CURRICULUM B.ENG. ROBOTICS PART-TIME (48 MONTHS)

Semester	Modul	Kurscodes	Kursname	ECTS	
1. Semester 25 ECTS	Introduction to Robotics	DLBROIR01_E	Introduction to Robotics	5	E
	Introduction to Academic Work	DLBCSIAW01	Introduction to Academic Work	5	WB
	Mathematics: Linear Algebra	DLBDSMFLA01	Mathematics: Linear Algebra	5	E
	Scientific and technical fundamentals	DLBINGNAG01_E	Scientific and technical fundamentals	5	E
	Smart Factory I	DLBDSESF01	Smart Factory I	5	E
2. Semester 25 ECTS	Technical Drawing	DLBROTD01_E	Technical Drawing	5	E
	Production Engineering	DLBDSEAR01	Production Engineering	5	E
	Collaborative Work	DLBCSCW01	Collaborative Work	5	OA
	Mathematics: Analysis	DLBDSMFC01	Mathematics: Analysis	5	E
	Mechanics - Statics	DLBROMS01_E	Mechanics - Statics	5	E
3. Semester 25 ECTS	Electrical Engineering	DLBINGET01_E	Electrical Engineering	5	E
	Project: Design with CAD	DLBROPDCAD01_E	Project: Design with CAD	5	OPR
	Sensor Technology	DLBROST01_E	Sensor Technology	5	E
	Signals and Systems	DLBROSS01_E	Signals and Systems	5	E
	Requirements Engineering	IREN01_E	Requirements Engineering	5	E
4. Semester 25 ECTS	Mechanics - Kinematics and Dynamics	DLBROMKD01_E	Mechanics - Kinematics and Dynamics	5	E
	Intercultural and Ethical Decision-Making	DLBCSIDM01	Intercultural and Ethical Decision-Making	5	WACS
	Introduction to Programming with Python	DLBDSIPWP01	Introduction to Programming with Python	5	E
	Mechatronic Systems	DLBROMSY01_E	Mechatronic Systems	5	E
	Control Systems Engineering	DLBROCSE01_E	Control Systems Engineering	5	E
5. Semester 20 ECTS	Project: Modeling, Simulation and Control of Robots	DLBROPMSCR01_E	Project: Modeling, Simulation and Control of Robots	5	WAPR
	Introduction to the Internet of Things	DLBINGEIT01_E	Introduction to the Internet of Things	5	E
	Embedded Systems	DLBROES01_E	Embedded Systems	5	E
	Project: Robotics	DLBROPR01_E	Project: Robotics	5	OPR
6. Semester 20 ECTS	Seminar: Human-Robot Interaction	DLBROSHRI01_E	Seminar: Human-Robot Interaction	5	WARE
	Project: Applied Robotics with Robotic Platforms	DLBROPARRP01_E	Project: Applied Robotics with Robotic Platforms	5	OPR
	Seminar: Robots and Society	DLBROSRS01_E	Seminar: Robots and Society	5	WARE
	Safety of Industrial Plants and Machines	DLBROSIPM01_E	Safety of Industrial Plants and Machines	5	E
7. Semester 20 ECTS	ELECTIVE I		e.g. Industrial Robotics and Automation	10	
	ELECTIVE II		e.g. Service Robotics	10	
8. Semester 20 ECTS	ELECTIVE III		e.g. Introduction to Cognitive Robotics	10	
	Bachelorarbeit		Bachelor Thesis Colloquium	9 1	WABT PC
Total 180 ECTS	**GOAL: In order to stay on schedule, you should finish modules of about 25 Credit Points per semester!**				

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* All the modules that have been unlocked for the Online Exams can be found in CARE.

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E	Exam (monthly at study centres or anytime via the online exam*)
OA	Oral Assignment
OPR	Oral Project Report
P	Portfolio
PC	Presentation: Colloquium
WB	Workbook
WABT	Written Assessment: Bachelor Thesis
WACS	Written Assessment: Case Study
WAPR	Written Assessment: Project Report
WARE	Written Assessment: Research Essay
WAWA	Written Assessment: Written Assignment

**** ELECTIVES**
- Choose three modules

Elective Module I:
- Introduction to Cognitive Robotics
- Industrial Robotics and Automation
- Service Robotics

Elective Module II + III:
- AI Specialist
- Applied Sales
- Autonomous Driving
- Data Science and Deep Learning
- Foreign Language
- Industrial Robotics and Automation
- International Marketing and Branding
- Introduction to Cognitive Robotics
- IT project and architecture management
- IT Security
- Mobile Software Engineering
- Programming of Robotic Systems
- Python for Software Engineering
- Service Robotics
- Supply Chain Management

NOTE:
Every elective module can only be chosen once.