



"Opening in September 2011, NUI Galway's new Engineering Building is the largest School of Engineering in the country at 14,200 square metres, housing 110 staff and approximately 1,100 students.

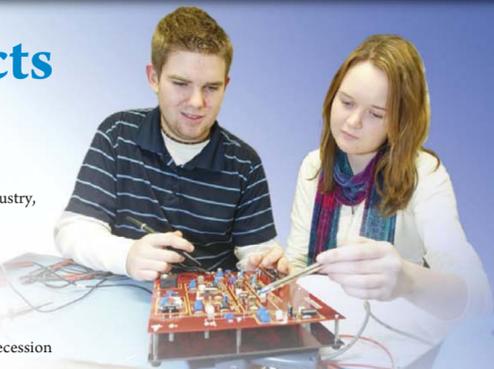
Located in north campus and built to the most modern design, the building is equipped with the latest facilities providing a working example for engineering students to study.

The 4 storey building located beside the river Corrib houses up to date lecture theatres, classrooms, research facilities and break out spaces where students can collaborate on projects and discuss the latest cutting edge developments in Engineering that they see around them as well as laboratories which allow students and researchers to build prototypes for testing and evaluation."

## Career Prospects in Engineering

- Engineers enjoy a wide range of different careers in industry, in management and Government organisations
- NUI Galway engineers remain in demand because our degrees are recognised and regarded nationally and internationally
- Job prospects in many areas of Engineering, especially energy, computing and electronics, remain very strong
- It is highly likely that even those areas affected by the recession will have recovered by the time you graduate

Find out more about the career destinations of Engineering graduates: [www.nuigalway.ie/careers/students/destinations/courselist.html#engineering](http://www.nuigalway.ie/careers/students/destinations/courselist.html#engineering)



**Did You Know?**  
The first woman to graduate with an Engineering degree in Ireland or the UK was Alice Perry, a Queens College Galway (now NUI Galway) student!

### A day in the life of an Engineer...



**JAMES O'HARA,**  
Construction Project Manager,  
SSE Renewables (Airtricity)

Why did you choose NUI Galway for your Engineering degree?  
I chose to study Civil Engineering at NUI Galway due to the excellent reputation Engineering has in Galway.

What does a typical working day involve?  
Every day is different. I spend 2-3 days a week on-site and the rest based in the office. My main responsibilities day-to-day are to coordinate and manage the three main contractors who work on the construction of a Windfarm construction site, to ensure delivery of the Windfarm project safely, on budget and on time.

How did your course prepare you?  
As part of my course in Civil Engineering in Galway I studied Highway and Traffic design and Design of Concrete Structures. The largest portion of work during the construction of a windfarm falls into these two categories. I have a firm understanding of the road and foundation design of the windfarm, but also understand the importance of their proper construction.

I also studied project management as part of the course and this has been invaluable in allowing me to start working as a Graduate Project Manager. The course also taught me to be adaptable. With each day being so different and new issues arising each day, it is important to develop this skill.

What next?  
With the wind industry growing so fast, currently there are a number of opportunities for work. The future looks more and more like off-shore wind energy will be the biggest growth area. It would be my ambition to move onto off shore construction shortly and project manage a large -scale off shore windfarm.

### What our students say...



**AILISH BRENNAN**  
Sports and Exercise  
Engineering student

I am in second year Sports and Exercise Engineering at NUI Galway. I was very interested in this course as a Leaving Cert student as it is the first of its kind in Ireland and it has lived up to all my expectations. I am really excited to get involved in the PEP work

placement programme where I will be spending between six and nine months applying the theory I learn in class to the real world environment.

Being from Kildare, Galway was an easy choice for me. There are plenty of really good transport links especially since the opening of the new motorway. I feel like I couldn't be closer to home.

Clubs and societies are an active part of the college and the choices are extensive which means there is something for everyone. This year I took part in the annual musical 'The Wiz' performed by NUI Galway's Musical Society. It allowed me to make friends with people who have the same interests as me, outside of study. NUI Galway is a brilliant place to go to college and I can't imagine being anywhere else.



## Engineering at NUI Galway



Contact us directly at  
College of Engineering and Informatics  
T: +353 91 492 101 or +353 91 492 664  
E: [engineeringandinformatics@nuigalway.ie](mailto:engineeringandinformatics@nuigalway.ie)

[www.nuigalway.ie/engineering](http://www.nuigalway.ie/engineering)

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## Engineering at NUI Galway

Thank you for choosing a degree programme from the College of Engineering and Informatics at NUI Galway as one of your choices through the CAO. Engineering is one of the most popular degrees at NUI Galway and with a wide choice of courses, investment in the very best facilities and excellent career opportunities, it's easy to see why.

