Are you interested in writing your Master Thesis at Northvolt? Fabulous!

Lithium-ion batteries are more and more used in different applications like transportation, energy storage and various high demand industrial applications. In order to make the electrification successful and cost efficient, there is a high demand for a longer battery lifetime. One way of prolonging battery life is to over dimension the capacity of a battery, but this brings extra cost, another is to utilise the SOC window in a better way, especially if the day-ahead driving is known in advance.

Northvolt has an exciting opening for two graduate students of Electrical Power Engineering, Engineering Physics, or similar seeking to write a Master Thesis on Battery Aging and Battery Modelling.

The thesis work will be on Battery Lifetime Modelling based on experimental ageing data. The project aims to develop an empirical model to predict the battery ageing in electric and hybrid electric vehicles with regards to Depth of Discharge, SOC window placement, temperature and load. With the goal to create the first building block in creating an algorithm for optimizing battery dimensioning vs SOC utilization in respect to cost, weight, volume and other relevant parameters. Both the scenario when the driving is fairly well known one day in advance to a scenario with less knowledge about the usage the coming day is to be investigated.

If you would like to explore these areas within your thesis, we look forward to your application, preferably when you directly apply as a team.

We have an opening for an at least 20 week Master Thesis Project starting from January 2018. You will mainly be located at Chalmers University in tight collaboration with the Division of Electric Power Engineering and we (Northvolt) will support you on a weekly basis.

We expect you to be solution oriented, have high work ethics, be good at prioritizing, master a high level of self-management. The tempo is high and so is the spirit. We promise a lot of work and a lot of fun!

Does this sound interesting?
Please send your application containing a CV and Cover Letter, or a complete LinkedIn profile. In your application please write a short line about in what areas you would contribute the most and try to be as specific as possible.

Time plan: The work will be carried out at Chalmers between Jan 2018 and June 2018. Deadline for application is the 15th December.

Full time dedication, Master Thesis remuneration.

If you have questions about the Master Thesis Project, see contact details below.

We are looking forward to hearing from you!

SKILLS & REQUIREMENTS

Education/Experience

- Pursuing a Master of Science in Electrical Engineering, Engineering Physics, Electrochemistry or similar with focus on modelling or other relevant fields.

Specific Skills/Abilities

- Excellent English written and oral skills
- Ability to work under high pressure and tight deadlines, excellent time management
- Ability to work well with others in a team environment, as well as independently
- Ability to work in a high profile and often high pressured international environment
- Qualities that we cherish are flexibility, sense of quality, friendliness, motivation to take on new challenges, grit and a sense of humor
• Passionate & purpose driven

Contact Persons:

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