

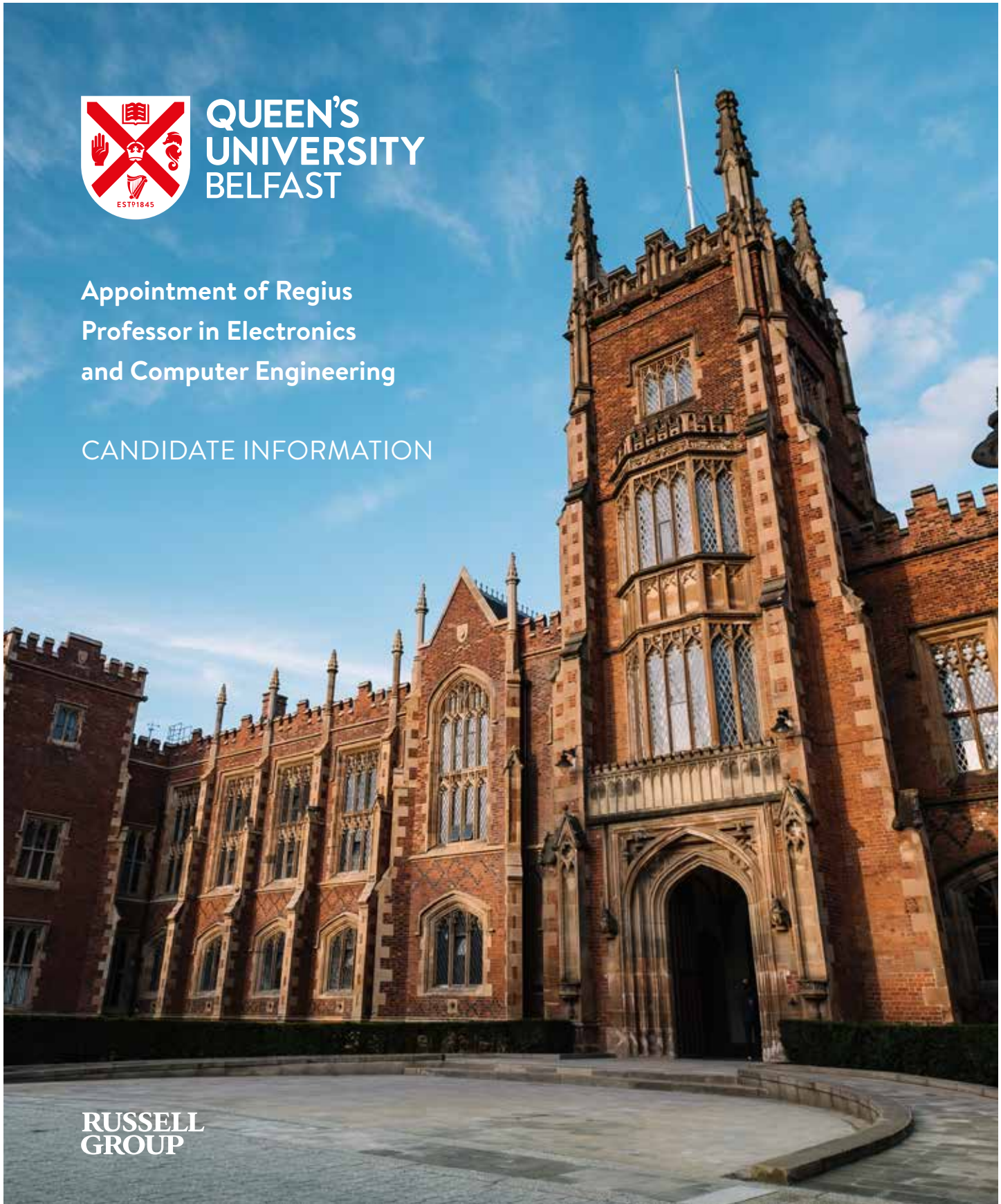


**QUEEN'S  
UNIVERSITY  
BELFAST**

**Appointment of Regius  
Professor in Electronics  
and Computer Engineering**

**CANDIDATE INFORMATION**

**RUSSELL  
GROUP**



Elizabeth

ELIZABETH THE SECOND BY THE GRACE OF GOD OF THE UNITED KINGDOM OF  
BRITAIN AND NORTHERN IRELAND AND OF OUR OTHER REALMS AND  
OUR DOMINIONS QUEEN, HEAD OF THE COMMONWEALTH, DEFENDER OF THE  
FAITH, TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING!

