

## FACULTY OF ELECTRICAL AND ELECTRONICS ENGINEERING

- COURSES of the DEPARTMENT OF AUTOMATION
- COURSES of the DEPARTMENT OF ELECTRONICS ENGINEERING
- COURSES of the DEPARTMENT OF ELECTRIC POWER SYSTEMS
- COURSES of the PROJECTS and PRACTICE

### DEPARTMENT OF AUTOMATION

| Course code                     | Course title                                   | ECTS Credits | Semester |
|---------------------------------|--|--------------|----------|
| <b>Bachelor's level courses</b> |  |              |          |
| <a href="#">T125B003</a>        | Automatic Control of Electromechanical Systems | 6            | autumn   |
| <a href="#">T125B117</a>        | Computational Intelligence Methods             | 6            | autumn   |
| <a href="#">T125B123</a>        | Automation Devices and Systems                 | 9            | autumn   |
| <a href="#">T125B149</a>        | Robot End Effectors 1                          | 6            | autumn   |
| <a href="#">T125B152</a>        | Mobile Robots                                  | 9            | autumn   |
| <a href="#">T125B361</a>        | Automatic Control Theory                       | 6            | autumn   |
| <a href="#">T125B116</a>        | Image Processing and Recognition               | 6            | autumn   |
| <a href="#">T125B167</a>        | Intelligent Automation Systems and Devices     | 6            | autumn   |
| <a href="#">T190B302</a>        | Electric Drives                                | 6            | autumn   |
| <a href="#">T125B155</a>        | Fundamentals of Intelligent Control Systems    | 6            | autumn   |
| <a href="#">T125B019</a>        | Software for Engineering Calculations          | 6            | autumn   |
| <b>Master's level courses</b>   |  |              |          |
| <a href="#">T125M003</a>        | Systems Modelling and Identification           | 6            | autumn   |
| <a href="#">T125M123</a>        | Programmable Logical Controllers               | 6            | autumn   |
| <a href="#">T125M125</a>        | Robotics                                       | 6            | autumn   |
| <a href="#">T125M165</a>        | Digital Control Systems                        | 6            | autumn   |
| <a href="#">T125M009</a>        | Signal Processing in Control Systems           | 6            | autumn   |
| <a href="#">T125M161</a>        | Information Technologies for Control Systems   | 6            | autumn   |
| <a href="#">T125M119</a>        | Programmable Process Control Systems           | 6            | autumn   |
| <a href="#">T125M105</a>        | Process Optimization and Optimal Control       | 6            | autumn   |

### DEPARTMENT OF ELECTRONICS ENGINEERING

| Course code                     | Course title                             | ECTS Credits | Semester |
|---------------------------------|--|--------------|----------|
| <b>Bachelor's level courses</b> |  |              |          |
| <a href="#">T110B401</a>        | Basics of Measurements and Metrology     | 6            | autumn   |
| <a href="#">T121B201</a>        | Signals and Systems 1                    | 6            | autumn   |
| <a href="#">T170B121</a>        | Programming of Electronic Systems        | 6            | autumn   |
| <a href="#">T170B402</a>        | Sensors                                  | 6            | autumn   |
| <a href="#">T170B202</a>        | Electronics                              | 6            | autumn   |
| <b>Master's level courses</b>   |  |              |          |
| <a href="#">B140M008</a>        | Methodology of Biomedical Engineering    | 6            | autumn   |
| <a href="#">B140M011</a>        | Biophysics                               | 6            | autumn   |
| <a href="#">T110M007</a>        | Inovative Measuring Systems              | 6            | autumn   |
| <a href="#">T121M100</a>        | Electromagnetic Compatibility            | 6            | autumn   |
| <a href="#">T121M501</a>        | Digital Signal Processing                | 6            | autumn   |
| <a href="#">T170M026</a>        | Experiment Methodology and Planning      | 6            | autumn   |
| <a href="#">T111M100</a>        | Biomedical Image Processing and Analysis | 6            | autumn   |
| <a href="#">B115M001</a>        | Experimental Biomechanics                | 6            | autumn   |

