PhD Studentships in the Faculty of Engineering, Environment and Computing

Qualification type: PhD
Funding for: UK, EU and international students
Funding amount: Full studentships are available for outstanding candidates
Self-funded candidates are also considered
Length of study: 3 years full time/5 years part time

As an ambitious and innovative University, we're investing an initial £100m into our new research strategy, 'Excellence with Impact' and are currently awarding studentships to the most exceptional candidates across the following research areas:

The Centre for Flow Measurement and Fluid Dynamics leads research focusing on novel measurement techniques for complex and multi-component flows to allow end users to optimise their processes.

- Edge mining applied to wireless sensor networks for structural health monitoring

The Centre for Low Impact Buildings focuses on delivering research solutions to close the design versus as-built performance gap found in the built environment.

- Evaluating the quality of the internal environment in UK higher education buildings
- Building better schools by understanding the differences between student' and teachers' perception of internal comfort criteria
- Paving elements using the novel Aer-Tech material
- Development of cold-formed steel elements for sustainable building solutions
- Active living envelopes
- Investigation of a novel light-weight sustainable cementitious material
- Development of strength grading methods for round bamboo structures
- Assessing the mechanical stability of earthen structures by Yield Design Modeling (YDM)
- Ultrasonic treatment of waste pozzolans to improve cementitious property of binders
- Specialist conductive coating anode system for cathodic protection of steel in concrete structures
- Ultra high performance fibre reinforced concrete beams against torsion
- Thermal behaviour of ultra-high performance fibre reinforced concrete
- UHPFRC protective structures against impact and blast

The Centre for Mobility & Transport focuses on inclusive, sustainable and safe transport integrating the strongest research elements in design and engineering.

- Exploring design alternatives to scrappage of older cars
- Investigation of the inclusiveness of the design of new, green transport systems, services and infrastructure
- Investigation of the current and future mobility requirements of older travellers
- Measuring the quality of the journey experience of people who make complex trips
- Analysis of the barriers to women in transport
- Investigation of the requirements of future drivers in future driving scenarios
- Passenger comfort in the era of shared and automated mobility
- Motion sickness in automated vehicles – Designing for non-driving tasks

- Role of the visual appearance in public acceptance of automated vehicles
- Behavioural Validity and Reliability of Driving Simulation
- developing trust in automated vehicles
- CFD modelling of swirling flows in automotive aftertreatment systems
- Modelling flow and pressure losses in gasoline particulate filters
- Passive fuel cell hybridization for electric vehicles
- PhD studentship in high performance electric motors
- Wheel force estimation and control allocation using strain gauge measurements
- Flight performance & handling qualities assessment of Frederick Lanchester's 1897 Aeromachine
- Human centred design of angle of attack (AoA) systems

The Centre for Manufacturing and Materials Engineering's expertise lies in the successful delivery of research into materials and manufacturing processes for enhanced product performance.

- A fundamental study into novel methods to selectively metallise materials using a magnetic field to enable more sustainable processing in electronics, automotive, aerospace and other high value manufacturing sectors
- Assessing strength of joints for high pressure vessels
- Effect of microstructure and texture on crack propagation and residual stress stability in complex fatigue loading environments
- PhD studentships opportunities in collaboration with the International Joint Research Centre in Nuclear Safety
- Development of a 'Virtual Weld Predictor' (VWP)
- Sustainable Computerized Numerical Controlled (CNC) machining technologies
- Plasticity length-scale effects fundamentals: Investigate dislocation generation and mobility as a function of applied stress distribution and stacking fault energy
- Developing a formal manufacturing ontology to support knowledge sharing across multiple manufacturing domains

The School of Computing, Electronics and Maths offers world-leaving research in computer science and informatics. Our strengths are in the fields of Distributed Systems, Computational Intelligence, Serious Games and Cybersecurity.

- Robot homing deeply reinforced by another robot
- Ambient intelligent systems for modelling distributed cognition in dementia care
- Numerical magnetohydynamics on the stability analysis of liquid metal batteries
- Robot behavioural learning using interaction with a caregiver
- Hybrid Intelligent fusion for meeting feedback from affective state of participants
- Statistical physics of complex systems
- Real-Time user sentiment prediction for ambient aware personalised recommendation systems using deep learning spatial-temporal models
- Magnetohydrodynamic turbulence in extreme magnetic fields
- Task-specific recommender system for retrieval and reengineering of code
- A personalised healthy eating recommendation system based on ambient aware food selection modelling using computational intelligence approaches
- Services recommendations based on a dynamic IoS data driven method
- Intelligent Environmental Control Using Deep Neural Network and Reinforcement Learning

To view a full list of current studentships please visit www.coventry.ac.uk/research/research-students
For further information, please email our admissions team at admissions.ec@coventry.ac.uk.