

Course title	<i>Energy Storage Lab</i>
Course code	<i>IP 414</i>
Module coordinator	<i>Miriam Heinrich</i>
Lecturer	<i>Prof. Dr. Pinkwart</i>
Level of course	<i>Bachelor</i>
Recommended prerequisites	<i>The laboratory can only be taken in combination with the lecture "Renewable Energy Storage" (IP 409, 2 ECTS)</i>
Type of course	<i>Lecture</i>
Weekly lecture hours (SWS)	<i>2 SWS</i>
ECTS credits	<i>2 ECTS</i>
Workload	<i>in total 60h, 30h course attendance, 30h self-study</i>
Assessment (grading; pass/fail)	<i>not graded</i>
Regular cycle	<i>Each semester</i>
Language of instruction	<i>English</i>
Contents:	<i>Students are taught the effects of the increasing share of renewable energy systems on the electricity grids. Selected laboratory tests on the two topics electrochemical energy storage (batteries) and conversion (fuel cells) are offered. Students learn how to model an energy system with renewable energy sources like solar and wind energy combined with battery storage.</i>
Learning outcome (competencies):	<p><i>After having successfully completed the course, the students should:</i></p> <ul style="list-style-type: none"> <li><i>• compare and understand the advantages and disadvantages of energy conversion and energy storage</i></li> <li><i>• correctly model, dimension and analyze energy sources and battery storage in a project, taking into account technical and economical boundaries</i></li> </ul>
Teaching methods	<input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Group work <input checked="" type="checkbox"/> Exercises <input type="checkbox"/> Simulation <input type="checkbox"/> Video feedback <input type="checkbox"/> Others:
Assessment methods	<i>Presentation</i>
Recommended reading	
Additional information	
Recognition of credits	