We are desirous that a mark of Our Royal Grace and Favour should be  
conferred upon the Professorship of Electronics and Computer Engineering in The  
Queen's University of Belfast in recognition of outstanding teaching and research  
achieved over the last thirty years.

It has been represented to Us by Our Secretary of State that  
a Professorship of Electronics and Computer Engineering in The Queen's  
University of Belfast amongst a number of Professorships upon whom Our Royal Grace  
shall be conferred.

We do hereby declare that We do approve good causes and consider  
that your special knowledge and experience do hereby for  
the purposes of the said Professorship in The Queen's University of Belfast  
and that We do hereby confer the said Professorship upon you.

It is Our pleasure that you should be appointed to the said Professorship  
and that you should be authorised to accept the said Professorship in The  
Queen's University of Belfast and that you should be authorised to accept the  
said Professorship in The Queen's University of Belfast.

Witness Our hand at St James's Palace this 15th day of June 1995.



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**SHAPING  
A BETTER  
WORLD  
SINCE 1845**

# Welcome

As Vice-Chancellor of Queen's University Belfast, I am delighted you are interested in the position of Regius Professor.

Queen's University is an exciting place. A place that delivers both local and international impact. Queen's is ranked in the top 180 universities in the world (QS World Rankings 2020), and is a member of the prestigious Russell Group of UK research intensive universities, combining excellence in research and education with a student-centred ethos.

We are based in Belfast, a modern capital city known for its welcome and accessibility and a great place to live and work. The city is outward-focussed and has recently secured a City Deal which will create up to 20,000 jobs and deliver a 10-year programme of inclusive economic growth across the region. We are immensely proud of what our city and our university can offer.

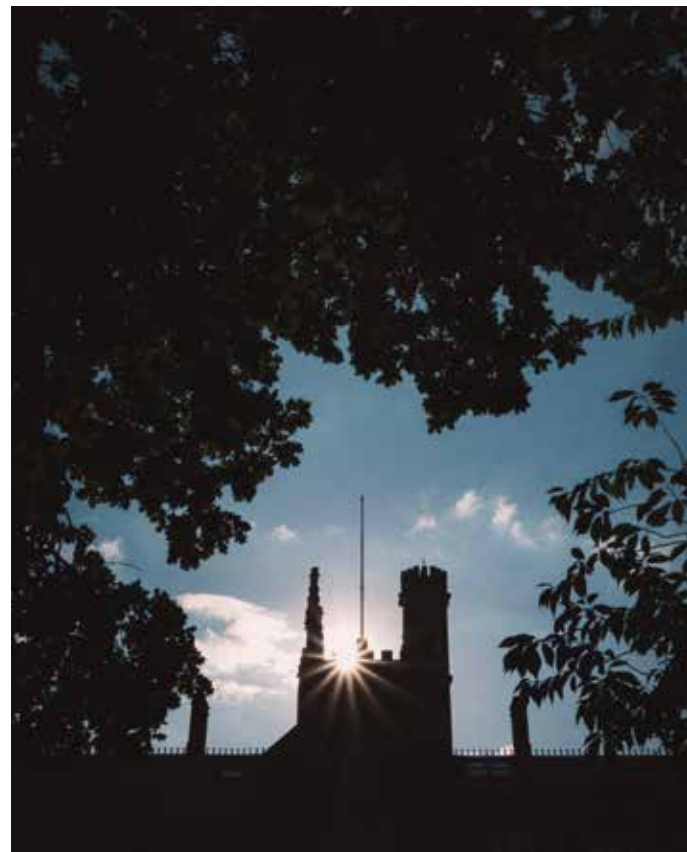
The University is on a transformational journey towards achieving the strategic ambitions contained within the Corporate Plan 2016-21. This Plan provides a roadmap for Queen's to achieve this ambition, building on its reputation as an internationally recognised university, conducting leading edge education and research, focused on the needs of society.

If you share our vision and have the experience, skills and passion we are looking for, I encourage you to apply and to join us on our exciting journey.

**Professor Ian Greer**  
President and Vice-Chancellor



# About the Regius Professorship



The title of Regius Professorship is a rare and prestigious award bestowed by the Sovereign to recognise exceptionally high quality research at an institution. It celebrates the important role of academic research in driving growth and improving productivity.

