Module title | Abbreviation
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Spacecraft System Analysis | 10-I=SSA-182-m01

Module coordinator | Module offered by
holder of the Chair of Computer Science VII | Institute of Computer Science

ECTS | Method of grading | Only after succ. compl. of module(s)
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10 | numerical grade | --

Duration | Module level | Other prerequisites
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1 semester | graduate | --

Contents
Spacecraft system Analysis examines the design of spacecraft and launch vehicles, including the impacts of the atmosphere and the space environment on requirements and configurations. The principles and design aspects of the structure, propulsion, power, thermal, communication, and control subsystems are studied.

Intended learning outcomes
Students gain a general understanding of orbital mechanics & parameters and the subsystems of a spacecraft. This course handles the most important subsystems individually as listed in the table of contents. At the end of the course students will learn to translate mission requirements into orbit and subsystem definitions. Thermal and Mechanical qualification including testing for space is additionally covered.

Courses
(type, number of weekly contact hours, language — if other than German)
V (4) + Ü (2) + E (2)
Module taught in: English

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. 90 to 120 minutes) and field trip report (4 to 8 pages)
Language of assessment: English
creditable for bonus

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
Master's degree (1 major) Satellite Technology (2018)