

# Structure of the Master of Science in Electrical Engineering and Information technology

The structure of the Master of Science in Electrical Engineering and Information technology is identical to the International Master except for the module "Industrial Project". The prerequisites for this master program are described in the BBPO.

This master program starts in the winter semester as well as in the summer semester.

|                                     | Winter Semester  | Summer Semester   | Semester 3                              |  |
|-------------------------------------|--|---|---|--|
| All majors                          | System Design (M01 - compulsory)   | Technical Management (M02 - compulsory)   | Master Thesis (M04 - compulsory / 30CP) |  |
| Major Automation                    | Advanced Automation (MA01 - compulsory)  | Advanced Feedback Control (MA03 - compulsory)   |   |  |
|                                     | Advanced Information technology (MA02 - compulsory)                                  | Advanced Robotics (MA04 - compulsory)   |   |  |
|                                     | Autonomous Systems (MA05 - elective)   | Information and simulation systems in industrial development and automation (MA06 - elective) |   |  |
| Major Communication                 | Advanced Modulation and Coding (MC01 - compulsory)                                   | Digital Signal Processing (MC03 - compulsory)   |   |  |
|                                     | Information Networks (MC02 - compulsory)   | Microwave Components and Systems (MC04 - compulsory)  |   |  |
|                                     | Mobile and Satellite Communications (MC05 - elective)                                | Optical Communications (MC06 - elective)  |   |  |
| Major Embedded and Microelectronics | Complex Digital Architectures (MM01 - compulsory)                                    | Microelectronic Systems (MM03 - compulsory)   |   |  |
|                                     | Advanced Embedded Systems (MM02 - compulsory)  | Design and Test of Microelectronic Systems (MM04 - compulsory)                                |   |  |
|                                     | Signal Processing Hardware (MM05 - elective)   | CMOS analog circuits (MM06 - elective)  |   |  |
| Major Power                         | Advanced High Voltage Technology and Theory of Electrical Fields (ME01 - compulsory) | Control of electrical Drives & E-Mobility (ME03 - compulsory)                                 |   |  |
|                                     | Power Systems and Control Technology (ME02 - compulsory)                             | Power- Electronics & Switching Power Supply (ME04 - compulsory)                               |   |  |
|                                     | Renewable Energy Systems (ME05 - elective)   | Smart-Grids (ME06 - elective)   |   |  |
|                                     | *unless otherwise noted, all modules have 7.5 CP                                     |   |   |  |