Module title: On board data processing
Abbreviation: 10-I-BDV-092-m01

Module coordinator: holder of the Chair of Computer Science VIII
Module offered by: Institute of Computer Science

ECTS: 8
Method of grading: numerical grade
Duration: 1 semester
Module level: undergraduate
Other prerequisites: Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).

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
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment
written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.

Allocation of places
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Additional information
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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 (2009)
Bachelor' degree (1 major) Aerospace Computer Science (2011)