Module name	**Automation Control**
Module coordinator/ Module coordinator	Prof. Dr. Bachmann
Qualification goals	Students learn about the design, structure and functionality of flexible automation systems from the perspective of automation technology, including selected design methods for such systems. They can apply their knowledge to the design of such systems. The event mainly conveys Professional competence 40 % Methodological competence 50 % System competence 10 % Social competence 0 %
Module contents	Today, complex automation solutions are highly automated systems that produce the highest quality with maximum performance. The focal points in their realization are: Conception of communication and networking, decentralized system design, selection of suitable techniques and technologies for implementation, design of a heterogeneous structure, control engineering mastery of complex, non-linear system structures, robot integration, statistical process analysis.
Teaching methods	Lecture 4 SWS Analysis and discussion of documented example systems, operational management of systems, seminar-style lecture
Requirements for participation	Recommended: Automation Technology, Control Engineering in the Bachelor's program
Literature/ multimedia teaching and learning programs	Lecture notes, exercise materials Documentation, functional and requirement specifications from the companies
Textbook author	
Usability	
Workload/ Total workload	Attendance time 60 h + self-study 90 h = 150 h = 5 credit points
ECTS and weighting of the grade in the overall grade	5 ECTS credits
Proof of performance	Alternative examination: Preparation of a draft concept in document form with a concluding colloquium for a given example from the subject area of automation control.
Semester	1st semester
Frequency of the offer	Every academic year in the winter semester
Duration	4 SWS
Type of course (compulsory, optional, etc.)	Compulsory elective module
Special	