

LSGI Distinguished Lecture Series

Space-Time Analytics of Urban Mobility

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Date : 29 December (Tuesday), 2015

Time : 10:30 AM

Venue : ZN604

Abstract

Understanding the space time movement of people in mega cities is of great significance in transportation, regional planning, anthropology, ecology and public health. With the widespread use of mobile devices and sensors, abundant mobility datasets are collected and have been widely used to detect travel mode, traffic flows, and point-of-interests in cities. Despite the emergence of the concept of mobility as a service, how to make best use of mobility data to reveal insights into travellers to develop better services is yet to be fully realised. This talk showcases the use of space-time analytics to turn “big” mobility data (GPS, smart card and social media data) into space-time profiles of individuals and places, enabling an improved understanding of people and the city towards better service. It also explores the research challenges and opportunities in applying the pervasive and social computing paradigm to understand people, cities and travellers.

Biography

Tao Cheng is a Professor in GeoInformatics at University College London (UCL) whose research interests span network complexity, Geocomputation, integrated spatio-temporal analytics (modelling, prediction, clustering, visualisation and simulation) and Big data mining with applications in transport, crime, health, social media, and natural hazards. Prof Cheng has studied and lectured in China, the Netherlands, Hong Kong, France and the UK. She has worked with many industrial partners in the UK including Transport for London, the London Metropolitan Police Service and Arup.

Prof Cheng is the founder and Director of SpaceTimeLab for Big Data Analytics (<http://www.ucl.ac.uk/spacetimelab>), a multi-disciplinary research centre at UCL that aims to gain insight from Big geo-data to understand spatio-temporal complexity in society, economics and engineering in order to enhance urban resilience and sustainability through engagement with government, public and industry. SpaceTimeLab focusses on developing theories, methods and tools for use in the real world such as intelligent transport, total policing and hazards prevention.

All interested are welcome

All registered attendees will receive a Certificate of Attendance after the lecture.

Registration link: <https://myacs.polyu.edu.hk/utills/mysurvey/index.php/132523/lang-en>

