

Automation and Applied Informatics

1. Admission Requirements:

• Prerequisites:

- Successful completion of high school studies and obtaining a baccalaureate degree or equivalent.
- Non-EU Citizens - Contingent upon the presentation of the Graduation Certificate from the preparatory year (excluding those who have completed their previous studies in the Romanian language) and obtaining the Letter of Acceptance issued by the Ministry of Education.
- EU Citizens + Swiss Confederation - Contingent upon the presentation of the Graduation Certificate from the preparatory year (excluding those who have completed their previous studies in the Romanian language) and the recognition of their studies by the National Centre for Recognition and Equivalence of Diplomas (CNRED).

• Entrance Exams:

- The admission average of registered candidates is made up of: average of the baccalaureate exam - weight 100%.
- Admission to undergraduate studies is strictly in descending order of the general admission averages obtained by the candidates respecting the capacity of tuition for each study program

2. Degree Levels:

- Bachelor's Degree: 4-year program.

3. Curriculum:

• Core Courses:

Mandatory courses that all students in the program must take:

- Computer Aided Graphics.
- Computer Programming and Programming Language.
- Analysis and Synthesis of Digital Devices.
- Object Oriented Programming.
- Databases.
- Computer Architecture.
- Theory of Systems.
- Operating Systems.
- Measurements and Transducers.
- Robotics.
- Computer Networks.

- Microprocessor Systems.
- Automatic Systems Engineering.
- PLCs and Microprogramming.
- Dynamic Systems with Distributed Events.
- Modelling, Identification and Simulation.
- Assisted Design of Driving Systems.
- Web Technologies.

• **Electives:**

- Distributed Systems of Acquisition, Monitoring and Control.
- Java Software Engineer.
- Reliability and Diagnosis.
- Artificial Intelligence.
- Security of Computing Systems.
- Intelligent Management Processes.
- Human-Computer Interfaces.
- Adaptive and Robust Systems.
- Real-time Programming Applications.
- Digital Graphics.
- Management of Flexible Manufacturing Structures.

• **Major/Concentration:**

- Use of Knowledge-Based Computer Systems; Automatic Control Systems; Robotics Fundamentals; Electrical Engineering; Electronic Engineering; Computer Systems Architecture; Data Acquisition; Computer Systems Programming for Data Storage, Manipulation and Representation; Computer Systems; Microprocessor Systems Programming; Signal Processing; Industrial Systems; Intelligent Control; System Design, Development, and Implementation.

• **General Education Requirements:**

- Successful completion of the mandatory courses, seminars and labs, completion of the three internships and the bachelor thesis.

4. **Credits:**

- Each semester carries a weight of 30 ECTS, with a total of 240 ECTS required for graduation.

5. **Internships and Practical Experience:**

- Students have the opportunity to carry out their internship in companies and enterprises in Dambovita county and its surroundings, as well as in the teaching and research laboratories of the faculty or the Institute for Scientific and Multidisciplinary Research.

6. **Research Requirements:**

- Students carry out research activities in order to prepare their bachelor thesis.

7. Academic Advising:

- A supervising teacher is assigned to each year of study and partially assisted activities are coordinated by supervising teachers.
- The bachelor thesis is also supervised by a scientific supervisor.

8. Extracurricular Activities:

- Students have the option to participate in clubs, organizations, or extracurricular activities related to their field of study or personal interests.

9. Examinations:

- The courses will span 14 weeks during each semester and conclude with oral, written, or practical examinations. Successful completion of these exams is mandatory to earn study credits.

10. Thesis Defense:

The prerequisites for presenting a bachelor thesis before a committee include:

- Attainment of 240 ECTS credits throughout the program.
- Obtaining the approval of the scientific supervisor to present the bachelor thesis.

11. Graduation Requirements:

- Graduation necessitates the fulfilment of all program requirements, encompassing the completion of the required credit hours and the successful completion of the bachelor thesis.

12. Degree Awarding:

- Bachelor's Degree (Engineer) in Automation and Applied Informatics.