

Academic Role Profile

Job Title:	Reader
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Responsible to:	Head of ICS/5GIC
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Responsible for:	Research and support staff employed on projects for which the post holder is Principal Investigator, and students on programmes and awards that are the responsibility of the post holder.
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Job Summary and Purpose

To make a significant contribution to the advancement of own specialist area which is recognised at national and international level. To undertake research in line with the Faculty's research strategy and to contribute to undergraduate and postgraduate teaching programmes.

Main Responsibilities/Activities

To develop the research activities of the Faculty and the University (in collaboration with others in the discipline where appropriate) by:

Demonstrating leadership in research, including postgraduate research supervision.

Planning, co-ordinating and leading research activities in accordance with a specific project plan through a research team or a group of staff involved in research. Managing the financial and physical resources associated with the research activities. Supervising and guiding the work of staff and research and doctoral students on own specialist area.

Leading innovative research proposals and submitting funding bids, winning support for them and planning the research to be taken, self-contained item or as part of a broader programme. Obtaining and sustaining research funding.

Sustaining an extensive track record of published research findings in high quality journals, or other media and at internationally recognised conferences.

Maintaining an expert reputation in own subject area and providing advice and guidance to staff and students.

Engaging in external academic activities in accordance with the Faculty's research strategy at a national level and international level. Such activities will include membership of committees of academic and professional bodies, external examining, editing journals and contribution to professional networks, national and international meetings, societies and bodies (including

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governmental bodies).

Sustaining and developing professional expertise and maintaining the requirements for registration with the appropriate body (*for academics with clinical links only*).

To support the teaching activities of the Faculty by:

Leading/developing teaching methods, designing undergraduate and postgraduate programmes, pursuing new teaching approaches.

Teaching, training and supervising students (including research students), tutor industrial/professional training year students and external examining according to own area of subject specialism.

Setting/marking programme work, practical sessions, supervisions, fieldwork and examinations according to own area of subject specialism.

Taking part in activities such as validating and examining in relation to the University's associated institutions.

To engage in scholarship by:

Continually updating knowledge and understanding in the field or specialism. Extending, transforming and applying knowledge acquired from scholarship to teaching, research and appropriate external activities.

To undertake pastoral care of students by:

Using listening, interpersonal and pastoral care skills to deal with sensitive issues concerning students and provide support. Appreciating the needs of individual students and their circumstances. Acting as personal tutor and giving first line support. Taking responsibility for dealing with referred issues for students within own educational programmes, and providing first line support for colleagues, referring them to sources of further help if required.

To contribute to the efficient management and administration of the Faculty, the University and the wider academic community by:

Performing personal administrative duties such as research group leader and roles associated with teaching programmes, as allocated by the Head of Faculty and contributing to the general life and work of the University.

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Person Specification

The post holder must have:

It is essential that the post holder possesses a higher professional qualification, normally a doctoral degree

Demonstrated outstanding qualities and achievements in scholarship and research at a national and international level

Significant academic publication recorded in refereed journals

Evidence of leadership in research, including postgraduate research supervision

Evidence of a record of sustained research funding

Evidence contributions to conferences, professional meetings and societies at an international level and evidence of achievements in other external activities at an international level

Evidence of high quality teaching at undergraduate and postgraduate level

Relationships and Contacts

The post holder will take a leading role in the setting of strategic objectives for their research theme. New appointees will be assigned a senior colleague to guide their development and aid their integration into the Faculty and into the University. Teaching and administrative duties will be allocated by the Head of Faculty, and will include roles related to both taught programmes and research activities across the Faculty.

Special Requirements

To attend national and international conferences for the purpose of disseminating research results. To be able to participate in residential field work, in the UK or overseas, according to own area of subject specialism.

To lead major funding bids, which develop and sustain research support for the specialist area and advance the reputation of the Faculty and University.

The post holder is expected to work outside normal office hours as necessary.

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.

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- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
 - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

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Addendum

This document provides additional information relating to both specific aspects of the post/Faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

Job Title:	Reader in Network Security
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Background Information/Relationships

Faculty:

The University of Surrey is organised into three Faculties. The Faculty of Engineering and Physical Sciences (FEPS) comprises the Departments of Chemical and Process Engineering, Civil and Environmental Engineering, Computer Science, Electronic Engineering, Mathematics, Mechanical Engineering Sciences and Physics alongside the Centre for Environmental Strategy. All departments have a strong reputation for excellence in research and teaching, allied to a strong enterprise culture and an unrivalled record of graduate employment. Our members of academic staff are well respected, both nationally and internationally, amongst the many areas of academia and industry with which we interact. We believe strongly in the principle that a university should contribute to the cultural wealth of society by developing the basic sciences, whilst also developing the technology which will improve our overall quality of life.

ICS and EEE Department:

Institute for Communication Systems (ICS) and 5G Innovation Centre (5GIC) are within the Department of Electronic and Electrical Engineering (EEE). ICS has around 18 FTE academic staff and about more than 170 PhD, Postdocs. ICS research covers all aspects of Communication networks and systems. The communication systems range from Mobile communications, Satellite communications and broadcasting, Internet of Things, Connected Cars and Internet with extensive research on radio, antenna, propagation, MIMO, Core Network architectures and protocols. 5GIC is within ICS and is the world's first dedicated 5G centre on end to end aspects of future 5G system. ICS/5GIC enjoys close collaboration with industry in the UK, Europe and the rest of the world. 5GIC has developed many technologies including completely virtualised and programmable core network, massive MIMO base station and in addition to theoretical and fundamental research carried experimental research in 4km square open testbed on campus. ICS labs are equipped with state of the arts equipment and computing for research and proof of concepts for all aspects of a communication system.

The successful candidate will have a strong track record in research in network security and provide leadership within the research team. Suitable areas of expertise that complement current strengths of the group include (but are not limited to): communication network security. Security in NFV and virtualised networks, DDoS, anti-malware security, adversarial machine learning, risk management and threat modelling, trusted systems.

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Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

	Essential/ Desirable
A higher research degree (PhD)	E
World class research performance (incl. an exceptional and continuing publication record, and a proven and continuing strong track record of external research grant income generation)	E
A proven track record in academic leadership	E
A proven track record in successfully supervising PhD students	E
Evidence of high quality teaching	E
Evidence of scholarly contributions to conferences, professional meetings and societies at an international level, and evidence of achievements in other external activities at an international level	E
Excellent communication, inter-personal and networking skills	E
Demonstration of developing of industrial collaborations	E
Evidence of innovation in attracting external income	E

Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Job Purpose.

1. Make a significant leadership contribution to the research direction of the ICS/5GIC to ensure its future sustainability and research impact.
2. Work with the testbed team and network group within the ICS to develop new research directions.
3. Make a significant contribution to the Faculty's strong research profile and to appropriate postgraduate and undergraduate teaching programmes.
4. Develop strategic partnerships nationally and internationally.
5. Provide leadership in developing industrial and government collaborations for the ICS/5GIC.
6. Mentor junior colleagues within the Department to develop their research potential and support their career development.
7. To contribute to the teaching of state of the art Network Security and core topics in Communication Networks and to develop new ideas for teaching in this area.

N.B. The above list is not exhaustive.