Faculty	4 - Electrical Engineering and Computer Science
Course Title	Designing Digital Media for People with Special Needs
Number of ECTS credits	6 ECTS
Hours per week (SWS)	2 lecture + 2 laboratory + 1 supplementary exercise
Semester	Bachelor / Summer Term
Course objective	To understand the development process and design of interactive technologies for people with special needs. This class provides multiple opportunities to explore suitable technologies, design methods and basic requirements of digital technologies for people with special needs including seniors. By a practical case study, a selected aspect will be explored in detail.
Prerequisites	Interest in accessible interaction design, participation and development
Recommended reading	See specific announcements
Teaching methods	Lecture, discussion, team work, student presentations

Assessment methods	**Assignment 1**
	Each student chooses a topic and conducts an investigation. This means to study one theoretical aspect of this field or to evaluate one existing system or analyze one research project (literature and web) in detail. The investigation should be presented in class.
	
	Assignment 2
	A practical case study in teams: new or visionary developments for people with special needs and seniors (as a prototype or visualized with a video)
	• Idea, concept and critical discussion on a proposed technology or prototype
	• Design and interaction design
	• Teams present the results and prototypes of the group work including a critical discussion in the class
	• Suggestions for the design studies:
	    o Input and output systems
	    o Specific software
	    o Games
	    o Orientation systems
	    o …

Language of instruction	English
Name of lecturer	Prof. Dr. Benjamin Tannert

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Link	
Course content	- Accessibility, Design for all and adaptability - Concepts and methods of personalization and individualization, including newest approaches to adaptation etc. - Exploration of existing systems for the target group and interactive tools in order to investigate the requirements of such systems and to describe the gap in existing technologies - How to meet the needs on a physical and psychological level that really support the target group: Technologies to support the self-efficacy and autonomy - Interaction-design for people with special needs - Specific design methods (requirements analysis, expert talk, participative design methods, test methods) - Further exploration of new and expanded developments for people with special needs and seniors such as emotional computing etc. - Analysis of existing guidelines and principles for the development of accessible systems