HAW Kiel
Hochschule für Angewandte Wissenschaften Kiel
Kiel University of Applied Sciences

MPROBT - Master Project - Battery Technologies

MPROBT - Master Project - Battery Technologies

General information	
Module Code	MPROBT
Unique Identifier	ProjBatTech-01-MA-M
Module Leader(s)	Prof. Dr. Weber, Christoph (christoph.weber@haw-kiel.de)
Lecturer(s)	Prof. Dr. Böhnke, Daniel (daniel.boehnke@haw-kiel.de) Dr. Kamm, Andre (andre.kamm@haw-kiel.de) Prof. Dr. Patz, Ralf (ralf.patz@haw-kiel.de) Prof. Dr. Weber, Christoph (christoph.weber@haw-kiel.de) Prof. Dr. Wree, Christoph (christoph.wree@haw-kiel.de)
Offered in Semester	Wintersemester 2026/27
Module duration	2 Semester
Occurrence frequency	Regular
Module occurrence	In der Regel jedes Semester
Language	Englisch
Recommended for international students	Yes
Can be attended with different study programme	No

Curricular relevance (according to examination regulations)
Study Subject: M.Eng. - BT - Battery Technologies Module type: Pflichtmodul Semester: 1, 2

Qualification outcome
Areas of Competence: Knowledge and Understanding; Use, application and generation of knowledge; Communication and cooperation; Scientific self-understanding / professionalism.
The Students are able to independently familiarize with new topics related to battery technologies and/or deepening existing knowledge through practical work.
They apply theoretical knowledge to a practical project of an unsolved technical problem. They evaluate existing solutions from literature and investigate different research methods in project work. From the developed outcome they are able to derive new scientific results.
Due to the organisation as a team of up to three members they are able to professionalize their communication and presentation skills towards different stakeholder groups (e. g. a client from a contracting company or the lecturer)
The project enables students to continously work scientifically, so that they are able to find practical solutions for scientific questions in the field of battery technologies. As the result, they create and implement innovative methods, experimental setups or devices. In this manner, students professionalize their problem-solving skills for unsolved technical problems.

Content information	
Content	This module consists of a compulsory research-oriented project work over two saemesters, which can be carried out either within the university or an external company. The topic of the project work should address an actual problem from the industry which is defined in the first semester. Students do a pre-planning of the the project usually accompanied with simulations and the setup of prototypes. The second semester should be used to optimize the final solution based on the knowlegde and the results of the first semester. If the project takes place within the university, it is desirable that it be carried out by a team of up to 3 members, where the company acts as a stakeholder. In both cases, the research topic must be agreed with the university staff before the project work begins. The master's research project requires independent work to deepen the knowledge from lectures. New research hypotheses can be developed independently. Project work typically includes: • Completing a literature review or comparative studies • Creation and evaluation of methods according to standard research methods • Conducting experiments and documentation • Publication of research results
Literature	Linden’s Handbook of Batteries, Thomas Reddy (Ed.) – McGraw-Hill Engineering Project Management, Nigel J. Smith – Wiley IEEE Xplore articles

Teaching formats of the courses	
Teaching format	**SWS**
Projekt	0

Workload	
Number of SWS	0 SWS
Credits	10,00 Credits
Contact hours	0 Hours
Self study	300 Hours

Module Examination	
Examination prerequisites according to exam regulations	None
MPROBT - Projektbezogene Arbeiten	Method of Examination: Projektbezogene Arbeiten Weighting: 100% wird angerechnet gem. § 11 Absatz 2 PVO: No Graded: Yes Remark: The examination takes place over a period of two semesters

Miscellaneous	
Miscellaneous	The project work is an independent task carried out by a team of students. As a rule, the students' progress is monitored weekly during a 30-minute meeting with the supervisor.