

## Predicting for the Adaptive Transport System

By Professor Francisco Camara Pereira, Technical University of Denmark - DTU **Date and time:** Wednesday, 10 April 2019, 3:00 PM - 4:00 PM **Venue:** Executive Seminar Room (S2.2-B2-53), School of EEE, NTU

## Abstract

It is not uncommon that traffic prediction tools and research report very high accuracy. However, the very few tools that exist in the market seem not to be performing as well as people would like, even though their accuracy may in fact correspond to the announced. There is a paradox in the field: traffic prediction is not difficult most of the time (the routine conditions), but sometimes it becomes extremely hard (the non-recurrent events), which is often when it is needed! In fact, our transport system, and in fact, the Smart City as a whole, is moving to a paradigm where supply can adapt much faster to demand than before, and this brings new challenges to predictability. It becomes less acceptable to fail!

This presentation will focus on ongoing and past work from DTU, MIT, CISUC and SMART/MIT related to treatment of non-recurrent events in transportation, and its interaction with system optimization.

## **Biography**



**Professor Francisco Camara Pereira** is a Professor in the Technical University of Denmark (DTU), where he leads the Machine Learning for Smart Mobility group (MLSM). His research is about the methodological combination of Machine Learning and Transport Research, and some applications include demand modeling, traffic prediction, data collection, or anomaly detection. He is Marie Curie fellow, and has published over 50 articles in both Machine Learning and Transport Research fields. Before joining DTU, he was Senior Research Scientist with SMART/MIT (2011-2015) and assistant professor in university of Coimbra (2005-2015).