

# Advances in Intelligent Traffic Management

## From Reinforcement Learning to Digital Twins

**Prof Masao Kuwahara**, Tohoku University, Japan.

*Decentralized Network-wide signal control by multi-agent reinforcement learning based on decomposition of Markov decision process*

**Prof Toshio Yoshii**, Ehime University, Japan.

*Effective traffic safety measures under the traffic condition with high accident risk.*

**Prof Edward Chung**, Hong Kong Polytechnic University.

*Network wide traffic volume prediction via clustering and deep learning with limited data.*

**Prof Lijun Sun**, McGill University

*Bayesian calibration and stochastic simulation of car-following models.*

**Dr Ryota Horiguchi**, i-Transport Lab. Co., Ltd.

*Building transport digital twin based on the online simulation framework.*

**Prof Wenyi Xia**, HEC Montréal

*A structural estimation of airport ground transportation mode choice using aggregate data.*



**McGill**  
UNIVERSITY

**FRIDAY, OCTOBER 13**

**9:00 AM – 12:30 PM**

**MechEng MD267 (Seminar Room)**

**2<sup>nd</sup> floor, MacDonald Engineering Building**

This workshop is supported by CIRRELT, TISED, SIL and the Government of Canada's Environmental Damages Fund under its Climate Action and Awareness Fund.