Course title	***Digital Failure Diagnosis***
Course code	IP 408
Module coordinator	Anja Voges, International Program
Lecturer	Dr. Alexei Konnov
Level of course	Bachelor
Recommended prerequisites	IP 402 *"Reliability Engineering – Basic Concepts"*
Type of course	Lecture
Weekly lecture hours (SWS)	2
ECTS credits	2
Workload	In total 60 h, 30 h course attendance, 30 h self-study
Assessment (grading; pass/fail)	graded
Regular cycle	Each semester
Language of instruction	English
Contents:	This course focuses on the issues and solutions for information transmission, communication channels and electrical circuits. The students will get all the necessary theoretical background for: – Information / Communication – Binary self-correcting codes – Electrical circuits / Failure detection and isolation – Minimal and necessary tests – PLA Practical exercises and real case studies are included.
Learning outcome (competencies):	By finishing this course, you will: – understand the principles of information protection in communication channels

	– understand the principles of failure detection and isolation in electrical circuits – apply the knowledge in engineering of the digital control systems
Teaching methods	☒Lecture ☒Group work ☒Exercises ☐Simulation ☐Video feedback ☐Others: Seminar
Assessment methods	Written Exam
Recommended reading	– Lesson script – Class recordings
Additional information	