



## BEngTech in Electronics and Communications

### Programme Description

This programme prepares students for careers in Electronic and Communications Engineering in areas such as design support, development and production. The programme has a particular focus on Communications Engineering, particularly in the latter years.

Communications technology is one of the most sophisticated and rapidly changing application areas of electronics. It now pervades the daily lives of every person through mass communication networks, as well as person-to-person communications based on fixed and wireless networks. A good example is the Internet, which has undergone explosive growth in the last few years. Communications also now involves a wide range of information, including data such as voice, multimedia and video.



### Entry Requirements

A pass in five subjects in the Irish Leaving Certificate examination, one of which must be English or Irish, with at least grade C3 in ordinary level Mathematics, or a qualification which the Institute deems to be equivalent.

### Duration

Three years full-time. Higher Certificate level after two years.

### Award

Bachelor of Engineering Technology (Electronics and Communications), of the Dublin Institute of Technology  
Students also have the option of graduating at higher certificate level after two years.

### Career Opportunities

Graduates of this programme can pursue a highly satisfying, well-paid career path in a range of areas of employment. These include working as an engineer, as part of a design team or developing sophisticated test systems. After gaining some experience there are also middle management opportunities. This programme will find employment for our graduates in a wide range of industries such as electronics, communications, pharmaceuticals, and other related areas.

### Progression

Graduates who achieve a high average mark in the final examinations are eligible for transfer through the DIT 'Ladder System' into the honours degree four-year programmes in Computer and Communications Engineering (DT081) and Electrical/Electronic Engineering (DT021). Students who successfully complete year two of this programme and who do not wish to progress to the third year will receive a Higher Certificate award.

### For further details contact:

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## Programme Outline:

### First Year

Engineering Science, Mathematics, Digital Age Technology, Communication Systems, Electric Circuits and Devices, Electronic Systems and Practice, Communication Skills, Software Systems, Computer Systems. There is also some Project Activity which develops a range of valuable practical skills.

### Second Year

Mathematics, Electronics, Software Design, Digital Communications Engineering, Digital Electronics and VLSI, Signals and Systems, Microcomputer Systems.

### Third Year

Mathematics, Electronics, Software Design, Communications Systems, DSP Applications, Business, Students also undertake an engineering project in the third year, which gives a valuable insight into the solution of real-world engineering problems.

Students are required to choose one optional programme in third year. The typical programmes available are Microelectronic Materials and Devices, Wireless Systems, Digital Systems Integration, Microprocessors and Embedded Systems.

All of the technical subjects in the three years of the programme include a range of applied laboratory activities, designed to enhance the knowledge and skills of the students.

### Student Profile:

I always had an interest in "how things work" which is why I chose this programme. There is a nice mix of applied work and lectures and the laboratory work is all relevant to real life examples such as "How a computer stores data on a USB key". My final year project is developing a digital CAD package with another student.

Engineering covers such a wide area that I have a lot of choices available to me this year when I finish. Some of my choices would be to pursue further study and study for my honours degree or go and specialise in another area or go working in industry for a while.

I started this programme not knowing anyone in DIT, but that only lasted a short time as I have made some really great friends. In my three years in DIT I have become involved in societies, volunteering events and sports clubs. College life is nothing like secondary school, I love it!

### Final Year Student

BEngTech in Electronics and Communications Engineering