2nd ELIPTIC webinar: E-bus planning supported with simulation tools

Simulation tools help public authorities in the planning of e-bus systems and electrification of their fleets. This topic will be presented during the 2nd ELIPTIC webinar from 10:00 to 11:30 CET on 7 April 2017. Simulations are an integral part of the work in the use cases of Pillar A “Safe integration of e-Buses using existing electric public transport infrastructure” of the ELIPTIC project.

After a short introduction into the work of the ELIPTIC project and the use cases related to the webinar’s topic, the presenters from the research organisations RWTH Aachen, Fraunhofer IVI and Vrije Universiteit Brussel will show different aspects of simulation that help in the planning of e-buses. This will include the presentation of a software-based approach to find the optimal technical configuration for the use of e-buses on different routes. These calculations are a helpful tool to build sound business cases for the long-term use of electric bus systems. An example will be given of the results of a vehicle simulation-based feasibility study of converting a Diesel bus line with hybrid trolleybuses (by extending the existing trolleybus line) in a rural area in the East of Germany. Hybrid trolleybuses have an on-board energy storage which enables a fully electric operation without catenaries. Finally, the webinar will address design questions and charging strategies for e-buses.

It is ensured that enough time will be spent on the discussion of these different simulation aspects.

Agenda	
10:00 - 10:15	Welcome message and brief **introduction into ELIPTIC and Pillar A "Safe integration of e-Buses using existing electric public transport infrastructure"** – Yannick Bousse, UITP
10:15 - 10:40 (incl. Q&As)	**E-Bus Simulation: Finding the Optimal Technical Configuration** - Fabian Meishner, ISEA RWTH Aachen
10:40 - 11:05 (incl. Q&As)	**Conversion of a diesel bus line using hybrid trolleybuses: Example Eberswalde** – Thoralf Knote, Fraunhofer Institute for Transportation and Infrastructure Systems (IVI)
11.05 - 11.30 (incl. Q&As)	**Electrified Buses: Design Considerations and Charging Strategy** – Omar Hegazy, Vrije Universiteit Brussel Mobility, Logistics and Automotive Technology Research Centre (MOBI)
11:30	End of webinar

Register here. For more information please get in touch with Henning Günter from Rupprecht Consult, the organizer of the 2nd ELIPTIC webinar (h.guenter@rupprecht-consult.eu).

Speakers

Fabian Meishner works as research associate at the Institute of Power Electronics and Electrical Drives of RWTH Aachen. He is part of the battery research group under Prof. Sauer, working mostly in the field of electrification of public transport and is thereby part of the project “ELIPTIC”.

Dr.-Ing Thoralf Knote is the head of department at Fraunhofer Institute for Transportation and Infrastructure Systems. He has a background in traffic engineering (Dresden University of Technology) and started working for Fraunhofer IVI in 2001. His fields of expertise are public transport operation, innovative propulsion systems for public transport vehicles and implementation concepts for hybrid and fully electric busses

Prof. Dr. Omar Hegazy leads the power electronics and electrical machines (PEEM) team in MOBI Research Centre and ETEC Department. He is the author of more than 80 scientific publications. Prof. Dr. Hegazy fields of interest include power electronics, electrical machines, electric and (plug-in) hybrid electric vehicles, Energy/power management strategies, battery management systems (BMS), control systems, optimization techniques and renewable energy.

Yannick Bousse is a Project Manager at the International Association of Public Transport (UITP). Yannick is leads the use case monitoring and dissemination work in the Horizon 2020 ELIPTIC “Electrification of public transport in cities” project and will introduce Pillar A and moderate the webinar.