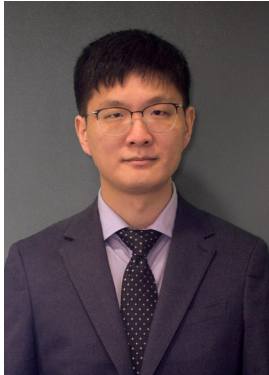


Smart Transportation Series: Modeling and Managing Dynamic Road Networks using Heterogeneous Multi-Source Data for Hong Kong



Dr Wei MA

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and Environmental
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Date: 28 Sep 2021 (Tue)

Time: 5:30 - 6:30 pm

Format: Online via Zoom

Registration: <https://us02web.zoom.us/j/9102560146>



(Successful applicants will receive the Zoom link before the event.)

Biography

Dr Ma is currently an assistant professor with the Department of Civil and Environmental Engineering at PolyU. He received bachelor's degrees in Civil Engineering and Mathematics from Tsinghua University, China, master's degrees in Machine Learning and Civil and Environmental Engineering, and PhD in Civil and Environmental Engineering from Carnegie Mellon University, USA. His research focuses on the intersection of machine learning, data mining, and transportation network modeling, with applications for smart and sustainable mobility systems. Dr Ma is now serving in the Early Career Editorial Advisory Board on Transportation Research Part C: Emerging Technologies.

Abstract

Transportation systems have become unprecedentedly complicated and inter-connected for many metropolitan areas like Hong Kong and New York over the past decade. Emerging technologies such as new mobility services (e.g. ride-hailing vehicles) and travel information providers (e.g. Google Maps) have raised practical issues for traditional transportation management systems. Hong Kong is striving to transform itself into a smart city with advanced Intelligent Transportation Systems infrastructure. To this end, many advanced sensing and communication technologies have been deployed in Hong Kong. Various data sources, including traditional traffic sensors (loops, cameras) and high-tech sensors (GPS probe, parking spot occupancy, social media), are available and have been archived for years.

However, these data sets are *not* fully utilized for the system-level decision-making for Hong Kong's transportation systems. In this presentation, the speaker will present his efforts on how to coherently integrate, operate, and manage the multi-modal transportation systems in Hong Kong using multi-source data.