



# Undergraduate Technological Degree

## Electrical Engineering & Industrial Computing

SPECIALIZED UNDERGRADUATE TECHNOLOGY DEGREE (UTD) IN EEIC  
 [FRENCH: DUT- DIPLOME UNIVERSITAIRE DE TECHNOLOGIE]

UNIVERSITY INSTITUTE OF TECHNOLOGY

### General presentation of the program

The purpose for the study program for Electrical Engineering and Industrial Computing (EEIC) is to **prepare** a student in 4 semesters to **work as an advanced technician** while offering an opportunity to **continue his/her education** according to a personal and professional development plan.

### The technical and professional skills targeted:

*Work skills targeted by the UTD EEIC*

The jobs that a UTD EEIC graduate can look forward to are varied. The tasks that technicians are responsible for include the following although they are not limited to these:

- The **installation, development, maintenance and reparation** of equipment,
- The **analysis** or the **establishment** of a specifications sheet,
- The development or selection of **technical solutions** (both hardware and software) and products by integrating the reliability and quality specifications,
- The **coordination** of a small team,
- **Representing** the firm to clients.
- The **management** of medium scale projects,

The optimum environment for a technician to grow in professionally is an open environment that emphasizes **communication**, either orally or in writing, using different media, and which includes a **foreign language**; comfort with

written and oral technical communication in **English** is also a required skill.

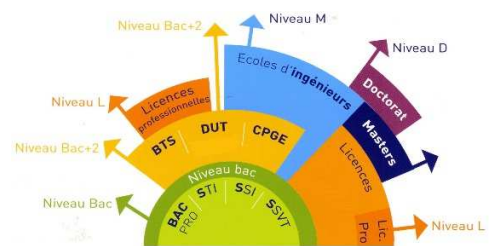
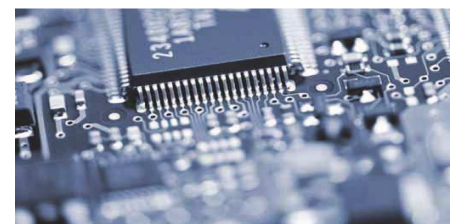
#### *Technological skills of an EEIC graduate*

The know-how and technological skills of an EEIC graduate may be applied in a **very wide range of applications** covering the following fields:

- Electronics and telecommunications,
- The electronics of energy distribution, conversion and generation,
- Computing for industrial systems,
- Automated systems and local networks groups.

An EEIC graduate is able to analyze and to participate in the **conception of systems or electrical accessories** through active use of the **digital, analog and power electronics** used in Electrical Engineering, automation, industrial or networks computing, via:

- a **good understanding** of Computer-aided design (CAD), measurement techniques and tools,
- the capacity to **design** (for both software and hardware) data input and processing systems, detection and signal transmission systems (up to high and hyper frequencies),
- in the field of automation, the graduate shall **master modeling and system architecture**; with the capacity to **implement solutions** for data transmission between systems and local networks,
- the capacity to **define** and to **operate power electronics equipment and related systems**, to generate energy or set-up automation.



The figure here above shows the possible plans offered through French higher education institutions or in a course of study which is equivalent to the sequence, Bachelor, Master, PhD (BMP).

(Source : Fédération des Industries Électriques, Électroniques et de Communication)

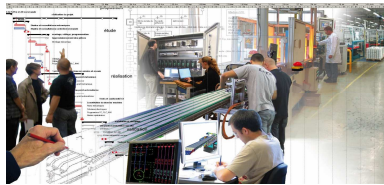


# Jobs and sectors of the labor market

The traditional work sectors are **electricity and electronics, electrical accessories and instruments, the production and transport of energy, telecommunication, manufacturing and processing industries**. They have grown thanks to the multiplication of applications for electricity and computers.

Given the widespread uses of electronics, electrical engineering and industrial computing, the skills provided to EEIC graduates are sought in very diverse fields:

- ➔ Aeronautics and Space Engineering,
- ➔ Microelectronics industry,
- ➔ Health,
- ➔ Transportation and automotive sectors,
- ➔ Food processing and agro-industries,
- ➔ Computer and communication technology.



## JOB CATEGORIES

Electronics technician, automation technician or maintenance technician are traditional job categories which cover a large range of more specific job titles: methods technician, research manager, test manager, manufacturing team manager, maintenance coordinator, developer, production / design engineering,

automation electronics technician, process specialist, industrial computing, etc.

In the microelectronics sector, the jobs awaiting an EEIC graduate are mainly located in the area of design: design itself as well as product engineering, characterization and quality control.

# Industry Internship

The internship in industry lasts for **10 weeks** minimum and is conceived to familiarize the student with real industry.

It occurs, preferably, **during the fourth semester** and its organization is flexible in order to include particular variants (international exchanges, an internship training period...). The internship is followed-up by visits of the departmental staff to the internship work place.



# Opportunities abroad

Learning a foreign language especially English helps the student to gain greater **job mobility** both within and outside the European space.

**English is a real necessity** for UTD EEIC graduates both in the exercise of their professional as well as their personal lives. The main objective of UDT learning is to provide additional learning in the four language skills areas in order to reach a level which is compatible with the **B1 reference level** defined by the Council of Europe (called threshold levels).

## FOR FURTHER ENQUIRIES

PLEASE GO AND VISIT OUR WEBSITES:  
<http://www.iutmontp.univ-montp2.fr/>  
<http://www.iutgeii.univ-montp2.fr/>

PLEASE CONTACT OUR INTERNATIONAL COORDINATORS :  
-Marie-Claude ARTAUD-GILLET  
[marie-claude.artaud-gillet@umontpellier.fr](mailto:marie-claude.artaud-gillet@umontpellier.fr)  
-Eva LEGRAIS [eva.legrais@umontpellier.fr](mailto:eva.legrais@umontpellier.fr)

