Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

**Process, Energy and Transport department**

# Careers in Automotive Business Management and Technology

WHATEVER your plans, goals or aspirations maybe, Munster Technological University (MTU) has a course of study for you. The university offers the full range of higher education qualifications, including Bachelor Degrees and Honours (Hons) Bachelor Degrees, as well as Postgraduate Master and PhD Degrees.

MTU is a multi-campus technological university, contributing to the region through the provision of academic programmes that support student development, student opportunities, education, and research. MTU has an extensive and impressive regional footprint with six campuses across the South-West region in Cork and Kerry, and a student body of 18,000.

**Why choose a degree in Automotive Business Management and Technology at MTU?**

The Global Automotive industry is experiencing a rate of change that is unprecedented.

Driven by demands for energy efficiencies, climate and environmental concerns, technological advances as well as consumer expectations, vehicle manufactures now offer the consumer the broadest range vehicles technologies and mobility solutions in the history of our industry.

Traditional options such as petrol, diesel and gas-powered internal combustion vehicles now give way to technological advances such as hybrid powertrains, hydrogen powered vehicles, electric vehicles as well as alternative and sustainable fuelled and multifuel vehicles.

Advancements in data processing, communications and connectivity technologies has also driven change which has transformed the traditional automotive vehicle beyond recognition, allowing for the potential of autonomous driving, shared mobility and advanced feet management. Our MTU graduates are now leading these changes.

For students who have a passion for the automotive industry, who enjoy learning about both automotive business and automotive technology, MTU has the right degree for you.

MTU stands out as one of Ireland's strongest choices, offering two Automotive Degrees, combining practical skills, cutting-edge technology, and clear career pathways.

**Traditional options such as petrol, diesel and gas-powered internal combustion vehicles now give way to technological advances such as hybrid powertrains, hydrogen powered vehicles, electric vehicles as well as alternative and sustainable fuelled and multifuel vehicles.**

MTU offers two specialised degrees in the area of automotive technology and management: A BSc (Hons) in Automotive Business Management and Technology (Level 8), blending technical skills with business acumen, alongside our BSc in Automotive Technology and Management (Level 7).

Both degrees prepare graduates for diverse roles in the evolving automotive industry through practical training, management modules, and work placements.

**Automotive Business Management and Technology Degrees Built for the modern automotive industry**

MTU's Automotive Business Management and Technology Degrees are designed with today's industry in mind. Students don't just learn how vehicles work, they learn how automotive industry works and how the industry is ever-evolving.

As the automotive industry moves towards true sustainable vehicles, MTU ensures graduates are equipped with the most up-to-date knowledge and skills. Students gain experience with high-voltage systems, sustainability principles, and emerging automotive technologies, giving them a major advantage in a rapidly evolving job market.

**Strong focus on practical, hands-on learning**

One of MTU's biggest strengths is its emphasis on learning by doing. Students on both the level 7 and level 8 degree programmes initially spend significant time in well-equipped laboratories and workshops, working with real vehicles, professional diagnostic equipment, and industry-standard tools.

This practical approach builds confidence, technical ability, and problem-solving skills - qualities employers value highly.

Instead of learning concepts only from textbooks, students apply theory in real-world situations. This balance between academic knowledge and hands-on experience ensures graduates are work-ready from day one.

Students undertaking the BSc in Automotive Technology and Management (Level 7) will have a stronger focus on the technology aspect of the automotive industry as their degree progresses.

This degree has a unique combination of theoretical and practical learning applications and aims to provide the graduate with the practical, analytical, managerial, and interpersonal skills necessary for a successful career within the automotive industry.

The degree is taught through a combination of lectures, practical work and assignments related to practical aspects, e.g. motor vehicle technology, garage practice, automobile electronics, advanced diagnostics, CAD/vehicle design, etc.

For further information go online to www.mtu.ie/courses/mt747/#about-the-course

Students undertaking the BSc (Hons) in Automotive Business Management and Technology will focus more on acquiring the skills required from a business perspective and on acquiring the business skills required for today's modern automotive dealerships.

**The degree is taught through a combination of lectures, practical work and assignments related to practical aspects, e.g. motor vehicle technology, garage practice, automobile electronics, advanced diagnostics, CAD/vehicle design, etc.**

The course blends business and technology specifically for the automotive sector, not just general business or engineering.

That means you learn how the automotive industry really works — from operations and supply chains to sales, customer service experience and teaches management, marketing, financial and legal concepts that are valuable if students want to move into leadership, start their own businesses, or be involved in strategic decision-making.

For further information go online to www.mtu.ie/courses/mt847/#about-the-course

At MTU, our Automotive Degrees are built on the fundamental of having a strong industry-relevant curriculum. We work in conjunction with industry partners, so what students learn is directly linked to the needs of the automotive industry.

This covers technical automotive systems (like engines, vehicle electronics and diagnostics) and business and management skills needed in the modern automotive workplace.

Students get hands-on experience with tools, diagnostics and dealer management software, preparing them for real workplace challenges.

