

Post HKSTS Conference Workshop 2024

AI Powered Smart Transportation Operation and Infrastructure

Wednesday December 11, 2024 9:00 AM – 5:30 PM
 BC303 (Lecture Room), The Hong Kong Polytechnic University



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Session 1

9:00 – 9:10 AM	Prof WANG Yuhong, The Hong Kong Polytechnic University <i>Welcome and Introduction</i>
9:10– 9:40 AM	Prof ZHU Xingyi, Tongji University <i>Triboelectric Nanogenerator based Self-Powered vehicle-infrastructure collaborative perception.</i>
9:40 – 10:20 AM	Prof WANG Linbing, University of Georgia, <i>Balanced Mix Design and Performance Prediction using Machine-Deep Learning and Multiple Objective Optimization.</i>
10:20– 10:50 AM	Dr Bo Yu and Xiangyu Feng, Tongji University <i>AI-based driver behaviour prediction</i>
10:50– 11:00 AM	Break
11:00– 11:30 AM	Dr Tony Sze, The Hong Kong Polytechnic University <i>AI-empowered model for road safety analytics based on crowdsourced data.</i>
11:30– 12:00 Noon	Prof WANG Yuhong, The Hong Kong Polytechnic University <i>Influences of road-based traffic signage on drivers' behaviours</i>
12:00– 12:30 PM	Prof Zhiguo Zhao and Danshu Yan, Tongji University <i>Road-aided Vehicle High Precision and Reliability Positioning Method in GNSS-Deprived Environments.</i>

Lunch Break (12:30–14:00 PM)

Session 2

14:00 PM– 14:10 PM	Prof Edward Chung, The Hong Kong Polytechnic University <i>Welcome and Introduction</i>
14:10 PM– 15:00 PM	Emer. Prof Masao Kuwahara, Tohoku University, <i>Decentralized network optimum signal control by MARL based on traffic wave propagation.</i>
15:00 PM– 15:40 PM	Prof Tang Keshuang, Tongji University <i>AI and DT empowered Traffic Signal Control Evaluation, Diagnosis and Optimization.</i>
15:40 PM– 16:00 PM	Break
16:00 PM– 16:40 PM	Prof Meng Li, Tsinghua University <i>Resilient traffic control based on smart navigation under emergencies.</i>
16:40 PM– 17:20 PM	Dr Ma Wei, The Hong Kong Polytechnic University <i>Harnessing the power of Large Language Models in traffic management: Insights from Two Case Studies.</i>
17:20 PM– 17:50 PM	Closing remark

This workshop is supported by the Innovation and Technology Fund (ITF) and Ministry of Science and Technology (MOST) under their Mainland Hong Kong Joint Funding Scheme.

Jointly organized by

*The Hong Kong Polytechnic University
The Hong Kong Society for Transportation Studies (HKSTS)
Tongji University*

Co-organisers

*Prof. Edward Chung, The Hong Kong Polytechnic University
Prof. Wang Yuhong, The Hong Kong Polytechnic University
Prof Tang Keshuang, Tongji University
Prof ZHU Xingyi, Tongji University*

Registration: *free admission and registration is required for campus access code. All are welcome.*



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