Engineering plays a critical role in the development of the global economy. It is at the heart of innovation and design for the development of smart products, services and infrastructure.

# Engineering Programmes

**New**

### Energy Systems Engineering

- Started in 2009 in response to a growing demand for professional engineers to work in the energy sector
- Focuses on energy conversion, electrical power systems and energy management
- Includes the study of energy sources, energy policy & economics and associated environmental issues

**Unique**

### Sports and Exercise Engineering

- A unique course only available at NUI Galway, introduced in September 2008
- Students study Electronic Engineering, Mechanical Engineering and Health Sciences (Anatomy, Physiology and Rehabilitation),
- Develop the skills and expertise to design sports and exercise equipment of the future

**Unique**

### Engineering Innovation - Electronic

- Designed to prepare engineers of the future, with a unique mix of Engineering, Innovation and Business skills
- Students gain the skills necessary to start up their own companies to design niche electronic engineering-based products for a world-wide market

### Undenominated Engineering

- This popular course is for students who wish to study Engineering but are not sure which branch of engineering they want to specialise in
- In first year, you get an introduction to all of the different areas of Engineering
- In second year you transfer to a denominated Engineering degree in the area of your choice

### Mechanical Engineering

- Involves applying a knowledge of Science and Mathematics in the design of devices and machines
- Students study Computer Aided Analysis and design (CAD), Materials Engineering, Automation and control, Energy and Aerospace

### Civil Engineering

- Focuses on the planning, design, construction and maintenance of major structures such as buildings, bridges, roads, etc

### Environmental Engineering

- The Environmental Engineer develops and applies various techniques to ensure a safe water supply, the prevention of pollution and the disposal of waste

### Biomedical Engineering

- Biomedical Engineers design and create machines, devices, instruments and materials to enable the medical profession to diagnose disease and repair or replace damaged living tissue
- Galway is the hub of the Biomedical Engineering industry in Ireland and NUI Galway has leading expertise in this area

### Electrical and Electronic Engineering

- Involves developing technologies for our future needs in areas such as communications, electrical energy, healthcare, entertainment
- This programme appeals to students who like to understand how technology works and who are interested in electrical or electronic circuits

### Electronic and Computer Engineering

- This degree focuses on the design of computer hardware, software and systems to meet the demand for combined hardware and software design

### Project and Construction Management

- Provides students with extensive training in construction and project management
- Prepares graduates for technical, management, and research and development positions in the construction industry

### Did You Know?

When our new Engineering Building opens in 2011, it will be the largest School of Engineering in the country.

### Special Maths Exam

Engineers solve problems by quantifying so Mathematics is an important part of an Engineering degree. The entry requirement for our Engineering degrees is a Grade C3 or higher in Leaving Certificate Honours Mathematics.

However, if you are studying Pass Maths or fail to achieve an honour in Honours Maths, you can still gain entry to Engineering by passing our Special Engineering Entrance Examination. The standard of this examination is between the Higher and Lower level leaving certificate Mathematics. The Special Exam is held at NUI Galway on August 25, 2010. Candidates who reach the appropriate standards in the Special Maths Examination are deemed to have satisfied the Mathematics requirement for entry to first year of the B.E. degree courses. The Special Maths Exam is now also available for those undertaking Project and Construction Management and Computer Science and Information Technology.

### Revision Course for Special Maths Exam

In advance of the special Maths exam, NUI Galway will hold an intensive preparatory course for applicants intending to sit this examination.

As well as preparing students for the exam, lecturers will demonstrate the significant relevance of Mathematics across the engineering programmes, and will highlight the ways in which Maths can be applied to solve engineering problems

### Work Experience Opportunities

All of our Engineering degrees involve a period of work experience known as the Professional Experience Programme (PEP):

- Our students spend 5-months in work placement in a relevant Irish or international company
- This gives you an opportunity to put your learning in to practice in a real world setting
- Work experience greatly enhances your future employability

Find out more about the work placement programme:

[www.nuigalway.ie/administration\\_services/placement/pep.html](http://www.nuigalway.ie/administration_services/placement/pep.html)



# “NUI Galway offers a diverse range of professional Engineering programmes. All of these degrees are highly respected by industry and have full international recognition.”

Throughout the world, Engineers are sought after as the creators and designers for sustainable development of economic, energy and natural resources.

I wish you well in making study and career choices and look forward to welcoming you to the College of Engineering and Informatics at NUI Galway.

Professor Gerry Lyons  
Dean of the College of Engineering and Informatics

### Did You Know?

Engineers are 7 times more likely to take up positions as Chief Executives in companies than any other graduates.

### Did You Know?

NUI Galway is the only University in Ireland to offer a degree in Sport and Exercise Engineering.

