

Module title		Abbreviation
Energy-Aware Engineering		10-I-EnAE-212-mo1
Module coordinator		Module offered by
holder of the Chair of Computer Science III		Institute of Computer Science
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
In this module we learn about methods and metrics to evaluate energy demand and energy efficiency of technical systems. We study energy-aware mechanisms for transmitting data (for example, sensor data in the Internet of Things) and for operating technical systems (such as data centers and computer clouds).		
Intended learning outcomes		
The students are able to analyze and optimize technical systems with respect to their energy demands.		
Courses (type, number of weekly contact hours, language — if other than German)		
V (2) + Ü (2)		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 60-120 minutes) if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 15 minutes) creditable for bonus		
Allocation of places		
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Additional information		
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Workload		
150 h		
Teaching cycle		
Teaching cycle: every year, summer semester		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		
Bachelor' degree (1 major) Computer Science und Sustainability (2021)		