

RECHARGEABLE BATTERY SYSTEMS

BACKGROUND

Batteries underpin the transition to sustainable transportation and renewable electricity production and storage. Achieving this transition demands significant research and technology efforts. The rapid expansion in industry and battery technology requires many different competencies from chemistry and physics through electrical and mechanical engineering to data science and large-scale production.

This course aims to introduce the inner workings of current and next generation batteries, from the molecular to the installation level, with a particular emphasis on the sustainability. We will go through both current and next generation battery technology

COURSE DETAILS

The course will start in November 2022 and run through Ip 2/3. It will consist of a series of lectures by Chalmers researchers and industrial guest speakers, seminars, practical laboratory work and literature projects. Students from all master's programs are welcome to apply to the course.

CONTACT PERSON:
Matthew Sadd (matthew.sadd@chalmers.se)

COURSE TASKS

You will perform projects and laboratory work both individually and in groups. Topics for projects span from materials and mechanisms to the system perspective and can be tailored to match your background and interest. In addition there will be assignments and problems related to the lectures and course literature.

TEACHERS

- Laura Loaiza (Chalmers Physics)
- Shizhao Xiong (Chalmers Physics)
- Nataliia Mozhzhukhina (Chalmers Physics)
- Matthew Sadd (Chalmers Physics)
- Martina Petranikova (Chalmers Chemistry)
- Kasper Westman (Nortical)
- Helena Berg (Libergreen)
- Luis Aguilera (Heart Aerospace)

APPLICATION

To enroll, please send your Bachelor and Master course transcripts, and a one-page motivation letter explaining why you should attend the course.

Deadline: September 15, 2022.