**DESCRIPTION OF A STUDY COURSE – SYLLABUS**

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| **Title of a course** | **Automation of Facilities** | | | | |
| **Study programme** | **Professional undergraduate study Telematics** | | | | |
| **Status of a course** | Elective | | | | |
| **Year of study** | 3. | **Semester** | W | **ECTS credits** | 5 |
| **Goals of a course** | | | | | |
| Introduce students to the practical aspects of building automation, with an emphasis on business and other commercial buildings and apartments and houses. | | | | | |
| **Conditions for enrolling course** | | | | | |
| No conditions | | | | | |
| **Learning outcomes on a level of a study programme which includes course** | | | | | |
| Outcome 7: Describe the development and implementation of communications systems, switching systems, and local and broadband networks.  Outcome 8: Design and implement communications and computer networks, as well as network services.  Outcome 9: Explain the basic methods of automatic system control and apply them to telematics systems. | | | | | |
| **Expected learning outcomes on a level of a course** | | | | | |
| 1. Learn the basic principles of facility management and the basic elements of energy management technology in building design and construction 2. Apply specific communication protocols in building design and construction, and select the right equipment for a simple project task 3. In a team, wire and connect the KNX hardware elements of a practical problem exercise. 4. In a team, create the assigned KNX program of a practical problem exercise. | | | | | |
| **Content of a course** | | | | | |
| Introduction to Facility Management: structures, definitions, functions; basics of building automation; requirements in housing and specified construction; applications; construction and infrastructural solutions of building automation; working groups and managing groups.  Technical components of building automation: machine cluster; managing appliances; appliances networking; wired and wireless networking; Homebus- systems and standards ( EIB, Lon, EHS, Konnex); remote control techniques; Gateway techniques; Open System Gateway Architecture (OSGi) | | | | | |