



Coventry
University

Faculty of
Engineering, Environment and Computing
PhD Opportunities

EXCELLENCE
WITH IMPACT

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Welcome

A PhD degree is one of the highest academic qualifications that you can attain. Should you choose to join Coventry University and our faculty for the journey; you will certainly be inspired, challenged and supported to success!

Coventry has a long and proud history of scientific contribution and research breakthroughs in a number of disciplines, further described in the brochure. Most of our research programmes are of fundamental importance to our modern world and the challenges we collectively face in the 21st Century. As a Coventry University research student you will have the opportunity to make a very real impact on our world by advancing knowledge and creating technology and science development opportunities for the next generation researchers. You will join our teams of staff engaged with the excellence with impact research strategy and be part of an active, motivated and forward looking body of hundreds of researchers – from students to established professors.

Research is central to our mission to promote creativity, innovation and knowledge exchange and Coventry University has an impressive record of research partnerships with commercial, academic and Government organisations to support the research you are undertaking.

A key strand of the University's research strategy is to integrate our research students into research teams, promoting great relationships with their supervisors and professors and with our exceptional facilities and superb support mechanisms.

In return for your investment in your studies, we offer you every opportunity for academic success – we look forward to welcoming you at Coventry!

Professor Elena Gaura
Associate Dean, Research
Faculty of Engineering Environment and Computing



Professor Elena Gaura



Why Study for a PhD in the Faculty of Engineering, Environment and Computing?

- The Faculty has a strong tradition of business-focused education and research, working with some of the biggest names in industry, including Jaguar Land Rover, GE Aviation, Cummins and Intel.
- Our innovative activity-led learning approach is internationally recognised and has shaped the unique culture of our forward-facing Faculty in its £55m state-of-the art building.
- As an ambitious and innovative university, we're investing an initial £100m into our new research strategy, 'Excellence with Impact'. Through original approaches from world-leading experts, we're aiming for our research to make a tangible difference to the way we live.
- 92% of our research was recognised as world leading, internationally excellent or recognised internationally in the recent REF2014 results (compared with 62% in RAE 2008).
- Our research programmes have been commended by the Quality Assurance Agency (QAA) for the training we provide and the attention given to career development.
- Coventry University has been named 'University of the Year' in the Times Higher Education (THE) Awards for 2015.
- The University has also been named 'Modern University of the Year' for a third time in a row in the Times and Sunday Times Good University Guide 2016.
- We are 'University of the Year for Student Experience' in the Times and Sunday Times Good University Guide 2015.
- We are ranked number 15 UK University (Guardian University Guide 2016).
- We are investing £150m on estate and facilities and significantly investing in PhD studentships.

Modern University of the Year
2014 | 2015 | 2016
The Times and Sunday Times
Good University Guide 2016

— WINNER —
University of the Year
THE AWARDS
TIMES HIGHER EDUCATION 2015

Top University for Student Satisfaction
The Times and Sunday Times
Good University Guide 2016

Ranked No.15
UK University
The Guardian University Guide 2016

Life on Campus

Our compact single site campus in the heart of Coventry will give you unrivalled access to all the university facilities and services, as well as those of a friendly modern city, both of which have benefitted from massive redevelopment in recent years. Vibrant new buildings and inspiring teaching and social spaces make our environment a wonderful place to work. In the heart of the city centre, we have created a campus feel to our space in the city and have our own convenience store, coffee shops and sports centre.

The City of Coventry is steeped in history, and on the doorstep to the University campus are the old and new Cathedrals, medieval streets and a variety of art galleries and museums. A centre of peace and reconciliation, Coventry has a diverse and multicultural population where a rich tapestry of faiths and cultures make a vibrant society to live and work in.



Facilities

In 2012 the Faculty of Engineering, Environment and Computing opened its iconic new building to support new ways of learning, designed by industry experts to be the most advanced technological learning space in the UK. The stunning £55 million centre is innovative both inside and out. Its visually stunning, futuristic exterior marks it as an iconic building at the heart of one of the UK's most historic engineering cities.

- We are the only University Faculty in the UK with multi-simulator integration enabling students to take to the skies and record their flights.
- Built and tested by the Mercedes AMG PETRONAS Formula One team, our open-jet single return wind tunnel has been designed to accommodate 20% scale, open-wheel racing car models with a maximum air velocity of 45 m/s.
- Our High Performance Engineering Centre houses a multitude of exciting technologies for use by both students and industry.
- Our 'Smart' building underpins our capabilities with data ports running 150 times faster than the current UK average broadband speed of 6.8 mbs.
- Our specialist games technology lab, CISCO certified networking lab and ethical hacking lab include a suite of industry specific software used by businesses around the world.
- Our Environmental Chamber is designed to test the hygrothermal performance of real life samples in a wide range of simulated climate conditions in order to understand how heat, air and moisture move across and through building components.
- We have a modelling shop with rapid prototyping, CNC milling and laser cutting facilities and a facility and equipment for laser cutting and joining of metals.
- Based on the Coventry University Technology Park, Parkside Future Vehicle Labs is home to Microcab - a spin-out company from Coventry University that has pioneered the design of hydrogen fuel cell powered low carbon vehicles.
- We have extensive specialist laboratories and equipment in structures, materials, building physics, surveying, hydraulics, geotechnics and highways. These are used in student projects and heavily involved in testing for outside companies.