Queen's University received a Regius Professorship in Electronics and Computer Engineering in 2016 as part of the Queen's 90th birthday celebrations. The award was the first to be conferred on an institution in Northern Ireland and one of only 12 awarded to celebrate the Diamond Jubilee.

This award was the result of open competition judged by an independent expert panel of business and academic experts. The criteria used included:

- international research excellence
- the University's role in research translation and
- the benefit to the UK's economic effectiveness and productivity.

The application for a Regius Professorship was based on the activities and success of the Institute of Electronics, Communications and Information Technology (ECIT), one of the University's Global Research Institutes.

The University is now seeking to appoint a Regius Professor in Electronics and Computer Engineering following the retirement of the previous post holder, Professor Sir John McCanny CBE FRS FEng.

As the holder of this unique office, the Regius Chair will be a Professor of the highest international standing who has been recognised for research excellence and driving growth and productivity through their vision and excellence.

## The Role



The role of Regius Professor will attract a world leader who will help shape the digital and technological futures for the University.

The Regius Professor will:

- Provide the leadership needed to develop and grow important and disruptive areas of research that are recognised as being world leading consistent with the objectives of ECIT as a GRI;
- Lead research that is internationally excellent in terms of originality, impact, significance and rigour, recognised for example, by research publications in the top peer reviewed journals and major international conferences, major awards, fellowships, and prizes;
- Attract and mentor high quality academics, research staff and PhD students to continually grow and promote academic excellence;
- Provide leadership on the development of research facilities and research infrastructure in Electronics and Computer Engineering in support of the above;
- Enhance the international research reputation and performance of Electronics and Computer Engineering at Queen's University Belfast, set against international benchmarks;
- Take a lead role in the engagement with major research funders including the Research Councils, UKRI, Innovate UK, the EU and research charities securing the resources to achieve the above objectives;
- Develop strong links with learned societies, national and international academies including membership of relevant research panels and research bodies consistent with the nature of the post;
- Lead, develop and implement new international research strategies that facilitate enduring collaborations and the increased needed funding to support these;
- Maximise the impact of research including research translation, societal and economic impact;
- Provide leadership in the creation of a new Global Innovation Institute (GII), one of the projects contained within the Innovation & Digital Strand of the Belfast Region City Deal;
- Support the development of Northern Ireland as an advanced technology research region with international impact and ambition, harnessing the knowledge and expertise of Queen's University Belfast staff to influence and inform Government policy, locally, nationally and internationally;
- Contribute to the effective management and administration of the ECIT Global Research Institute as appropriate and as required, consistent with the nature of this post.

# The Person

The Regius Professor will be required to demonstrate:

- Significant standing as an international leader for research, innovation and scholarship with associated impact, in the field of Electronics and Computer Engineering with an established track record at professorial level;
- Successful team leadership, mentoring and developing early career academics and identifying and developing key talent at all levels;
- Experience of leadership in driving a successful agenda of innovation and developing a vision for future technological invention in academia and for industry;
- Successful delivery of cross disciplinary and cross sectoral research and innovation including partnership with industry and Government;
- Highly developed influencing and negotiating skills, with the ability to engage at all levels including peers, senior institutional leadership, early career academics, Government, policy makers and new and existing external industry partners;
- Extensive professional network of colleagues, holding membership roles across a range of academic and/or industry bodies, ideally serving on relevant national and international committees and advisory bodies;
- A proven track record in successfully engaging with local/regional/national/international funding bodies, specifically with substantial UK Research Council funding body experience;
- An in depth understanding of the challenges, opportunities and strategic issues facing higher education and the digital technologies sector; (remove remainder of text in this point)
- Evidence of being a proactive and dynamic individual with the ability and vision to help shape the future direction of the University and its culture



# School of Electronics, Electrical Engineering and Computer Science

The School of Electronics, Electrical Engineering and Computer Science (EEECS) is one of the largest and most dynamic Schools in the University, with a future mission to enhance the way we use technology in communication, health services, data security and many other related areas.

## **Inventing tomorrow today.**

The School has over 200 staff members who teach, mentor, lead and conduct outstanding inter- and multi-disciplinary research, 80% of which is judged to be internationally excellent or world leading (REF 2014).

Research is conducted across the Queen's Global Research Institute on Electronics, Communications and Information Technology (ECIT), the Pioneer Research Program on Intelligent Advanced Manufacturing Systems (iAMS), and overlapping disciplinary research themes:

- ECIT, based at Catalyst Inc. (formerly the Northern Ireland Science Park), specialises in the research themes of Cybersecurity, Wireless Communications and High Performance and Scalable Computing.

