Curriculum:

The curriculum of the *Mechatronics* specialisation contains subjects such as:

Computer aided graphics

Digital electronics

Programming and using computers

Programmable controllers

Microcontrollers

Artificial intelligence

The basics of robotics

Control systems in robotics

Important

The didactic activities (courses) for the *MECHATRONICS* and *ROBOTICS* specialisations are shared up until the last semester of the 2^{nd} year.





Additional information:

Admission contest based on file (type II), organised in two sessions: summer (June 2021) / autumn (September 2021)

Number of places:

60 – Mechatronics (30 tuition fee places)

30 – Mechatronics with English as language of instruction (17 tuition fee places)

Registration period:

5th-18th of July 2021 / 6th-11th of September 2021

Assessing linguistic competences (only for the Mechatronics specialisation with English as language of instruction):

21th July 2021/13th September 2021

Results:

22th July 2021 / 14th September 2021

Place confirmation:

23th-24th, 26th-27th July 2021 / 15th-18th September

2021

Final results:

28th July 2021 / 20th September 2021

- Web: <u>http://inginerie.ulbsibiu.ro/</u>
- Tel: 0269 216062 int. 1450-1451



facultatea de Inginerie

THE FACULTY OF ENGINEERING

Organises:

The ENGINEERING study programme (4 years)

The field

MECHATRONICS AND ROBOTICS

For the specialisations:

MECHATRONICS and

MECHATRONICS (with English as language of instruction)

* The photographs in this flyer present the equipment in the laboratories of the specialisation





Keywords:

RobotsArtificial intelligenceIntegrated systemsSoftware and hardwareSensors and sensory systemsAutomation control systems

The field goals:

An internationally accepted definition of *Mechatronics* states that it represents the creative combination of precision mechanical engineering with the electronic equipment of action and command, with the engineering of automation control systems and with computer and software technologies.

The main goal of the *Mechatronics and Robotics* field is to train specialists in designing and making complex integrated systems, comprising precision mechanic components, electronic systems and program and control software components.

The specialisation goals:

The Mechatronics specialisation comprises subjects that study mechanic and electronic engineering, as well as hardware and software computer system engineering.

The goal of this specialisation is to train specialists in designing and manufacturing mechatronic integrated systems used in robotics, automobiles, precision equipment manufacturing industry, as well as in other industry sectors.

Graduate's competences:

The graduate will be able to solve problems regarding:

- the calculus and computer aided design of complex mechanic systems;
- the calculus and design of command, action and control electronic systems;
- the kinematic and dynamic design of robots; programming and controlling robots;





- the design, program and exploitation of integrated control systems;
- the design and making of sensors and complex sensory systems;
- the implementation of artificial intelligence in processing systems and equipment and in the automotive industry;
- the design and exploitation of electrical, hydraulic and pneumatic automation and actioning systems;
- consulting and developing technical expertise;
- practical research in the field of mechatronics, as well as in other related fields;
- management and marketing.



FACULTATEA DE Inginerie