



Engineering at TUS - Midwest

#WeareTUS





We are..



6 Campuses
Limerick City,
Thurles, Clonmel,
Ennis &
Athlone

14,000+
students

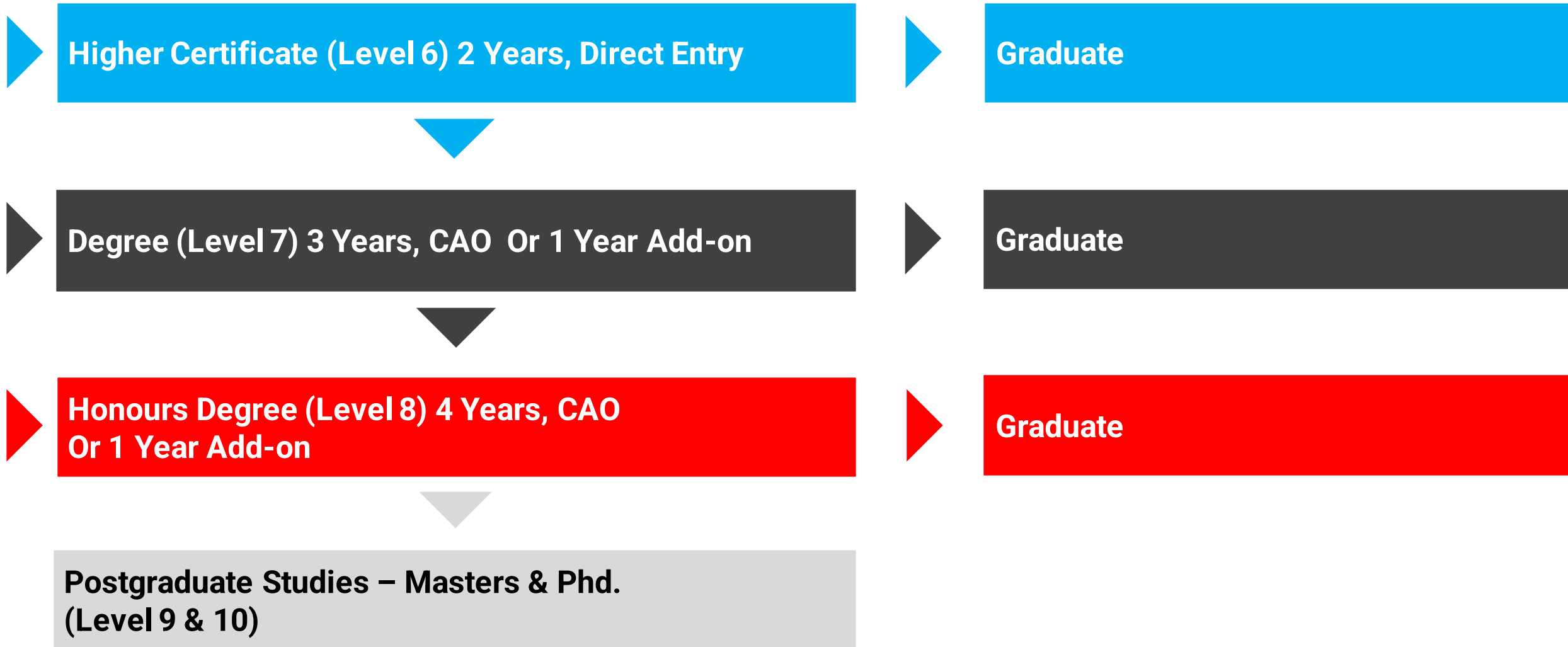
250+
Global partnerships
across the world,
study abroad
placements

3 Departments offering over 25 Engineering courses

- Built Environment
- Electrical and Electronic Engineering
- Mechanical and Automobile Engineering

