



中国矿业大学  
CHINA UNIVERSITY OF MINING AND TECHNOLOGY

# 学术报告

受中国矿业大学信息与控制工程学院邀请，英国布鲁奈尔大学王子栋教授在我校举行学术报告。欢迎广大师生踊跃参加！

**报告题目:** What You See Is Not What You Get: A Networked Estimation Perspective

**报告时间:** 9月10日上午10:00

**报告地点:** 信息与控制工程学院 A311

**主办单位:** 信息与控制工程学院

**报告人简介:**



王子栋，现任英国伦敦 Brunel University 讲席教授，欧洲科学院院士，欧洲科学与艺术院院士，IEEE Fellow，International Journal of Systems Science 主编，Neurocomputing 主编。多年来从事控制理论、机器学习、生物信息学等方面研究，在SCI刊物上发表国际论文七百余篇。现任或曾任十二种国际刊物的主编、副编辑或编委。曾任旅英华人自动化及计算机协会主席、东华大学国家级领军人才、清华大学国家级专家。

**报告摘要:** In this presentation, we talk about the state estimation problems for networked systems under unconventional measurements. Such unconventional measurements include, but are not limited to, 1) randomly occurring phenomena (e.g. delays, dropouts, saturations, quantization, fading, disorders, resolutions, biases, degradations, censorings, outliers), 2) effects induced by communication protocols (e.g. event-triggering protocol, round-robin protocol, try-once-discard protocol and random access protocol), and 3) effects induced by coding-decoding mechanisms (e.g. encryption-decryption scheme). Some background knowledge is first introduced from the perspectives of concepts, applications and challenges. Then, some detailed discussions are given on the optimal estimation issues with network constraints, system constraints and protocol constraints, and a few developed methodologies for handling unconventional measurements are discussed. Finally, we conclude our main contributions and some future directions.

