

## What is Electronic Engineering?

Electronic engineering is a rapidly advancing profession and is the driving force behind the development of the world's information technology. Electronic engineers create, design and develop everyday devices like the mobile phone, portable music devices and computers. Electronic engineering offers a broad range of exciting career challenges including producing new innovations and developments in telecommunications, robotics, computing hardware and power and electrical equipment.

### What do Electronic Engineers do?

Electronic engineering develops the way electricity is used to control equipment. Electronic engineers continually improve the quality of our lives through the development of new equipment in the fields of medicine, communications, computing, security, business and entertainment. It is a challenging and creative profession which, by using the latest state-of-the-art technology, has brought us MP3 players, digital cameras, security systems, improved weather forecasting, electronic medical devices and so many other things that we now take for granted.



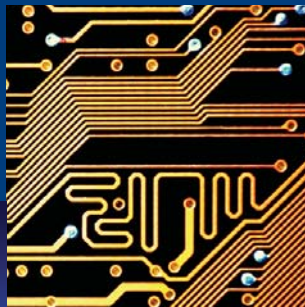
Electronic engineering allows students to specialise in a variety of areas including:

- **Audio, visual and light electronic equipment:** creating and advancing developments in the audio-visual entertainment and information systems and the light electronic equipment sector including Playstations, digital cameras and microwaves.

- **Control systems and automation:** developing equipment to aid transport and the control of automated systems in industry including robots, navigational control systems and radar.

- **Microelectronics:** developing the miniaturisation of electronic systems including microchips and applying electronic engineering to medical applications to develop equipment including hearing aids and pacemakers.

- **Telecommunications:** designing and developing technologies for broadcast, mobile and optical communications.





## Career Opportunities

As an electronic engineer, technologist or technician, you will have the opportunity to be creative, innovative and to make a contribution to our rapidly advancing technological world. This sector is experiencing significant growth both at home and abroad. Electronic engineering offers a wide variety of exciting career opportunities and as an electronic engineer, technologist or technician you can work for:

- Telecommunications companies and corporations
- Civil Service and Government
- Network infrastructure companies
- Radio and television broadcasters and developers
- Electronic component manufacturers
- Electrical power utilities
- Research and educational centres



### Did you know?

John Tyndall, a native of County Carlow, invented the Light Pipe. The Light Pipe illustrated the phenomenon of internal light reflection which is how light is reflected in fibre optics today.

*Engineering provides a host of exciting opportunities for individual enterprise and job flexibility with rapid progress to creative, responsible and financially rewarding careers. For more information look up [www.steps.ie](http://www.steps.ie)*



Aeronautical	
Biomedical	
Biosystems, Agriculture & Food	
Building Services	
Chemical Engineering	
Civil Engineering	
Computer & Software Engineering	
Electrical Engineering	
<b>ELECTRONIC ENGINEERING</b>	Control Systems & Automation
Industrial & Manufacturing	Electronic Equipment
Mechanical Engineering	Microelectronics
	Robotics
	Telecommunications

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### As an electronic engineering graduate you could

- Be responsible for a new advanced control system used to launch and navigate the next spaceship
- Create the next audio-visual technology
- Design a robot to drive the car!

### Employers of electronic engineering graduates include:

Analog, Boston Scientific, Eirgrid, IBM, Intel, Festo, Motorola, Siemens and government bodies to name but a few.



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