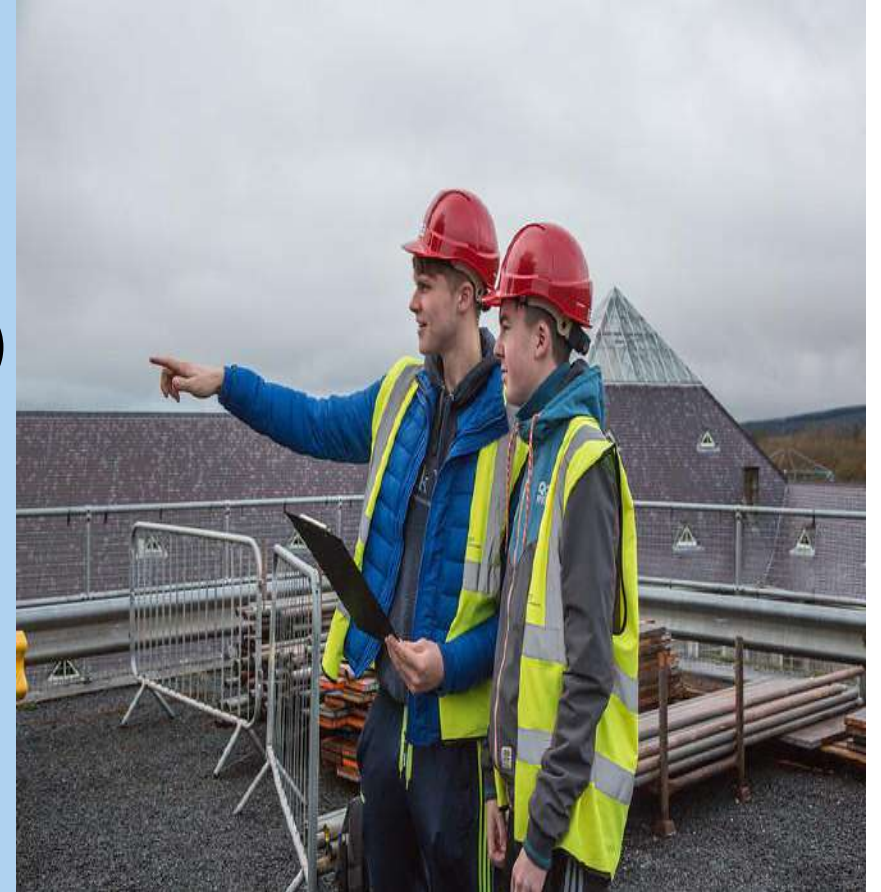


Ladder System



Department of Built Environment Engineering Programmes

- Apprentice / Trades courses : Carpentry & Joinery
- Apprentice / Trades courses : Brick & Stonelaying
- US883 (L8) Built Environment (1st year common entry)
- US760 (L7) Civil Engineering
- US886 (L8) Civil Engineering Management
- US885 (L8) Construction Management



Department of Mechanical & Automobile Engineering Programmes

- Apprentice / Trades courses : Motor Mechanic
- Apprentice / Trades courses : MAMF (Fitter)
- US651 (L6) / US769 (L7) Agricultural Mechanisation
- US650 (L6) / US776 (L7) / US915 (L8) Automotive Engineering
- US779 (L7) / US909 (L8) Engineering Technology Management (**new course**)
- US771 (L7) / US911 (L8) Mechanical Engineering
- US774 (L7) / US914 (L8) Precision Engineering

Agricultural Mechanisation (Level 6 US651, Level 7 US769)



This programme provides education and training for students which enables them to work within the area of Agricultural Technology and the food industry.

The programme is run in conjunction with the Agricultural college at Pallaskenry.

Year 1 includes a 30 week work placement.
Green cert on graduation from Year 2.

Agricultural Mechanisation

Programme Study

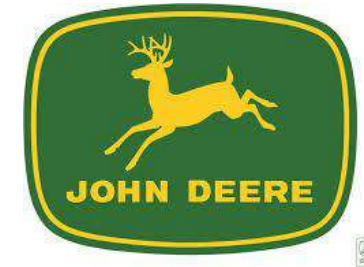
Core Subjects:

- Tractor Engineering and workshop processes
- Electrical & Electronic Technology
- Engineering Maths & Science
- Business Management
- Workshop Administration
- CAD and applied Technology
- + more.....

