LSGI Distinguished Lecture Series

"Big Data and Intelligent Policing"

Overview

It was our pleasure to invite Prof. Tao Cheng, Director, SpaceTimeLab for Big Data Analytics, University College London, United Kingdom , to deliver a seminar of the LSGI Distinguished Lecture Series on 28 Dec 2018.

Biography

Prof. Tao Cheng is a Professor in GeoInformatics, the Founder and Director of SpaceTimeLab for Big Data Analytics (www.ucl.ac.uk/spacetimelab) at University College London, a multi-disciplinary research centre that aims to gain actionable insights from geo-located and time-stamped data for government, business and society. Her research interests span network complexity, Geocomputation, spatio-temporal analytics (modelling, prediction, clustering, visualisation and simulation) and data mining with applications in transport, crime, health, business, social media, and natural hazards. She has over 200 publications and secured research funds over £12M. She has worked with many government and industrial partners in the UK including Transport for London, the London Metropolitan Police Service, Public Health England and Arup.

Big Data and Intelligent Policing

Crime continues to cast a shadow over citizen well-being in big cities today, while also imposing huge economic and social costs. Prevention, early detection and strategic mitigation are all critical to effective crime intervention, especially in domains where coordinated responses are required. This talk will report latest findings from an interdisciplinary project Crime, Policing & Citizenship (CPC, www.ucl.ac.uk/cpc). The CPC project utilises spatio-temporal analytics, big data and network complexity theory to model spatial-temporal interactions among crime, policing and citizens, in order to provide the intelligence needed for policing in big data era. CPC develops a manifesto for 'intelligent policing' which embodies four inter-related issues that arise in the course of the journey from data collection to final policing outcomes. The manifesto has led to the development of several tools for use in real-world policing, including our network-based predictive mapping that is working in London Metropolitan Police. In conjunction with other tools for patrol strategy development and public

confidence analysis, these form a suite of tools tha can be used to support data-driven policing in an operational context.