

Module title		Abbreviation
On board data processing		10-I-BDV-152-m01
Module coordinator		Module offered by
holder of the Chair of Computer Science VIII		Institute of Computer Science
ECTS	Method of grading	Only after succ. compl. of module(s)
8	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
Tasks of onboard data handling systems (ODHS), components of ODHS, interfaces to other subsystems, division into hardware and software tasks, system architecture, topologies, reliable systems, fault tolerance, real-time programming, real-time operating systems, typical onboard software applications, implementing of example applications, hardware support.		
Intended learning outcomes		
The students understand what the tasks of ODHS are and how they are implemented. They understand the connections and dependencies with and from other subsystems. They are able to implement and control such systems themselves.		
Courses (type, number of weekly contact hours, language – if other than German)		
V (4) + 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. 120 minutes) and approx. 6 practical exercises (approx. 4 hours each), weighted 1:1 creditable for bonus		
Allocation of places		
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Additional information		
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Workload		
240 h		
Teaching cycle		
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Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		
Bachelor' degree (1 major) Aerospace Computer Science (2015) Bachelor' degree (1 major) Aerospace Computer Science (2017) Bachelor' degree (1 major) Aerospace Computer Science (2020)		