Job Description

- Main Dealer (Farm Machinery)
- Family Farm
- Farm Manager

Employers



Automotive Engineering & Transport Management (Level 6 US650, Level 7 US775, Level 8 US915)



This programme provides the student with a broad-based knowledge of the Mechanical, Electrical & Electronic components of Motor Vehicles.

The student learns about the administration and management of the motor business, i.e. Sales, Service, Warranty, Fleet Management, etc.

Half of all college hours approx. are spent at lectures while the remainder is spent in the Garage, Machine Shop, Labs & the Welding Shop.

The Level 7 and 8 courses include a 5 month work placement in year 3

Automotive Engineering & Transport Management

Programme Study

Core Subjects:

- Engineering Science & Maths
- Automobile Electrics & Electronics
- Marketing in the Automotive & Transport sector
- Motor Retail Management
- Work Placement

Job Description

- Sales Manager
- Service Manager
- Warranty Manager
- Fleet Manager

Engineering Technology Management (new course) (Level 6, Level 7 US779, Level 8 US909)



Engineering Technology Management was created for students with an essential combination of core engineering, understanding the advancements of technologies and management abilities that are critical skill sets required in Industry.

Graduates will be crucial in managing, designing and controlling challenging projects and tasks such as innovative products, developing sustainable global systems, efficient processes, implementing big data and AI analytics and developing entrepreneurial skills such as creating new business models to support high-value manufacturing settings.

The Level 7 and 8 courses include a 5 month work placement in year 3

Engineering Technology Management (new course)

Programme Study

Core Subjects:

- Engineering Maths/Science/ Technology
- CAD & Design
- Product Innovation & Material selection
- Quality and Regulations
- Statistics and Data analytics
- Management Principles
- Process engineering
- Work Placement

Job Description

An Engineering Technology

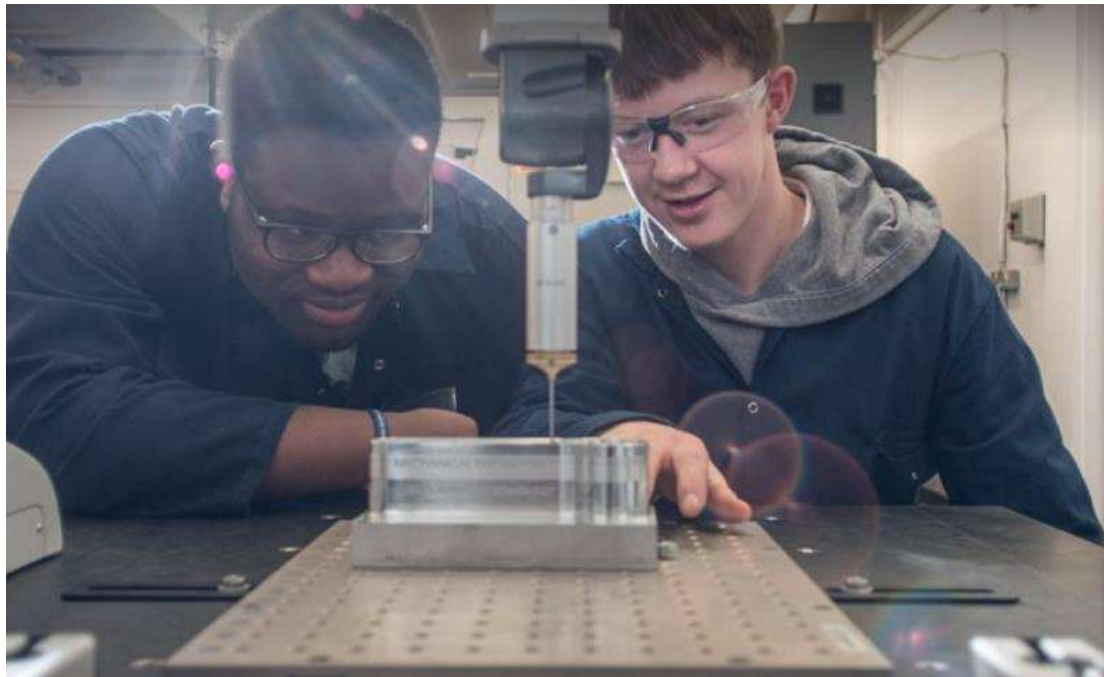
Manager can work as:

- Design Engineer
- Research Engineer
- Project Engineer
- Project Manager
- Technical Manager
- New Technologies Manager
- NPD Manager
- New Business Venture consultant

Jobs in the Region



Mechanical Engineering (Level 6, Level 7 US771, Level 8 US911)



Applies principles of mathematics, science, engineering, and design to products that are either stationary or more often moving

If any product has moving parts, it has to be designed, produced, fixed and improved by a mechanical engineer

If a premises has to be heated, cooled, ventilated it has to go through a mechanical engineer

One of the broadest branches of Engineering

Examples of components/parts

Fasteners, shafts, pressure vessels, turbines, pumps, motors, housings, air conditioning systems, medical devices, aviation components.

The Level 7 and 8 courses include a 5 month work placement in year 3

Mechanical Engineering

Programme Study

Core Subjects:

- Maths
- Science
- CAD
- Engineering Technology
- Electronics
- Pneumatics & Hydraulics (Automation)
- Heat Transfer
- Work Placement

Job Description

A Mechanical Engineer can work as:

- Design Engineer
- Maintenance Engineer
- Building/Facilities Engineer
- Air Conditioning Engineer

Jobs in the Region

AUGHINISH
ALUMINA

stryker[®]

kirby
engineering & construction

Jones Engineering Group

Johnson & Johnson
MEDICAL DEVICES COMPANIES

Precision Engineering (Level 6, Level 7 US774, Level 8 US914)



Precision Engineering is involved with the design, manufacturing and measurement of highly specified parts for the medical, aerospace, automotive, oil and gas exploration and related industries.

Students learn how to work effectively with both manual and CNC machines to produce parts from an initial design to a final product.

The Level 7 and 8 courses include a 5 month work placement in year 3

Precision Engineering

Programme Study

Core Subjects:

- Engineering Maths
- Engineering Science
- Engineering Technology
- CNC Programming
- CAD & Design
- Metrology
- Process Planning
- Work Placement

Job Description

- Precision Engineer
- Applications Engineer
- Design Engineer
- Control Engineer
- Medical Device Engineer