PhD Opportunities

The Faculty of Engineering, Environment and Computing offers the following postgraduate research degrees:

Masters by Research (MA or MSc) – 1 year full time or 2 years part time

Doctorate (PhD) – 3-4 years full time or 5-6 years part time

Engineering Doctorate (EngD)

Our full catalogue of current research studentships can be found at www.coventry.ac.uk/research/research-students/research-studentships/

Research Centres and Areas

Our PhD opportunities sit within a range of research centres and departments as listed below. You can find further information regarding these centres and departments in the back sleeve of this brochure.

Centre for Flow Measurement and Fluid Mechanics

The flow of complex fluids and mixtures of fluids is at the heart of many industries. Our research focuses on novel measurement techniques for complex and multi-component flows, improving uncertainty through sensor diagnostics and close-coupling of modelling and measurement to allow end users to optimise their processes.

Centre for Low Impact Buildings

This area of research focuses on delivering solutions to close the design versus as-built performance gap found in the built environment. Our academics seek to answer the overarching research question: how do we ensure decision-making processes during building design, construction and operation reflect the whole life implications of the dynamic nature of building performance, the effects of occupant responses and perceptions, and the impact of future uncertainties?

Centre for Manufacturing and Materials Engineering

This area of research takes a holistic approach to fabrication and manufacturing, focusing on the three strands of Materials, Processes and Products; and underpinned by our expertise in metrology and Advanced Experimentation. Our research integrates seamlessly with the Institute for Advanced Manufacturing and Engineering, our flagship collaboration with Unipart Manufacturing.

Centre for Mobility and Transport

This area of research works across our faculties and focuses on the design and engineering of future transport systems, including the growing influence of the internet and connectivity. The focus is on inclusive, sustainable and safe transport integrating the strongest research elements in design and engineering.

Cogent Labs Research

Cogent Labs is a world-leading applied research group dedicated to analysis and development of sensing-based sociotechnical systems. It has a dual focus: robust, deployable pervasive sensing systems for real-life applications at scale; and effective packages for empowering users to maximise the benefits of those systems.

Computing Research

Computing Research at Coventry University covers a broad range of practical and theoretical topics. We are currently working on Data Science, Serious Games, Big Data, Computer Security and Software Defined Networks as well as more fundamental Computer Science research.

Mathematics, Physics and Statistics Research

This area of research covers fundamental and applied problems in mathematics, statistics and physics, in particular the properties of complex systems and their applications. Research interests particularly focus on areas of Statistical Physics and Fluid Dynamics.

Why I Chose the Faculty of Engineering, Environment and Computing

Dr Hua Guo, PhD Graduate and Research Assistant in Metrology, Test and Development

I originally started a MSc. Automotive Engineering course at Coventry University. This opened up a lot of opportunities for me, and the positive experiences gained encouraged me to seek a higher target within the university - a PhD in mechanical and automotive engineering.

