COURSE DETAIL

HYDROGEN, BATTERIES, AND FUEL CELLS
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering Electrical Engineering Chemical Engineering
UCEAP Course Number 136
UCEAP Course Suffix
UCEAP Official Title HYDROGEN, BATTERIES, AND FUEL CELLS
UCEAP Transcript Title HYDROGN BATTRY FUEL
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

The course covers hydrogen as an energy carrier, how to produce it, and how to store it. The role of hydrogen in future energy systems is discussed. Electrochemical conversion in batteries and fuel cells is described and analyzed. All major transport processes, such as momentum, heat, mass, ion and current, and thermal management issues are presented. System integration is described. Properties and characteristics of energy-relevant materials and their role in electrochemical devices are treated. The relevance of energy systems and the transportation sector is discussed. Various engineering problems are presented.

Language(s) of Instruction
English

Host Institution Course Number
MVKP25

Host Institution Course Title
HYDROGEN, BATTERIES AND FUEL CELLS

Host Institution Course Details
https://kurser.lth.se/lot/course/MVKP25

Host Institution Campus
Lund

Host Institution Faculty
Engineering

Host Institution Degree

Host Institution Department

Course Last Reviewed
2022-2023

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