- The new £14 million Computer Science Building on Malone Road is home to the Computing Systems, Artificial Intelligence and Education and Society research themes. This is the core location for UG and PGT computer science and software engineering programmes, catering to a population of approximately 1,500 postgraduate and undergraduate students.

- The Ashby Building accommodates the research theme of Energy, Power and Intelligent Control research and the Pioneering Research Program in Intelligent Autonomous Manufacturing Systems. This is also the core space for the delivery of UG and PGT electrical and electronic engineering programmes.

The School has over 500 active industry partnerships and its research creates societal and economic impact, while generating hundreds of jobs in the local economy. Industry is extensively involved in all the School's courses through embedded teaching, placement or scholarships. Most of our undergraduates spend one full paid year working in industry as part of their degree. On average, employment success rates for graduates from the School are greater than 85% within six months.

EEECS has been accredited with both an Investors in People Silver Standard, in recognition for efforts in developing people to excel, be deep thinkers and future leaders, and an Athena SWAN Silver award for our commitment to advancing representation of minorities in STEM subjects and for ensuring equality and inclusion to all.

You can learn more about the School at; [qub.ac.uk/schools/eeecs/Discover/WelcometoEEECS](http://qub.ac.uk/schools/eeecs/Discover/WelcometoEEECS)



# Institute of Electronics Communications and Information Technology (ECIT)

Established in 2004, the Institute of Electronics Communications and Information Technology (ECIT) is the research anchor tenant of Catalyst Inc. (formerly the Northern Ireland Science Park), an innovation campus, which is home to almost 200 high tech companies employing 3,000 engineers and knowledge workers.

Designated as one of the University's Global Research Institutes, ECIT has world leading research capability in Wireless Communications, Cybersecurity, Scalable Computing and Data Science.

It incorporates three complementary but overlapping research centres: The Centre for Secure Information Technologies (CSIT), the UK's Innovation and Knowledge Centre for research in cybersecurity; the Centre for Wireless Innovation (CWI); and the Centre for Data Science and Scalable Computing (DSSC). Jointly these centres pursue research on the technologies that will underpin the future digital society and the ways people live, move, work, and communicate.

Since 2004, ECIT has attracted over £120 million of competitively won research funding and its success has been recognised through many awards, including a Queen's Anniversary Prize for Higher and Further Education and Regius Professorship.

Its academic excellence is reflected in many Fellowships, medals and

awards from the foremost national academies and international learned societies (notably the Royal Society, the Royal Academy of Engineering, the Royal Irish Academy, the Leverhulme Trust, IEEE, ACM and the IET). In REF 2014, 93% of its research was judged to be world leading or internationally excellent.

ECIT has a very successful model for university research translation. To date, it has created 11 new start-up companies, including Titan IC Systems, Analytics Engines, Sensurity and Liopa, and has incubated 25 spin-in companies. In addition, the establishment of CSIT as a UK Innovation and Knowledge Centre has been a nucleating point for the creation of a rapidly growing cybersecurity business cluster which currently has over 40 companies, creating 1600 advanced technology jobs.

Over the next five years, ECIT will play a key role in the Belfast Region City Deal, specifically in the area of Digital and Innovation with the anticipated creation of a Global Innovation Institute, the aim of which is to enhance Belfast's role as a global destination for digital research and innovation. This will bring around £350 million of government funding from Westminster to develop capacity and capability in some of our key research areas, including computer science, recognising the crucial role the University plays as a driver of economic growth.

## ECIT Timeline

**2004**

ECIT established

**2009**

Centre for Secure Information Technologies (CSIT) established following £30m EPSRC and InnovateUK Funding

**2015**

ECIT designated a Global Research Institute (GRI)

**2016**

Awarded Queen's Anniversary Prize for Higher and Further Education

**2016**

Awarded Regius Professorship

**2017**

CSIT leads the £5m EPSRC Research Institute in Secure Hardware and Embedded Systems (RiSE).

**2018**

CSIT selected to partner with Plexal and Deloitte to create £13.5m LORCA London Innovation Centre for Cybersecurity



# Faculty of Engineering and Physical Sciences

The Faculty of Engineering and Physical Sciences (EPS) comprises one Global Research Institute (GRI) and six Schools – Mathematics and Physics; Electronics, Electrical Engineering and Computer Science; Chemistry and Chemical Engineering; Mechanical and Aerospace Engineering; Natural and Built Environment; and Psychology.