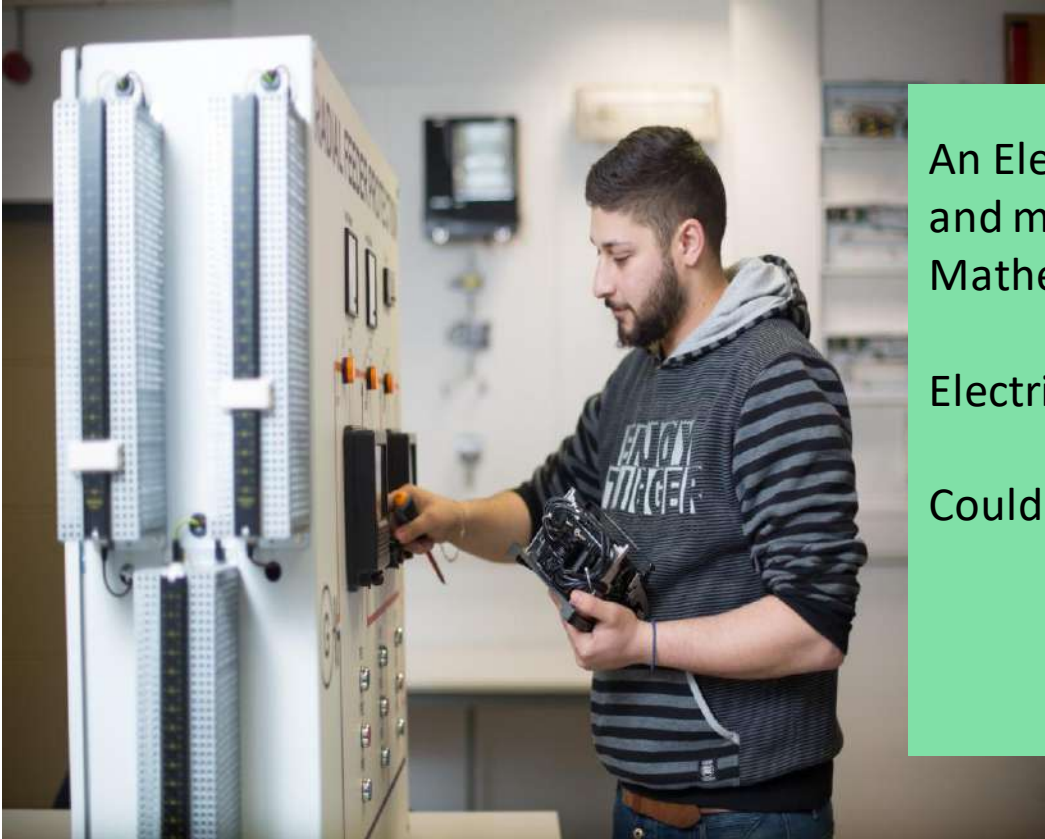
Jobs in the Region



Department of Electrical & Electronic Engineering Programmes

- Apprenticeship / Trades courses : Electrician
- US750 (L7) /US900 (L8) Electrical Engineering
- US751 (L7) / US903 (L8) Electronic Engineering with Computer Systems
- US753 (L7) / US902 (L8) Robotics & Automation Engineering
- US752 (L7) / US901 (L8) Renewable & Electrical Energy Engineering

Electrical Engineering (Level 7 LC271, Level 8LC275)



An Electrical Engineer designs and develops new systems, controls and monitors Electrical Energy, studies the Physics and Mathematics of Electrical Energy.

Electrical Energy is needed for everything we do.

Could you imagine life without Electricity?

Electrical Engineering

Programme Study

Core Subjects:

- Engineering Maths
- Engineering Science
- Electrical Technology
- Electronics
- Electrical Machines & Power Distribution
- Industrial Maintenance & Energy Efficiency
- + more.....

