Module:	**Colored Petri Nets; Theory and applications**
Lecturer:	Assoc-Prof. Dr. Alexander Norta
Language:	English
Teaching Method:	Lecture and practical exercise
Credit Points:	1 ECTS
Attendance requirements:	Basics in mathematics and computer science
Goals / Skill:	This lecture presents Coloured Petri Nets (CPN) as a language for the modeling and validation of concurrent and distributed systems and other systems in which concurrency plays a major role. The students get an introduction to the constructs of the CPN modeling language. The goal is to present analysis methods and provide a comprehensive road map to the practical use of CPN.
Detailed Content:	1. Basic Concepts 2. Hierarchical Coloured Petri Nets 3. State spaces and verification 4. Timed Coloured Petri Nets 5. Behaviour visualisation 6. Industrial case studies
Media Used:	Electronic Presentation, Blackboard Illustrations, Practical Demonstrations, Lab Exercises by the students.
Literature:	• Kurt Jensen: Coloured Petri Nets – Basic Concepts, Analysis Methods and Practical Use (1992-1997) • Kurt Jensen, Lars M. Kristensen: Coloured Petri Nets (Springer, 2009)
Suggested Reading before the start of the summer school:	• Kurt Jensen, Lars M. Kristensen, L. Wells: Coloured Petri Nets and CNP Tools for modelling and validation of concurrent systems (Int. J. Softw. Tools Technol. Trasfer, 2007, 9:213-254)