



18 June 2021, Online

Welcome to Web seminar: Electromobility in Society Theses Bonanza

Electrified trucks and cars are commercially available and provides broad environmental benefits. However, costs, charging infrastructure access, and battery end-of-life concerns impede their market growth. Masters and bachelors theses presentations will explore these issues during this webinar.

When: 18 June 2021, 08:30 – 10:45

Where: Online via Teams

Registration: Please register **before 16 June 2021**

08:30 *Welcome*

08:35 **Electrification barriers for heavy-duty long haulage transportation in Sweden**

Ossian Brus & Emil Nordgren, Linköping University

This master thesis examines the barriers and motivators for implementation of electrification technologies to bring greater understanding between the different actors in the transport system.

08:55 **Impact of financial incentives on the TCO of commercially operating, long-haul trucks powered by sustainable alternatives**

Sumanth Sai Mikkilineni, Chalmers University of Technology

This master thesis is about gathering data on incentives and deterrents offered by different countries to aid the influx of sustainable alternatives to conventional trucks from a TCO perspective.

09:15 **Enabling long range truck transport through the use of a battery carrying trailers as range extender**

Felix Backgård, Andreas Hawerman, Albin Jansfelt, Sam Noble, Alex Persson, Viktor Svensson, Chalmers University of Technology

This bachelor thesis looks into barriers for electrification of long-range transports, and how a battery carrying trailer as a range extender can mitigate these barriers.

09:35 *Break*

09:45 **Implementation of a model-based decision support for spent Li-ion batteries**

Bente Andersson, Technische Universität Braunschweig

The aim of this master thesis is to develop a model-based decision support for an OEM regarding the handling of spent Li-ion batteries in the European market.

10:05 **Underlying motives affecting an OEM's make-or-buy decisions in the reverse-flow of EV batteries**

Felix Drangel & Oscar Hjerm, Blekinge Institute of Technology

This master thesis examines what factors that influences OEM's decision to insource, outsource or collaborate in the end-of-life operations remanufacturing, repurposing, and recycling for EV batteries.

10:25 **Enabling circular life-cycle thinking and measuring of sustainability**

Fredrik Byström, Chalmers University of Technology

This master thesis focuses on simplifying LCA into an easy-to-use tool for users with limited sustainability knowledge, while maintaining adequate accuracy, and stimulating circular life-cycle thinking.