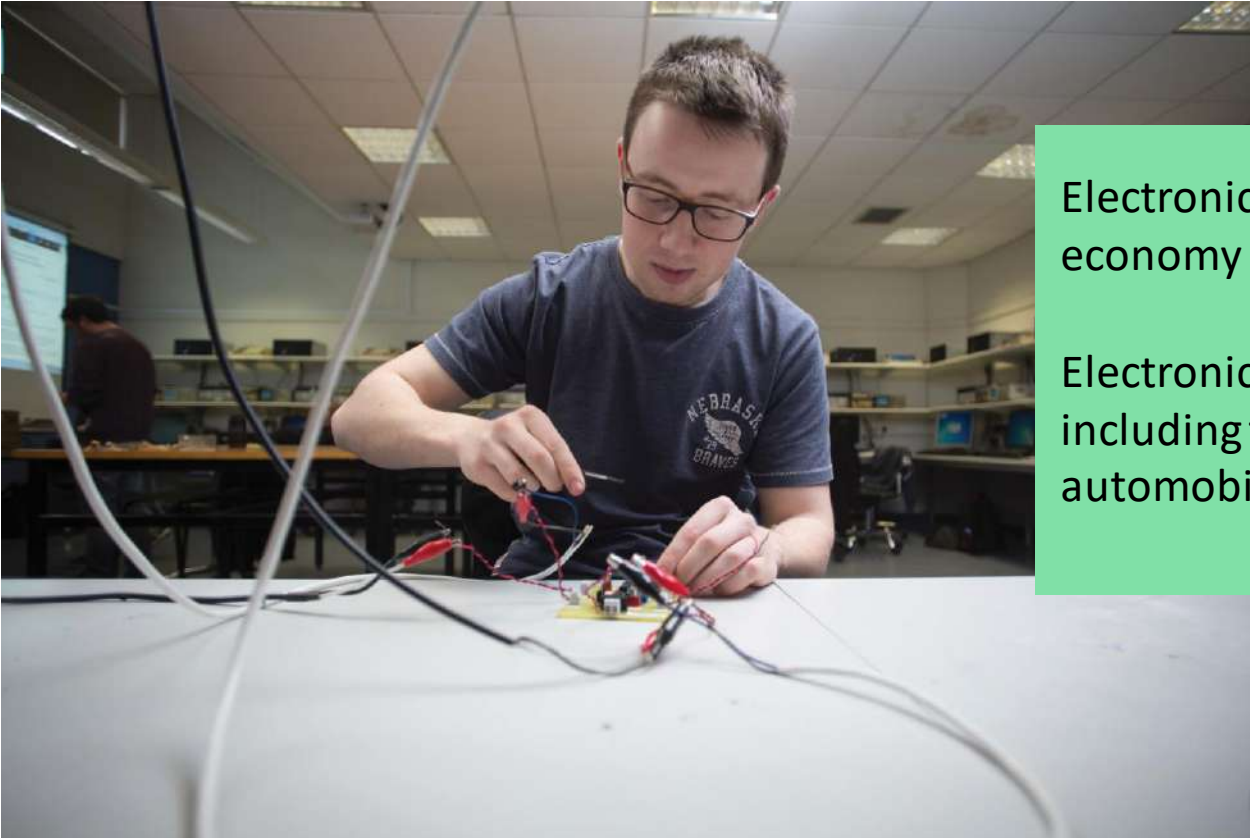
Job Description

- Energy Management Engineer
- Electrical Power Systems Engineer
- Automation Systems Engineer
- Electrical Engineering

Jobs in the region



Electronic Engineering & Computer Systems (Level 7 LC279, Level 8 LC376)



Electronic Engineering is the force behind the world's smart economy and Internet of Things (IOT)

Electronic Engineers create, design and develop everyday devices including the smart phone, games consoles, self driving automobiles, drones etc.

Electronic Engineering & Computer Systems

Programme Study

Core Subjects:

- Applied Maths
- Engineering Science (Physics)
- Electrical Technology
- Electronics
- Microcontrollers and Programming
- + more.....

Job Description

- Electronic Engineer
- Embedded Systems Design Engineer
- Digital Systems Design Engineer
- Electronic System Validation Engineer
- Control Engineer

