



Electrical Technology for Sustainable and Renewable Energy Systems MSc

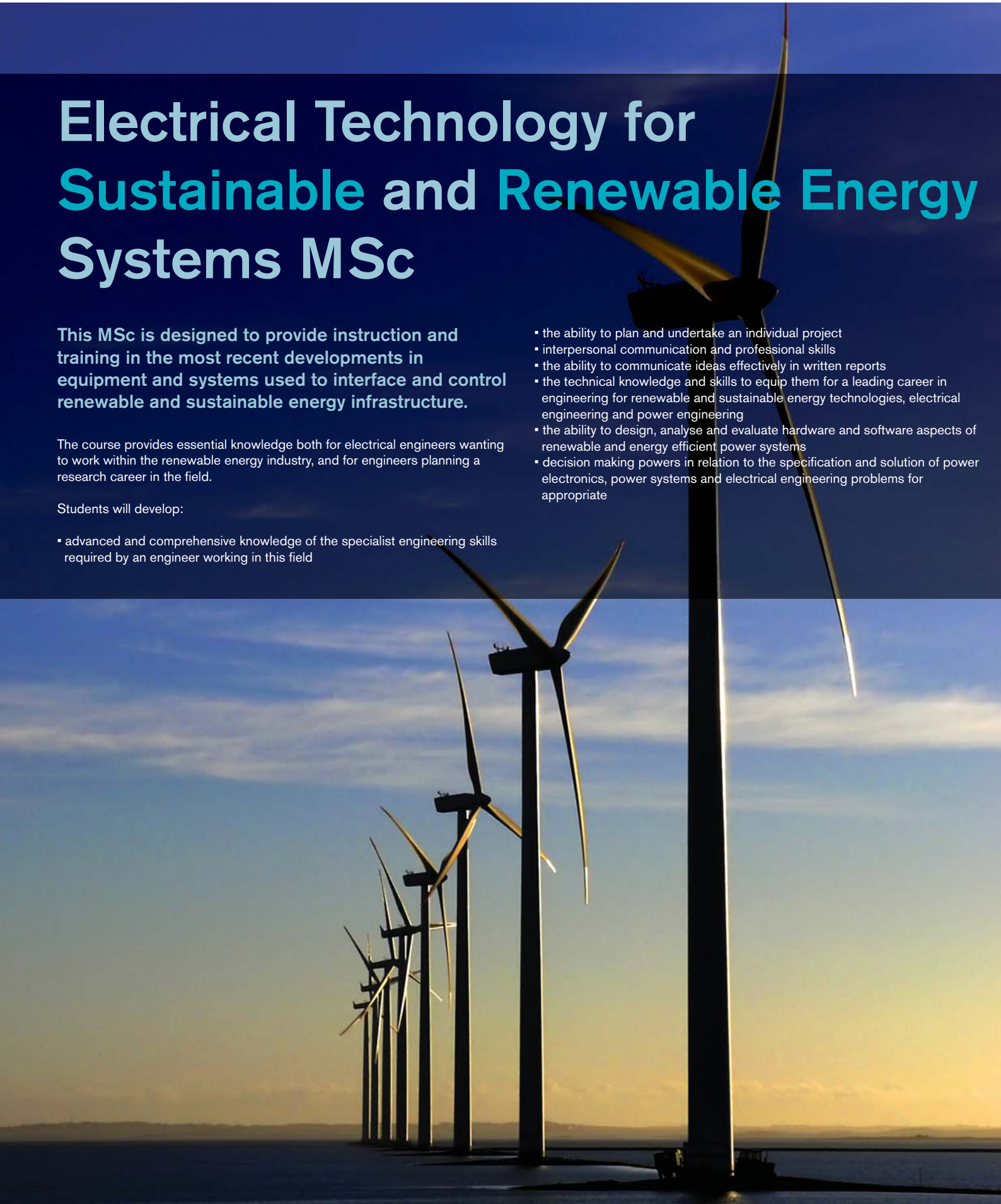
This MSc is designed to provide instruction and training in the most recent developments in equipment and systems used to interface and control renewable and sustainable energy infrastructure.

The course provides essential knowledge both for electrical engineers wanting to work within the renewable energy industry, and for engineers planning a research career in the field.

Students will develop:

- advanced and comprehensive knowledge of the specialist engineering skills required by an engineer working in this field

- the ability to plan and undertake an individual project
- interpersonal communication and professional skills
- the ability to communicate ideas effectively in written reports
- the technical knowledge and skills to equip them for a leading career in engineering for renewable and sustainable energy technologies, electrical engineering and power engineering
- the ability to design, analyse and evaluate hardware and software aspects of renewable and energy efficient power systems
- decision making powers in relation to the specification and solution of power electronics, power systems and electrical engineering problems for appropriate





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Course structure

This masters course is taught on a full-time basis over one year and is also offered as a postgraduate diploma which follows the same taught modules but does not include the research project. The course consists of 120 credits of taught modules over Autumn and Spring and a 60 credit independent research project over the summer. Please be aware modules are subject to change.

Core modules

Autumn semester

Control Systems Design	10 credits
Renewable Energy Technology 1	10 credits
Power Electronic Design	15 credits
Power Networks with Laboratory	15 credits
Technologies for the Hydrogen Economy	10 credits

Spring semester

Energy Conversion for Motor & Generator Drives	10 credits
FACTS and Distributed Generation	10 credits
Technologies for Wind Generation	10 credits
Advanced AC Drives with Project	20 credits

Optional modules

Renewable Energy Technology 2 (Spring)	10 credits
Combined Heat and Power Systems (Spring)	10 credits

Individual project

Following the successful completion of the taught modules, an individual research project is undertaken during the summer term. There is a wide choice of project areas to choose from and all projects are supervised by an academic staff member.

Previous research projects on this course have included:

- the design of a DC-DC voltage convertor with maximum power tracking for a photovoltaic module
- electrical modelling of a PEM fuel Cell
- microprocessor based control of a wind turbine generator
- optimisation of the operation of a renewable energy micro grid

Funding Opportunities

Find out more about funding options at:
www.nottingham.ac.uk/graduateschool/funding

Employment prospects

Graduates of this course progress to many different, exciting roles including design and development with major international companies or government agencies, obtain consultancy posts with leading contract consultant companies or move into successful academic careers.

Entry requirements

Candidates would usually be expected to hold at least a 2.2 honours degree or equivalent in a related subject from a recognised university.

English language requirements:

- IELTS score of at least 6.0 with a minimum score of 5.5 in individual elements

Other qualifications are accepted and exceptions are sometimes made for students who have had their education entirely in the medium of English and where English is a well-established second language.

How to apply

Candidates are encouraged to apply online at:

<https://pgapps.nottingham.ac.uk>

Contact us

For further information, please contact:

PGT Admissions
Department of Electrical and Electronic Engineering
t: +44 (0)115 95 15600
e: pg.adm@eee.nottingham.ac.uk
w: www.nottingham.ac.uk/eee

To request this information in an alternative format:

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