



E-mobility Transition: A Campus as a Demonstrator?

Friday, October 11, 2024

10:00AM – 11:00AM

GIS Auditorium 81-1130



CUMIN : *Campus of University with Mobility based on Innovation and carbon Neutrality*

The development of “greener mobility” is a central challenge of this century, critical for confronting global warming and pollution in urban areas. Many cities and campuses are developing innovative solutions to reduce their ecological footprint, with a focus on the transportation sector. This seminar summarizes efforts at University of Lille (France) to decarbonize transportation to and around the campus, as a demonstrator for city-scale decarbonization.

The University of Lille conducted a “Carbon report” to estimate its Greenhouse Gas footprint, finding that the primary GHG source is due to mobility/transportation of campus users. The CUMIN program (Campus of University with Mobility based on Innovation and carbon Neutrality) started in 2016 by proposing a demonstrator campus based on electro-mobility. This interdisciplinary program is composed of different scientific projects to develop advanced clean solutions to transport challenges. CUMIN is composed of 3 Science & Technology Labs, 3 Social & Human Science Labs, and 2 divisions of MEL (the European Metropolis of Lille, which operates the local public transit systems). Since its original formation, international collaborations were developed with Canada (Univ. Trois Rivières, eCAMPUS International Lab), USA (Rochester Institute of Technology), and Belgium (Univ. Ghent).



Alain BOUSCAYROL received his Ph.D. degree in Electrical Engineering from Institut National Polytechnique de Toulouse, France, in 1995. He is currently (Full) Professor at University of Lille, France. From 2004 to 2019, he managed the French national network on Energy Management of Hybrid Electric Vehicles (MEGEVH). Since 2015, he has been coordinator of the CUMIN (Campus of University with Mobility based on Innovation and carbon Neutrality) interdisciplinary program at the University of Lille. Since 2018, he has been co-director of the international research lab e-CAMPUS on sustainable mobility and also coordinator of PANDA - a European H2020 project on simulation and testing of electrified vehicles. His research includes control and energy management of various electrified vehicles, from cars to trains. He is currently General Chair of the steering committee of the Vehicle Power Propulsion Conference in the IEEE Vehicular Technology Society.

CUMIN Presenters

- CUMIN Program
Prof. Alain Bouscayrol (Univ. Lille, CUMIN coordinator)
- CUMIN-SARA (Social Acceptance of electric vehicles in Restricted Area)
Lucie Juncker (Engineer, TVES, Univ. Lille)
- CUMIN-REMUS (Recovery of Energy of Metros for University based on Sustainability)
Dr. Clement Mayet (L2EP, Univ. Lille)
- CUMIN-TESS (Technical-Economical Study of Sustainable campuses)
Prof. Eric Hittinger (RIT, Univ. Lille)
- CUMIN-TESSA (Techno-Economical Study of Second life batteries for Affordable e-mobility campus)
Martin CHAUD (PhD candidate, Univ. Lille)