### Module title
Spacecraft System Analysis

### Abbreviation
10-I=SSA-182-m01

### Module coordinator
holder of the Chair of Computer Science VII

### Module offered by
Institute of Computer Science

### ECTS
10

### Method of grading
Numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
Graduate

### Other prerequisites
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### 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 in to orbit and subsystem definitions. Thermal and Mechanical qualification including testing for space is additionally covered.

### Courses
V (4) + Ü (2) + E (2)
Module taught in: English

### Method of assessment
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)