In the REF 2014 exercise, the Faculty submitted 100 per cent of its academic staff to 7 of its 10 Units of Assessment (UoA). EPS has an outstanding foundation of disciplinary research in basic science and engineering. Coupled with excellent industrial connections and practical application of research, the Faculty is building ambitious programmes to address multi-disciplinary research challenges.

To further support the growth in multi-disciplinary challenged based research, EPS has established three Pioneer Research Programmes (PRPs), in Sustainable Energy, Radiation (CAIRR) and Autonomous Manufacturing (iAMS). These are all cross-school and interdisciplinary, with CAIRR also reaching into Pharmacy in the Faculty of MHLs. The PRPs specifically address recognised global challenges in Energy, Personalised Medicine, and Advanced Manufacturing (Industry 4.0).

Research in EPS has significant and strong connectivity with industry. Links include: the Northern Ireland Advanced Composites and Engineering Centre (NIACE) which connects aerospace researchers with regional aerospace manufacturing; and a long established relationship with Seagate which has resulted in the ANSIN centre, which is a leading unit for advanced photonic research with industrial applications.

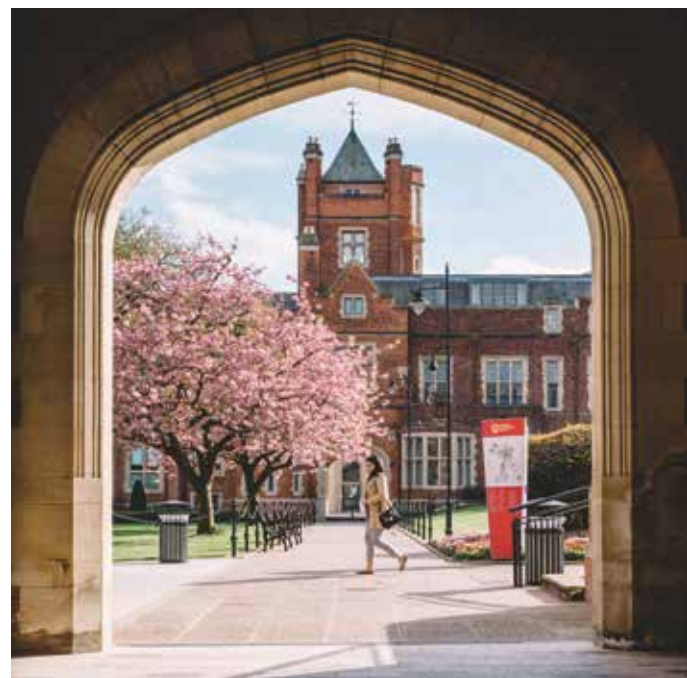
The Wrights Group have invested £6 million in a new Technical Centre at Queen's in recognition of the contribution our research has made to the success of the London Routemaster. In the area of sports, the Movement and Innovation lab, which brings the Psychology team and Virtual Reality systems together, has been embedded in Ulster Rugby's training facilities and we are now working with the England Cricket team. In addition to these flagship activities there are a number of major projects with companies such as Radox, Petronas, Airbus and Rolls-Royce.

The Faculty has links across the globe and is currently leading a consortium of UK Russell Group Universities to build major collaborations with the top engineering institutions in China.

Schools in the Faculty are at the forefront of implementing practices and policies that recognise and promote the advancement of women in science, technology and engineering disciplines. All have an active engagement with Athena SWAN. Five Schools hold Athena SWAN Silver awards and Psychology hold a Gold Award.

You can learn more about the Faculty at:

[qub.ac.uk/about/Leadership-and-structure/Faculties-and-Schools/Engineering-and-Physical-Sciences](http://qub.ac.uk/about/Leadership-and-structure/Faculties-and-Schools/Engineering-and-Physical-Sciences)



# About Queen's

Queen's is one of the leading universities in the UK and Ireland with a distinguished heritage and history. A member of the Russell Group, we are ranked in the top 180 universities worldwide (QS World University Rankings 2020). With an annual turnover of some £350 million, over 24,000 students and 4,000 staff, our university plays a unique leadership role in Northern Ireland.

## World-leading Research

Queen's is ranked 8th in the UK for Research Intensity with over 75% of our research assessed as 'world-leading' or 'internationally excellent' in REF 2014.

