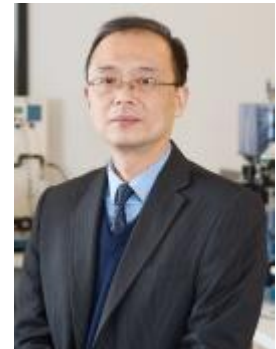
时间：2013年12月17日(周二)14:30-15:30

地点：电院群楼2-406会议室

Data, Intelligent Systems and Control

Prof. Kang Li

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Abstract:

The rapid development in information and communication technologies in the last decade has raised a number of challenges on how to effectively and efficiently deal with the amount and complexity of captured spatial-temporal raw data which are continuing to grow at an incredible rate for monitoring, storing and analyzing to generate situation awareness and to support real-time modelling, control and optimization in industrial processes. In this presentation, several key challenges in data driven modelling, identification and control, including nonlinearity, uncertainty, and curse of dimensionality are addressed. Several case studies are presented, including thermal power plant emission control, wide area power system monitoring, polymer process monitoring and control, and clinical chemical analysis approach to predict misuse of growth promoting hormones in cattle.

Biography:

Prof. Kang Li received the Ph.D. degree from Shanghai Jiao Tong University, Shanghai, China, in 1995. He is currently a Professor of Intelligent Systems and Control in Energy, Electric Power and Intelligent Control Cluster, the School of Electronics, Electrical Engineering and Computer Science, Queen's University Belfast, Belfast, U.K. His research interests include nonlinear system modeling, identification, and control, bio-inspired computational intelligence, and fault-diagnosis and detection, with recent applications to power systems and renewable energy, and polymer extrusion processes. He has published over 200 papers in his areas of expertise and edited 12 conference proceedings (Springer), and has led and participated in two major UK-China research projects on sustainable energy with over 10 leading Chinese Universities, totalling over 3 million pounds. Dr Li serves in the editorial boards of Neurocomputing, the Transactions of the Institute of Measurement and Control, International Journal of Modelling, Identification and Control, and Cognitive Computation. He chairs the IEEE UKRI Control and Communication Ireland chapter, and was the Secretary of the IEEE UKRI Section. He is also serving in the Executive Committee of the UK Automatic Control Council, IFAC Technical Committee on Computational Intelligence in Control, IEEE Computational Intelligence Society Neural Network Technical Committee, and Adaptive Dynamic Programming & Reinforcement Learning Technical Committee. He also held visiting fellowship or professorship at National University of Singapore, University of Iowa, New Jersey Institute of Technology, Tsinghua University, and Technical University of Bari, Taranto.