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|--------------------------|--|---|--------|
| <a href="#">B470M101</a> | Systems of Human Physiology                            | 6 | autumn |
| <a href="#">T170M100</a> | Electronics Projects Management                        | 6 | autumn |
| <a href="#">T170M513</a> | Reliability and Certification of Electronic Devices    | 6 | autumn |
| <a href="#">T170M014</a> | Testing of Electronic Systems                          | 6 | autumn |
| <a href="#">T170M613</a> | Multiphysics Modelling for Electronics Design          | 6 | autumn |
| <a href="#">B140M107</a> | Systems of Human Physiology, Digital Signal Processing | 6 | autumn |

## DEPARTMENT OF ELECTRIC POWER SYSTEMS

| Course code                     | Course title   | ECTS Credits | Semester |
|---------------------------------|--|--------------|----------|
| <b>Bachelor's level courses</b> |  |              |          |
| <a href="#">T140B011</a>        | Power Transmission   | 6            | autumn   |
| <a href="#">T140B125</a>        | Smart Electric Power Systems                               | 6            | autumn   |
| <a href="#">T140B128</a>        | Electric Power Economics and Market                        | 6            | autumn   |
| <a href="#">T140B102</a>        | Heat and Mass Transfer                                     | 6            | autumn   |
| <a href="#">T190B392</a>        | Electromagnetic Field                                      | 3            | autumn   |
| <a href="#">T190B015</a>        | Analysis of Electric Circuits 1                            | 6            | autumn   |
| <a href="#">T500B002</a>        | Human Safety   | 3            | autumn   |
| <a href="#">T200B144</a>        | Geothermal Energy and Heat Pumps                           | 6            | autumn   |
| <b>Master's level courses</b>   |  |              |          |
| <a href="#">B140M164</a>        | Electronic Medical Instrumentation                         | 6            | autumn   |
| <a href="#">P176M001</a>        | Artificial Intelligence in Smart Grids                     | 6            | autumn   |
| <a href="#">T110M112</a>        | Advanced Sensors and Condition Monitoring                  | 6            | autumn   |
| <a href="#">T140M100</a>        | Electrical Equipment Testing and Fault Diagnostics Methods | 6            | autumn   |
| <a href="#">T140M116</a>        | Electric Power Systems                                     | 6            | autumn   |
| <a href="#">T140M163</a>        | Reliability and Quality of Power Systems                   | 6            | autumn   |
| <a href="#">T190M100</a>        | Engineering Electrodynamics                                | 6            | autumn   |
| <a href="#">T190M108</a>        | Power System Dynamics and Stability                        | 6            | autumn   |

## PROJECT and PRACTICE\*

| Course code                     | Course title        | ECTS Credits | Semester      |
|---------------------------------|---------------------|--------------|---------------|
| <b>Bachelor's level courses</b> |                     |              |               |
| <a href="#">PR00B143</a>        | Additional Practice | 12           | autumn/spring |
| <a href="#">PR00B203</a>        | Additional Practice | 18           | autumn/spring |
| <a href="#">PR00B144</a>        | Additional Practice | 24           | autumn/spring |
| <a href="#">PR00B140</a>        | Project             | 12           | autumn/spring |
| <a href="#">PR00B141</a>        | Project             | 18           | autumn/spring |
| <a href="#">PR00B113</a>        | Project             | 24           | autumn/spring |
| <b>Master's level courses</b>   |                     |              |               |
| <a href="#">PR00M100</a>        | Additional Practice | 12           | autumn/spring |
| <a href="#">PR00M116</a>        | Additional Practice | 18           | autumn/spring |
| <a href="#">PR00M114</a>        | Project             | 18           | autumn/spring |
| <a href="#">PR00M115</a>        | Project             | 24           | autumn/spring |

\*it is necessary to coordinate with the Faculty of Electrical and Electronics Engineering before choosing a practice or project module, subject and supervisor.