罗骏教授学术报告

报告题目：Crowd-Sensing: From System to Theory

报 告 人：罗骏教授（新加坡南洋理工大学）

报告地点：电信学院会议室（南一楼中302）

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邀 请 人：蒋洪波教授

报告内容简介

With the proliferation of palm-size mobile computing devices (e.g, smartphones), we have in our hand a new tool for pervasive information collection, sharing, and exploration. For those information that traditionally require specific (possible very expensive) instruments or devices to gather, now can be outsourced to human crowds, hence the so-coined term Mobile Crowd-Sensing (MCS). Unfortunately, many proposals made by far are mostly deeming the crowd sensors as conventional sensors; such a “brute-force” manner of using MCS is significantly affecting its effectiveness.

Instead of immediately starting to harvest the hypothetical benefits of MCS like other existing works, this presentation aims to dig into the fundamental problems of enabling large-scale MCS. On one hand, we start with system constructions and experiments to validate MCS for specific applications. This not only demonstrates the usefulness of MCS, but also allows us to distill proposer models for further theoretical analysis. On the other hand, we report one contribution made to design novel and general mechanisms to incentivize MCS, based on the insights obtained from the system experience.

报告人简介

Jun Luo received his PhD degree in computer science from EPFL (Swiss Federal Institute of Technology in Lausanne), Switzerland, in 2006. He joined NTU-SCSE in 2008 as a tenured Associate Professor. Jun’s research interests mainly include mobile computing, wireless networking, and applied operations research. He has published 70+ top-tier articles and has earned 4300+ citations in Google Scholar. In particular, his contribution on mobile sensing (summarized in 3 publications) has attracted 1300+ citations, making him a leading expert in this field. At the same time, Jun has also participated in several industrial sponsored projects (including BMW and SAP, with more than S$1 million funding) aiming to transfer the research outcomes to practical applications.