



IUT
de **nîmes**

ELECTRICAL ENGINEERING AND INDUSTRIAL COMPUTING



BUT GEII
BEng EEIC

IUT-NIMES.FR

DEGREE

- Three-year integrated course
- 2 specialisation options starting in 2nd year
- Skills-based approach : 3 core professional skills developed throughout the curriculum and a further specific skill for each specialisation option
- Emphasis on training structured around immersion in professional situations

OBJECTIVES

Focussing on innovation and technological development, the BEng program in Electrical Engineering and Industrial Computing (EEIC) trains intermediate-level professionals capable of setting up and managing electrical installations, designing, developing, programming, and maintaining both fixed and embedded electronic boards (in fields such as automotive, avionics, robotics sectors, etc.) as well as automating and controlling industrial processes.

Graduates will possess strong professional skills and a broad technological foundation and will also be familiar with cross-disciplinary aspects of the profession, such as team and project management. The program is designed to equip students with the knowledge and abilities necessary to meet the challenges of sustainable development and the rapidly evolving career demands in the vast fields of EEIC.

ORGANIZATION

- Start date : September
- Duration : Three years
- Total hours : 2,000 hours
- Supervised project hours : 600 hours
- Internship : Minimum of 22 weeks over the three years
- Work-study option : Available from the first year
- Organisation of work-study program : 2 or 3 weeks at the UIT / 2 or 3 weeks in the workplace
- Assessment method : Continuous assessment

CORE CURRICULUM // *From the first to the third year*

KEY SKILLS

- Design the Electrical and Industrial Computing (EEIC) components of a system
- Verify the Electrical and Industrial Computing (EEIC) Components of a System
- Maintain a system in operational condition

MAIN SUBJECTS

- Electricity / Electronics
- Automation
- Energy / Electrotechnics
- Industrial Computing
- Design and production of specifications
- Project management
- Communication & Expression
- Foreign Language (English)
- Mathematics

2 SPECIALISATION OPTIONS // *Second and third years*

Automation and industrial computing path

Industry 4.0 option* : training in the digitisation of industrial production lines (robots, conveyors, cobots, etc.). Integrating a control and monitoring system into an industrial process: installation and programming of automated systems for the operation and supervision of industrial processes.

Railway Signalling Option* (work-study only) : trains professionals to work in infrastructure management offices and urban network operations.

Covers system architecture, station and line principles, technologies, design and implementation, the national rail network, industrial sidings, and urban networks.

*These options are available from the first year.

Electricity and energy management

Installing all or part of an on-site energy production, conversion and management system: studying, testing, implementing and monitoring the production of energy conversion systems.

CAREER OPPORTUNITIES

PROFESSIONS

- Automation Engineer / Robotics Engineer
- Electronics Technician
- Electrotechnician
- Project Manager
- Operations Manager
- IT and Network Technician
- Electrical Maintenance Technician

SECTORS

- Energy Production and Management
- Electronics Industry
- Transportation and Automotive industry
- Aerospace and Defence
- Construction
- Healthcare
- Agri-Food Industry
- Manufacturing and Processing Industries

FURTHER STUDIES

Students wishing to specialise or broaden their training can apply to :

- Engineering schools
- Master's degree courses



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