

Module 6165 Mechatronical Project

1	Module number 6165	Study programme WNB	Semester 6	Offered in <input checked="" type="checkbox"/> WS <input checked="" type="checkbox"/> SS	Duration 1 semester	Module type Compulsory	Workload (h) 150	ECTS points 5
2	Courses		Teaching and learning form		Contact time		Self-study	Language
	a) Project Work		Project Work		(SWS) 3	(h) 45	(h) 105	English
3	Learning outcomes and competences After successfully completing the module, students can... <ul style="list-style-type: none"> ... design the product development process of mechatronic products holistically, using suitable methods and procedures, plan and execute the process on both a technical and non-technical level. Knowledge and understanding <ul style="list-style-type: none"> ... the systematic development process of mechatronic systems. ... confidently manage the accompanying project management, also for larger projects. ... create project documentation according to eligible scientific standards. Use, application and generation of knowledge <i>Use and transfer</i> <ul style="list-style-type: none"> ... have acquired the ability group and lead interdisciplinary teams for product design. ... are able to apply the skills acquired using the example of the product development process in complex projects. ... apply knowledge they have acquired on a specific technical problem. ... ensure by systematically designing tests and carrying them out in order to create reliable products. ... expand their specialist knowledge independently through scientific research in order to implement the assigned task. ... apply their project management skills in a more complex project. Communication and cooperation <ul style="list-style-type: none"> ... actively communicate within a group and obtain information. ... interpret mechatronics results and draw valid conclusions. ... present technical content and discuss it professionally. ... communicate and cooperate in the group in order to find adequate solutions for the task at hand. Scientific self-conception/professionalism <ul style="list-style-type: none"> ... discuss the developed solution theoretically and methodically. ... reflect and assess their own abilities in a group comparison. 							
4	Content Current project topics are defined every semester presented to the student groups as a task in the form of a requirement specification. The project topics may be initiated from industry partners. Students are assigned to projects by lottery. The students develop the specifications, schedule and work on the project as a team. Collaboration with student the other departments (e.g. WI) is desirable. The teams present their work at regular intervals and present the results in a final presentation. The entire project is documented in a written draft							
5	Participation requirements obligatory: none recommended:							
6	Forms of examination and requirements for awarding credit points Successful completion of a project task in a team with a report and presentation of the results. The module is graded.							
7	Further use of the module MTB							

8	Module manager and full-time lecturer Prof. Dr. Udo Lang
9	Literature <ul style="list-style-type: none">• Jakoby, Walter: Projektmanagement für Ingenieure – Ein praxisnahes Lehrbuch für den systematischen Projekterfolg, 4., aktualisierte u. erw. Aufl., Springer Vieweg, 2019• Heimann, Bodo u.a.: Mechatronik: Komponenten - Methoden – Beispiele, 4. Auflage, Carl Hanser Verlag, 2015
10	Last updated 11.07.2024