**Mechatronic elements (ECTS credits: 6)**

Language: the course is offered in English, Serbian and Hungarian.

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**Course description:**

Through the course, students gradually get acquainted with the definition of required input and output signals, with the commissioning of sensors and actuators based on technical documentation and with practical work with measuring instruments.

The course would cover the following topics, both as lectures and exercises:

1. Basic concepts from metrology,
2. Location of sensors and actuators in automatic control systems,
3. Basics of sensor technology,
4. Technical characteristics of sensors,
5. Measuring transducers,
6. Sensors of physical quantities,
7. Electrical, nmechanical and fluid-mechanical actuators.

**Aims:**

* to introduce the elements of the measuring and control circuit,
* to introduce the principle of operation of sensors of physical quantities,
* to introduce the principle of operation of the actuator (electrical and fluid-mechanical).