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# Process, Energy and Transport department Courses

## Full-time Courses

**Automotive Technology and Management (BSc)**
*(Level 7) Course Code: MT747*

**Automotive Business Management and Technology (BSc)**
*(Level 8) Cours e Code: MT847*

**Chemical & Biopharmaceutical Engineering (BEng Honours)**
*(Level 8) Course Code: MT838*

**Sustainable Energy Engineering (BEng Honours)**
*(Level 8) Course Code: MT837*

## Part-time Courses

**Biopharmaceutical Processing**
*Course Code:* CR_EBIPR_7

**Biopharmaceutical Supply Chain Management**
*Course Code:* CR_EBSCM_8

**Chemical & Biopharmaceutical Engineering MEng**
*Course Code:* CR_ECHBI_9

**Cleanroom Manufacturing Practices**
*Course Code:* CR_ECLMP_6

**Good Manufacturing Practice & Technology Part-time (BSc)**
*Course Code:* CR_SGMPE_7

**Mechanical, Electrical & Plumbing - BIM Applications**

**Science of Biotechnological Manufacturing Operations**
*Course Code:* CR_ESBMO_6

**Validation Science**
*Course Code:* CR_SVASC_7

**Yeast & Beer**
*Course Code:* CR_EPEXX_7 - Y0C

## NEW Style Apprenticeships

**BSc in Engineering Services Management.**

**Higher Cert in Science in Logistics**

**Excellent industry links and work placement opportunities**

MTU has long-standing connections with the automotive industry in Ireland and beyond. Our BSc (Hons) in Automotive Business Management & Technology includes work placement, allowing students to gain valuable industry experience as part of their degree. Based on our experience, our industry placement module can often lead directly to job offers after graduation for our students.

Through guest lectures, industry projects, and collaborations with automotive companies, students gain insight into real career paths and build professional networks before they even graduate.

**Wide Range of Career Opportunities**

An Automotive Degree from MTU opens doors to all corners of the globe. Graduates can pursue careers in automotive engineering, diagnostics, technical support, vehicle testing, motorsport, electric vehicle technology, manufacturing, sales engineering, and further research or postgraduate study.

- Sales executives, Sales Managers and General Managers in Dealerships
- Service advisors, After sales managers, Automotive parts supply chain
- Operations or management roles within vehicle distributors
- Fleet management and logistics
- Consultancy or training around automotive systems
- Vehicle parts supply and marketing roles
- Vehicle Leasing and Vehicle Rental

The skills developed—critical thinking, diagnostics, electronics, and systems analysis—are highly transferable, giving graduates flexibility and long-term career security in a changing industry.

**Supportive Learning Environment**

MTU is known for its student-focused approach with smaller class sizes, approachable lecturers, and strong academic supports, creating an environment where students are encouraged to ask questions, develop confidence, and to reach their potential.

Lecturers have real industry experience, bringing practical insight and relevance into the classroom.

Beyond academics, students benefit from a vibrant campus life, modern facilities, and a strong sense of community—making MTU not just a place to study, but a place to grow.

**Preparing Students for the Future of the Automotive Industry**

As the automotive industry moves toward sustainability, automation, and smart technologies, MTU automotive graduates are well positioned to lead the change.

The university's forward-looking approach ensures students graduate with relevant, future-proof skills that align with global automotive trends.

For students who are passionate about vehicles, technology, and innovation, an automotive degree at Munster Technological University offers the perfect balance of practical experience, academic excellence, and real career opportunity.


# Research in MTU's Process, Energy and Transport department

**Research**

The Process, Energy & Transport Engineering Department in MTU is home to two designated research groups:

MeSSO - Mechanical & Energy Systems Simulation & Optimisation

PiERG - Process Innovation Engineering Research Group

**MeSSO - Mechanical and Energy Systems Simulation and Optimisation**

MeSSO undertakes research in a number of different applications within the general domain of mechanical, agri and energy systems simulation. Some of the current projects include:

The **National Agricultural Energy Optimisation Tool** aims to quantify and reduce farm electricity consumption, greenhouse gas emissions and production costs through data analysis and mathematical modelling.

The **grass measurement optimisation tool (GMOT)** is designed to optimise grass measurement practices on livestock grazing platforms by increasing measurement precision and curtailing measurement time and effort.

MESSO are responsible for the operation of a **National Low Energy Retrofit testbed**. The output from this ongoing project will be a weather and building energy systems performance database for use by the wider research communities.

**Ventilation Airflow performance in Cleanrooms.** This project is part funded by PM Group and involves the study of improved modelling techniques.

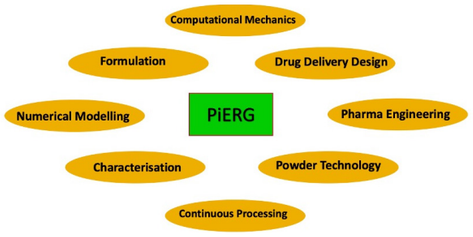
**Control and optimisation of smart grid connect buildings**. This body of research focuses on the integration of renewable energy sources with a smart building.

**Vertical axis wind turbine design.** Traditional wind turbines are not a favourable design for offshore, floating applications.

**PiERG Process innovation Engineering Research Group**

The key objective of PiERG is to provide solutions to the Pharma Engineering sector through it's combined expertise in the development of predicting models and industrial pharma processing.

PiERG's research agenda is to focus on continuous processing and computational modelling within the pharmaceutical sector, and it aims to provide novel solutions to industry and add to the current state-of-the-art research.




**PiERG has success in process technology transfer from academic research to industrial setting illustrating another strength of the group.**

PiERG has a proven track record in advanced modelling, powder processing, drug delivery, medical devices, formulation and chemical processing.

They also have extensive experience in securing, leading and managing productive high impact research in industrial lead collaborations (€1.2m specific to MTU).

PiERG has success in process technology transfer from academic research to industrial setting illustrating another strength of the group.

Success in academic-industrial partnerships is evident in recent years working with Alkermes, Pfizers Ringaskiddy and Pfizers Newbridge.