In research innovation, our impact has been recognised by six Queen's Anniversary Prizes, the most recent one for our work on cyber security worldwide.

Our four Global Research Institutes (GRIs) bring researchers from different disciplines together on a scale that enables them to tackle major societal challenges.

These are:

- The Institute of Electronics, Communications and Information Technology (ECIT);
- The Senator George J. Mitchell Institute for Global Peace, Security and Justice;
- The Institute for Health Sciences;
- The Institute for Global Food Security.

Together with six Pioneer Research Programmes, the GRIs involve interdisciplinary collaboration among researchers across the University, as well as with partners in other institutions and from outside the academic world, regionally and globally.





### **Innovation and Impact**

Queen's is a driver of innovation and talent based on excellence. We are globally connected and networked with strategic partnerships across the world, helping us to expand our impact on wider society locally, nationally and globally.

We are a major driver of economic growth, contributing over £1.9 billion to the economy. For every £1 million of research spend at Queen's, £3.9 million of economic impact is generated.

We are leaders in commercial impact and are one of the five highest performing universities for intellectual property commercialisation with a total value of £13.2 million IP and equity income. Through QUBIS Ltd, our commercial arm, we have created over 80 spin-out companies, resulting in some 2,200 knowledge-based private sector jobs.

Three of these companies – Kainos, Andor Technology and Fusion Antibodies – have been publicly listed on the London Stock Exchange.

We are number one in the UK for our participation in Knowledge Transfer Partnerships (KTPs). We currently have over 50 live KTP projects, our highest ever number and the first UK university to achieve this.

### **Queen's Community**

Queen's is ranked 16th in the world for international outlook and is attracting global talent to Belfast.

We currently have staff and students from over 80 countries, helping to create a multicultural and vibrant campus. They are joining a university that is committed to attracting, retaining and developing the best global talent within an environment that enables them to realise their full potential.

An innovative, welcoming and inclusive place to work and study, Queen's is a leader in gender equality and diversity.

We are one of the UK's most successful universities in the Athena SWAN initiative which promotes gender equality and career progression. We currently have two Gold, eight Silver and six Bronze departmental awards, as well as an Institutional Silver.



## Queen's and Northern Ireland

Belfast is the capital of Northern Ireland and is one of Europe's most friendly and fashionable regional cities. Lonely Planet described Belfast and the Causeway Coast as the number one region in the world to visit in 2018.

Northern Ireland is renowned for its beautiful beaches and coastal scenery.

It has a fascinating history and cultural heritage and is known as the country that built the Titanic, has the world-famous Giant's Causeway and world class golf.

People from all over the world are now making an important contribution to life here – in medicine, business, industry, science, education, sports, music and the arts.

Queen's University is proud to be a driving force in Northern Ireland's cultural, artistic and economic renaissance, celebrating the innovation and creativity of its people and enhancing its reputation as an international centre of learning.

Travelling to and from Northern Ireland is both easy and economical. Most major British cities are within an hour's flying time from Belfast's two regional airports, which are both easily accessible from the University. These airports provide flights from many locations in the UK and mainland Europe as well as North America.

Belfast has regular ferry services from Scotland and England, and Dublin is just a two-hour train journey away. As a compact, easily accessible city which is rich in culture, it is easy to see why many visitors chose to make the region their home.

# The Main Terms of Appointment

It is anticipated that the successful applicant will be able to take up the post of Regius Professor as soon as possible, subject to existing contractual obligations.

An attractive remuneration package, commensurate with the seniority and responsibilities of the role, will be provided. The successful candidate will also be eligible to join the Universities Superannuation Scheme (USS).

There will be flexibility around this appointment to facilitate candidates who wish to hold position within business/industry.

## HOW TO APPLY

For further information and instructions on how to apply, please contact

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Tel: +447408851596  
email: natalied@wittkieverinternational.com

Mary Comer  
Tel: +447408850797  
email: maryc@wittkieverinternational.com

The deadline for applications is Friday 11 October.



## Key Dates

Anticipated interview date: Wednesday 27 November 2019

## Key Documentation

More information on Queen's is available in the following documents:

- Queen's University Corporate Plan 2016-21
- Vice-Chancellor's Annual Report 2017-18
- Financial Statements 2017-1
- Our Commitment to You: Students' Union Strategic Plan 2015-20
- Research at Queen's 2016-21
- People and Culture Strategy: People First





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[qub.ac.uk](http://qub.ac.uk)