Jobs in the Region



ON Semiconductor®

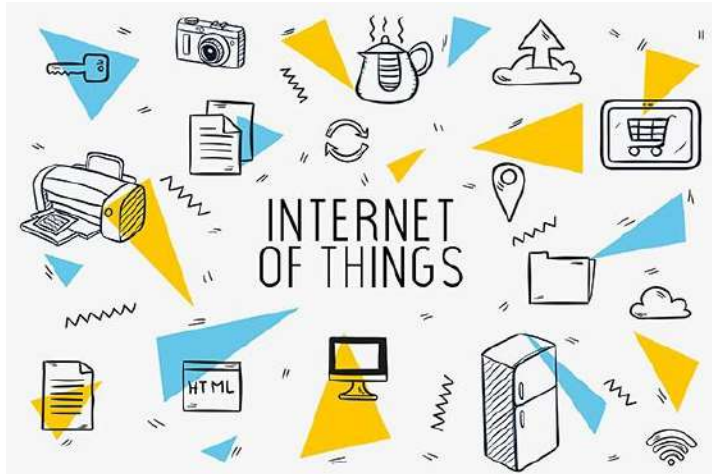
Typical Job Areas Home Technology



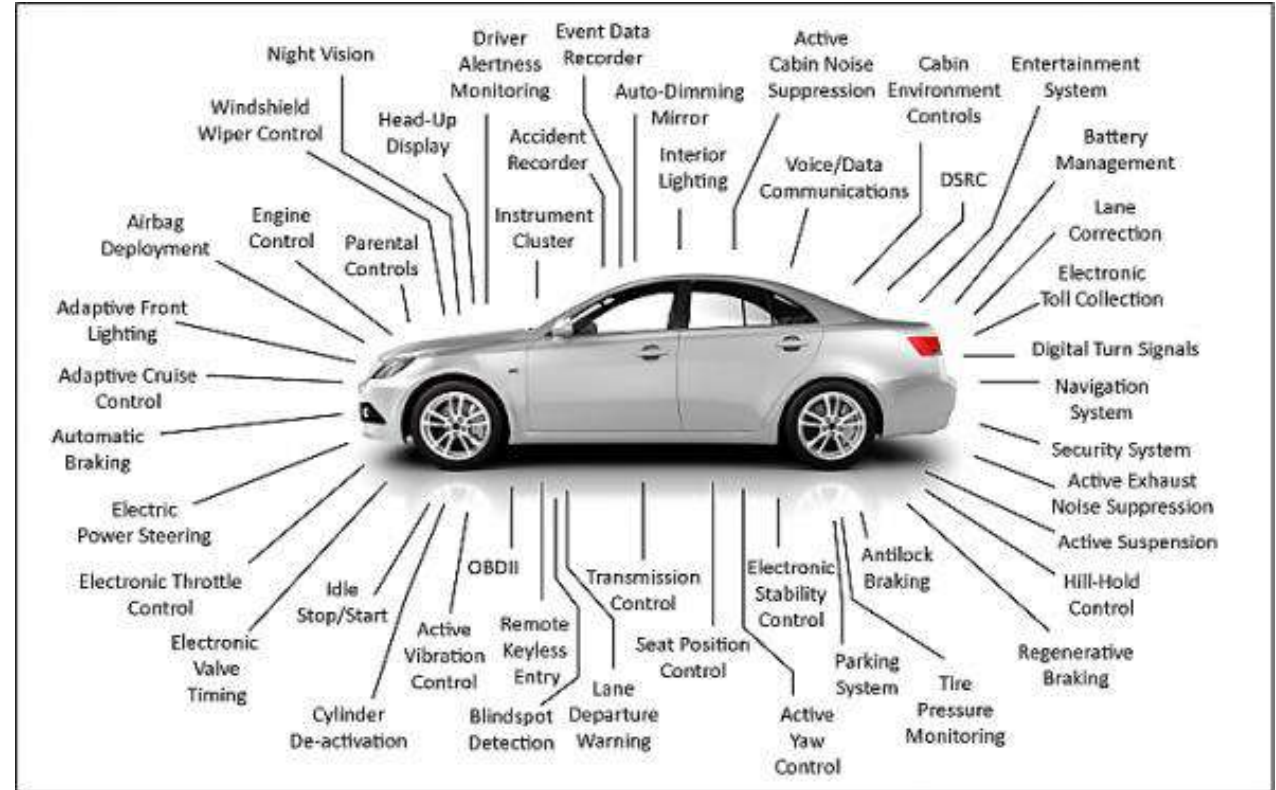
Typical Job Areas Sports Technology



Internet Of Things (IOT)



Automobiles



Robotics & Automation Engineering (Level 7 LC277 , Level 8 LC375)



Automation is the design of electro-mechanical equipment for use in manufacturing products.

An automated system is a system that is used to reduce the need for human work in the manufacture of goods and everyday life such as electric gates, garage doors, milking parlours Velux windows etc.

- To increase labour productivity.
- To reduce labour cost.
- To overcome the effects of labour shortages.
- To improve workers safety.
- To improve product quality.
- To accomplish processes that cannot be done manually.

Robotics & Automation Engineering



Robotics & Automation Engineering

Programme Study

Core Subjects:

- Applied Maths
- Mechanical Systems
- Electrical/Electronic Systems
- Robotic Control Systems
- Electronic Control Systems
- Microcontrollers and Programming
- + more.....

Job Description

- Maintenance Engineer
- Production Engineer
- Automation/Control Engineer
- Debug Engineer

Jobs in the region



Johnson & Johnson
Vision Care, Inc.

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CAO Handbook 2024

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Thank you!

