



# 控制科学与工程学院 科技创新论坛



**报告人: Dr. Yuanchao Shu**

Cloud & Mobile Research Group at Microsoft Research Asia

**报告题目:**

**Path Guide: indoor navigation made practical**

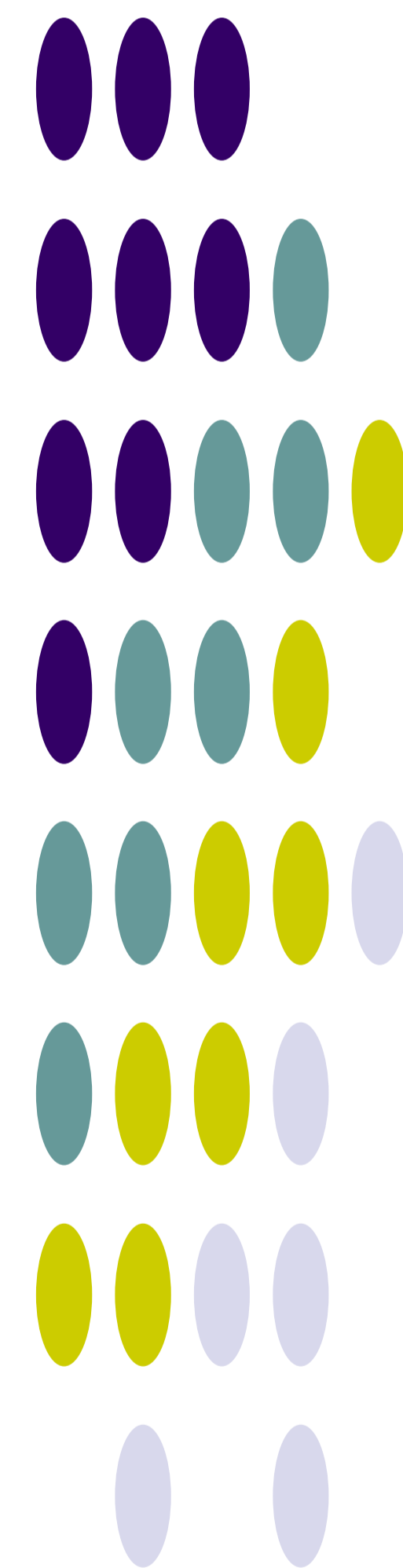
**报告时间: 周四 10:00-12:00 (2018年03月08日)**

**报告地点: 浙江大学玉泉校区工控新楼501室**

**报告摘要:**

Although GPS has become a standard component of smartphones, providing accurate navigation inside buildings remains an unsolved problem. During the past two years, we have created Microsoft Path Guide, a completely map-free, infrastructure-free, plug-and-play indoor navigation system that decouples navigation from positioning. Path Guide exploits the geomagnetism and natural walking patterns to guide users to a desired destination along a path that was taken by an earlier traveler. Path Guide consists of cloud services on Azure and a UX-focused Android app. A key advantage of our design is that it scales smoothly and can be deployed incrementally, circumventing the classic bootstrapping problem of many indoor positioning systems. I will conclude my talk with a brief overview of my other work in the domain of mobile sensing systems and network modeling, including my work on bicycle sharing systems.

**报告人简介:** Yuanchao Shu is currently a researcher in the Cloud & Mobile Research Group at Microsoft Research Asia. His research interests lie broadly in mobile and wireless systems, networked control and optimization, and mobile security and privacy. His previous research results have been published at top-tier venues including MobiCom, MobiSys, SenSys, INFOCOM, JSAC, TMC, TPDS etc. He won IEEE WCNC Best Paper Award in 2016, IEEE INFOCOM Best Demo Award in 2014, and was the recipient of ACM China Doctoral Dissertation Award and IBM PhD Fellowship. Dr. Shu received Ph.D. from Zhejiang University in 2015, and was also a joint Ph.D. student in the EECS Department at the University of Michigan, Ann Arbor.



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