

# Electric Mobility – Concepts and Methods



**Bin Hu, AIT Austrian Institute of Technology**

**Wednesday 8th January 2019 11:30**

**MCAST Institute of Engineering & Transport (IET) D211, Paola Malta**

The training is part of a week-mentoring by AIT Austrian Institute of Technology as part of the launch of the project

## ABSTRACT

The presentation contains two topics: systematic planning / operating electric car sharing systems and concepts for (mixed) electric fleets for freight transport. The main challenges of an electric car sharing system are the spatial and temporal imbalance of the demand on the one hand, and the necessity of periodical recharging on the other hand. We present methodologies to plan, optimize, and simulate self-sustainable electric car sharing systems with respect to vehicle fleet size, charging infrastructure, and monetary user incentive policies. For freight transport, electric vehicles have limitations due to their short range, but also bring advantages when cities are going to implement emission-free zones as ecological policy measures. In these areas, only electric vehicles or hybrid vehicles in electric mode may operate. We present different concepts and solution approaches to plan such operations in terms of city logistics.

**Dr. Bin Hu** studied computer science at the Vienna University of Technology. Since 2015 he is Scientist at the AIT Austrian Institute of Technology, Center for Mobility Systems. His research focuses on transport optimization and logistics. He is active in the scientific field through numerous publications in high-ranking symposia and journals. He further contributes his expertise to the Advisory Board of the European Transport Research Review (ETRR), Logistics Research Austria (LRA) and Advisory Council for Aeronautics Research in Europe (ACARE).

No registration is required. The event is open free of charge to MCAST staff and students. GDPR consent is required before event starts. The event may be recorded / live-streamed on NEEMO Facebook page and/or Youtube Channel. An electronic Certificate of Attendance may be given on request after the event