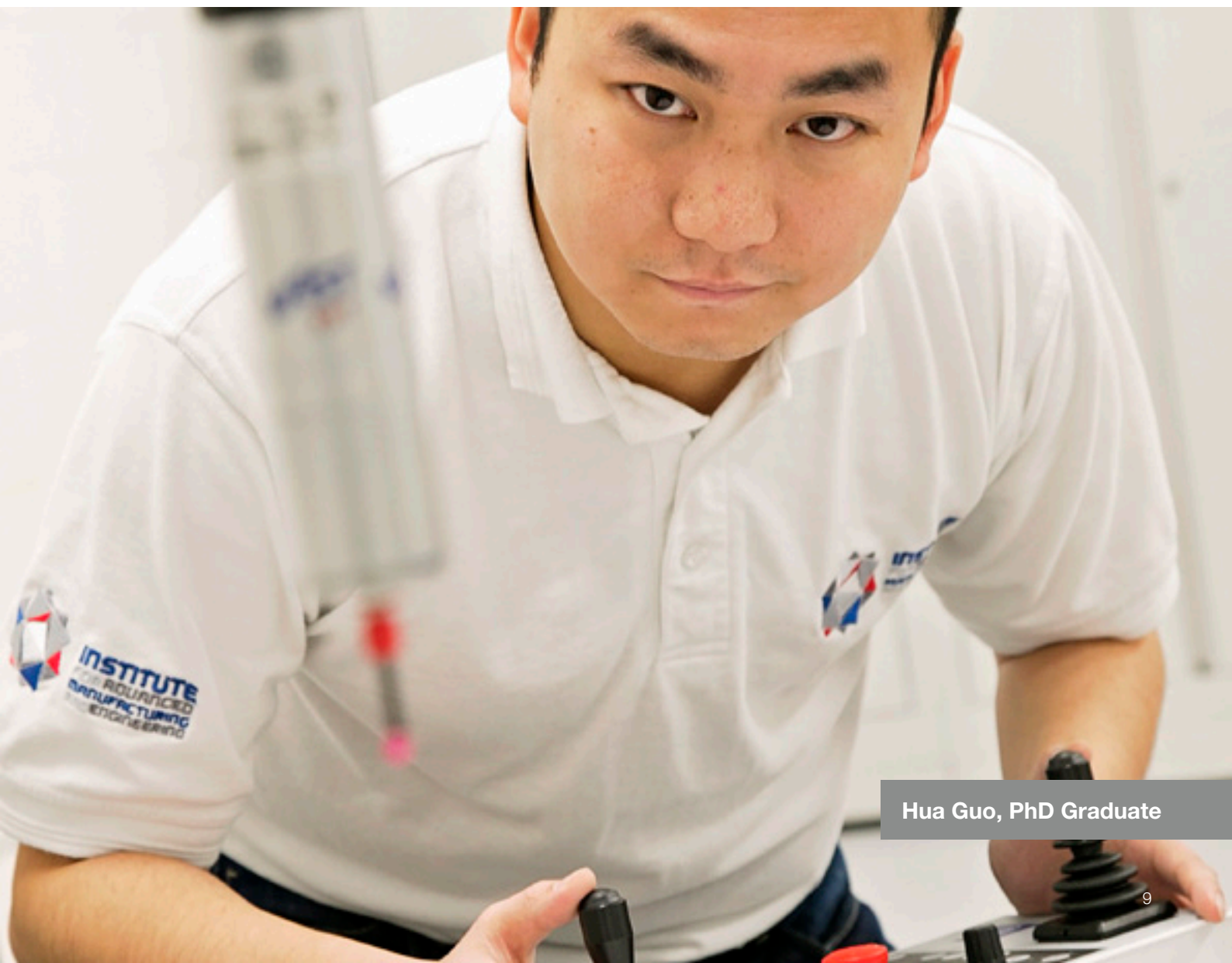
I'm very grateful for the encouragement and inspiration given to me by my supervisor during my studies. Not only did I receive constant technical and academic support, but also mentoring and guidance for my own personal development and career planning. It wasn't always easy keeping the enthusiasm and concentration going over the several years it took to complete my PhD, but I can honestly say that at every stage my supervisory team were supportive in helping me to overcome any challenges.

The opportunity to publish and present the research outcome at an international conference has been highly creditable for my

own academia career. Furthermore, the cooperation on such an applicable research between me, my supervisor team and the supporting company was a unique and beneficial experience. These experiences have equipped me with excellent technical, academic and communication skills to further my career.

Coventry city itself is a very convenient place to live and study. The living expenses are fairly low and unlike some of the bigger cities it is relatively quiet with fewer 'distractions' if you choose not to participate in the lively city scene.

Attaining my PhD is not just about being granted the title of Doctor. It is a globally recognised academic degree which is both valuable and highly creditable for my academic career. My efforts and achievements have been recognised both within the University and the collaboration companies, and it has given me the confidence to step even further into the academic area.



Hua Guo, PhD Graduate

Entry Requirements

Entry criteria for applicants to MSc/MA by Research

A minimum of a 2:1 first degree in a relevant discipline/subject area with a minimum 60% mark in the Project element or equivalent with a minimum 60% overall module average.

Entry criteria for applicants to PhD

A minimum of a 2:1 first degree in a relevant discipline/subject area with a minimum 60% mark in the Project element or equivalent with a minimum 60% overall module average.

In the event of a first degree classification of less than 2:1, a Masters Degree in a relevant subject area will be considered as an equivalent. The Masters must have been attained with overall marks at merit level (60%). In addition, the dissertation or equivalent element in the Masters must also have been attained with a mark at merit level (60%).

English language proficiency required for research programmes

All applicants for a higher degree by research must have a command of the English language sufficient to be able to complete satisfactorily the programme of study and to prepare and defend the thesis in English.

Overseas applicants are required to demonstrate their competence through attainment of a notified overall minimum IELTS score of 7.0 with a minimum of 6.5 in each component (or equivalent English language qualification and score) prior to application.

How to Apply

There are a number of steps to work through before you apply for a PhD at Coventry University. There is immense satisfaction in pursuing a subject that you find genuinely exciting and making a personal input to. If you are a high academic achiever, committed to attaining a higher level of understanding and making an individual contribution to a subject area then a PhD at Coventry University could be for you.

Please go to www.coventry.ac.uk/research/research-students/ for further details on:

- How to apply
- The recruitment process
- Application deadlines
- Fees and funding

If you have any enquiries regarding how to apply or the status of your application please contact admissions.ec@coventry.ac.uk

Our full catalogue of current research studentships can be found at www.coventry.ac.uk/research/research-students/research-studentships/







Coventry
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Faculty of Engineering, Environment and Computing
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United Kingdom

Email: admissions.ec@coventry.ac.uk
www.coventry.ac.uk/research/research-students/

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