Politehnica University Timișoara
Faculty of Engineering in Hunedoara

Bachelor's Degree Programme: INTERNET OF THINGS ENGINEERING
Field of Study: COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

- The mission of the **Internet of Things Engineering** study programme is aligned with the general mission of Politehnica University Timișoara and, respectively, of the Faculty of Engineering in Hunedoara, namely to train engineers capable of designing, developing and integrating intelligent systems connected to the Internet (IoT), using modern communication technologies, sensors, artificial intelligence and cybersecurity, for applications in industry, smart cities, healthcare and the environment, across all production sectors. The study programme aims to ensure that future graduates are able to carry out their professional activities in any engineering field where the use of computing technology is applicable (computer-aided design, software design and development, industrial automation, etc.). Research Mission. The mission of the study programme in terms of scientific research is aligned with the university's general mission of generating and transferring knowledge to society through fundamental and applied scientific research, which is carried out within the faculty's departments. Furthermore, the mission of this study programme is to understand concepts, principles and theories of electrical engineering and computer engineering, to be able to prepare technical projects for software systems, and to use information technology techniques effectively for this purpose. In addition, the mission of the programme focuses on developing competencies for conducting studies and developing prototypes and innovative solutions in the field of intelligent systems, the Internet of Things and applied artificial intelligence, in line with the requirements of the academic and industrial environment.

The objectives of the Internet of Things Engineering study programme include:

-training specialists in technical and techno-economic fields at national and European level, particularly in the IT field;

-developing creative thinking and analytical and synthesis skills;

-complementing specialised training with interdisciplinary economic training;

-aligning graduates' knowledge and skills with the requirements of the job market;

-acquiring theoretical and practical competencies that enable graduates to pursue postgraduate or master's degree programmes.

The **Internet of Things Engineering** study programme, offered as a bachelor's degree level, is offered by the Faculty of Engineering in Hunedoara since the 2026–2027 academic year. The structure of the bachelor's degree programme is aligned with the National Qualifications Framework for Higher Education, in accordance with RNCIS, and provides the competencies and skills required by employers, including: applying fundamental concepts in computer science and information technology, modelling and using modern measurement systems based on data acquisition systems, as well as the ability to process the acquired data, modelling, simulation and automatic control of processes, designing and developing systems based on programmable logic controllers, numerical control systems and intelligent robots, knowledge of advanced automation technologies (fuzzy logic, neural networks), and programming and developing dedicated industrial automation and control systems based on microcontrollers and digital signal processors.