

## **Mechatronic Systems Lab**

| Course number           | 5664   |
|-------------------------|--|
| Hours per week:         | (2 practice session)   |
| ECTS:                   | 3  |
| Scheduled:              | Winter Term  |
| Format:                 | Lab class including team work  |
| Examination:            | Presentation of Lab results - Course will be graded: passed/not passed   |
| Lecturer:               | Prof. DrIng. Alexander Czinki  |
| Objectives:             | All participants are enabled to develop mechatronic systems using<br>various different components, such as controllers sensors and<br>actuators. The main focus of this class is set on the practical<br>realisation/control of the above mentioned systems. |
| Contents:               | Structure, functionality and programming of microcontrollers,<br>mathematical description and simulation of mechatronic systems,<br>computer-based tools for the operation and control of mechatronics<br>systems.   |
| Prerequisites:          | Basic knowledge of C computer language   |
| Recommended<br>Reading: | Getting started with Labview, www.ni.com<br>MATLAB and Simulink for Engineers, Agam Kumar Tyagi, Oxford Higher<br>Education  |