individualized production | RWTH AACHEN UNIVERSITY

Masterstudiengang Construction & Robotics an der RWTH Aachen

Module	CP	Summer/Winter	Language
Compulsory Modules			
Construction Robotics Lecture Series I	5	w	English
Construction Robotics Lecture Series II	5	s	English
Elective Compulsory Modules			
Innovation and Production Management			
Managing the Innovation Process: Online Format	5	s	English
Industrial Engineering	5	w	English
Principles of Innovation, Entrepreneurship and Marketing: The StreetScooter Case	5	w	English
Strategic Technology Management	5	s	English
Basics of Other Disciplines			
Architecture			
Individualized Construction	3	s/w	English
Visual Programming Basics	3	s/w	English
SGD-CAAD	3	w	English
Advanced Fundamentals of Building Information Modelling	3	s	English
Civil Engineering			
Sustainability Assessment - Methods and Tools	4	s	English
Life Cycle Assessment - Consolidation	5	w	English
Pavement Dynamics	6	w	English
Timber Structures I	4	w	English
Computer Science			
Basic Techniques in Computer Graphics	6	w	English/German
Embedded Systems	6	s	English
Virtual Reality	6	w	English
Advanced Topics of Virtual Reality	6	s	English
Artificial Intelligence	6	w	English
Computer Vision	6	s	English
Machine Learning	6	w	English
Software Engineering	6	w	English
Model-Based Systems Engineering	6	w	English/German
Mechanical Engineering			
Manufacturing Technology I	5	w	English
Mechatronics and Control Techniques for Production Plants	6	w	English
Factory Planning	6	s	English
Robotic Systems	5	w	English

Joining Technology I - Basic Course	5	s	German
Additive Manufacturing	6	w	English/German
Additive Manufacturing 2	6	s	German
Advanced Courses from Own Discipline			
Architecture			
course offer changes every semester			English
Civil Engineering			
Structural Dynamics	8	s	English
Building Information Modeling	7	w	English
Building Performance Simulation	6	s	English
Plates and Shells	8	w	English
Advanced Structural Analysis	8	w	English
Mechanics of Materials	8	w	English
Mobility Research and Transport Modeling	6	s	English
Computer Science			
Object-Oriented Software Construction	6	w	English
Computer Vision 2	6	w	English
Advanced Machine Learning	6	s	English
Advanced Topics in Signal Processing and Communication	4	w	English
Robotics and Man Machine Interaction 1	4	w	English/German
Simulation of Robotic Systems, Sensors and Environment	5	w	English
Acoustic Virtual Reality	5	w	English
Mechanical Engineering			
Simulation Techniques in Manufacturing Technology	6	w	English
Manufacturing Technology II	5	s	English
Advanced Robotic Kinematics and Dynamics	5	w	English
Multibody Dynamics	6	s	English
Artificial Intelligence and Data Analytics for Engineers	5	s	English
Advanced Software Engineering	5	s/w	English
Quality Management	5	w	German
Robotic Sensor Systems	5	w	English
Production Metrology	5	s	English
Fundamentals of Fluid Power	6	w	English
Integrated Projects			
Design Driven Project	12	s/w	English
Digital and Soft Skills for Interdisciplinary Project Development	3	s/w	English
Research Driven Project	12	s/w	English
Digital and Soft Scientific Skills for Interdisciplinary Research for Research Driven Project	3	s/w	English
Prototyping Project	12	s/w	English
Digital and Scientific Skills for Interdisciplinary Research for Prototyping Project	3	s/w	English