

Post Details		Last Updated 18/02/2018	
Faculty/Administrative/Service Department	Faculty of Engineering & Physical Sciences (FEPS) Institute for Communications Systems (ICS)		
Job Title	Test Bed Manager		
Job Family	Technical and Experimental	Job Level	5
Responsible to	Chief Architect		
Responsible for (Staff)	Testbed Step out managers.		
<u>Job Purpose Statement</u>			
Responsible for the management, commissioning, maintenance and evolution of the 5G Innovation Centre Test-bed and its associated R&D programme of work, the post holder oversees the development of the equipment used to create and maintain the Test-bed and the management of the Step out Testbed Manager(s) and test activities & maintenance of the test-bed.			
<u>Key Responsibilities</u>			
<ol style="list-style-type: none"> 1. Advising on the day to day scheduling and operation of the 5G Test-bed. 2. Providing a key point of contact with industry contributors and users of the test bed. 3. Working with the Test-bed Management Team under the guidance of the Chief Architect to support new Project Uses and business opportunities for the test bed. 4. Provide guidance and support to the 5G Test-bed technical staff in coordination with the Test-bed Management Team. 5. Manages the Step out Testbed Manager(s) to ensure the project is delivered in a timely manner. 6. Manages the day-to-day activities of the contractors and installation of testbed RAN parts of the test-bed to ensure that the project is on track and utilises resources effectively and efficiently+ <p>N.B. The above list is not exhaustive.</p>			
All staff are expected to:			
<ul style="list-style-type: none"> • Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities Policy. • Work to achieve the aims of our Environmental Policy and promote awareness to colleagues and students. • Follow University/departmental policies and working practices in ensuring that no breaches of information security result from their actions. • Ensure they are aware of and abide by all relevant University Regulations and Policies relevant to the role. • Undertake such other duties within the scope of the post as may be requested by your Manager. • Work supportively with colleagues, operating in a collegiate manner at all times. 			
Help maintain a safe working environment by:			
<ul style="list-style-type: none"> • 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. 			
<u>Elements of the Role</u>			
<u>Planning and Organising</u>			
<ul style="list-style-type: none"> • The post holder will be responsible for managing the 5G Test-bed and its associated test programme based on approximately £15m of installed capital equipment. This will require intensive project management and will involve dealing with teams of specialists made up from both University technical staff and service support staff from industry partners. • The post holder will be responsible for working with the Test-bed Management Team to architect, plan, document and organise different parts of the 5G Test-bed project 			
<u>Problem Solving and Decision Making</u>			
<ul style="list-style-type: none"> • The post holder is expected to operate with a degree of autonomy, with minimum referral to the Chief Architect. • The post holder will resolve potential conflicts in individual technical projects to maintain alignment with overall 5G strategy. This will potentially require resolution of technical issues whilst recognising and being sensitive to pressures on individual technical and research staff. • Development and operation of the 5G Test-bed will require technical and project management skills as well as 			

dealing directly with 5G Industry partners. The ability to resolve internal resource and technical issues whilst maintaining positive external relationships is a key part of the role.

- The post-holder must be capable of making difficult decisions on how best to allocate available resources to individual companies or particular research projects to best fit with changing strategic priorities with guidance from the Chief Architect.

Continuous Improvement

- The post holder must be able to test and commission the 5G Test-bed to maintain quality of outputs to provide basis for the University to expand its activity with industry partners and other research institutions.
- The post holder must ensure that the 5G test bed is maintained in high degree of working order and that it develops in line with the likely rapid evolution of 5G technology.
- The post holder will develop a streamlined programme management and reporting mechanism to cope with the 5G Test-bed R&D programme with the guidance of the Chief Architect.

Accountability

- The post holder will manage 5G Test-bed to deliver first class outputs to industry partners and to research funding bodies. The post holder will be expected to do this with limited regular supervision, following regular strategic review. Typically, the post holder will be expected to give formal monthly or quarterly update summaries.
- The post holder will be responsible for the operation and development of the 5G Test-bed with limited guidance from Chief Architect. This is a technically demanding aspect of the role and the post holder will be accountable for technical decisions in this area.
- The post holder will also ensure that the 5G Test-bed phases are delivered within budget, with the support of the 5G Technical Architect.
- Delivery of the Stepout Test-beds to agreed Project scope drafted by Testbed Team

Dimensions of the role

Typically, the post holder will:

- be responsible for managing up to 10 x separate research projects running on the 5GIC testbed at any one time.
- have line management responsibilities for up to 2 other direct reporting testbed staff, including local 5GIC and step-out testbed staff.
- be responsible for coordinating with other UoS departments in respect of the testbed maintenance, upgrade and evolution, including UoS and FEPS IT, FEPS Facilities, E&FM
- be responsible for coordinating with external contractors and suppliers in respect of the testbed maintenance, upgrade and evolution, including UoS and FEPS IT, FEPS Facilities, E&FM
- be responsible for the development of themselves in association with the Chief architect and their own staff
- have budgetary responsibilities for testbed evolutions of up to £1m as part of their work on testbed projects
- be responsible for the 5GIC test-bed and step-out testbed(s) Hardware and Software Asset Management that has financial value of up to £15M.
- be responsible for legal and safety maintenance of the ICS testbeds in association with the 5GIC management team (5GIC Director, Chief Architect ICS Finance lead, and project managers and the FEPS safety representative).
- Be responsible for new OFCOM licencing applications and ongoing yearly maintenance licenses, on a yearly basis in association with the 5GICmanagement team.
- be expected to organize and supervise all the administrative activities that facilitate the smooth running of the testbed, current testbed projects and the testbed team staff. This involves a range of administrative responsibilities, specific to the testbed team including managing the testbed hardware and software, maintaining documentation on assets and asset operation and maintenance and logging of all RF transmission activity on licences spectrum and issue logging and issue resolution with suppliers.
- be responsible for overseeing the Human Resource Administration Management of their team, including holidays, absences and staff development, under the guidance of the Chief Architect and the ICS admin team.
- support the Chief architect in developing the 5GIC testbed strategy

Supplementary Information

- Recent government reports on the HE sector, such as the influential Witty review, have placed emphasis on UK universities acting as “engines of the economy”. Both BIS, HEFCE, DCMS are developing new funding streams which will increasingly favour high quality research programmes with the capacity for significant economic impact and the 5G IC is considered as an exemplar in this regard.

Person Specification		
Qualifications and Professional Memberships		
Relevant degree or equivalent HNC/HND (in Electronics Engineering or Computer Science) / Postgraduate qualification HNC/HND or equivalent experience in handling the type of equipment which will be installed in the 5G test bed together with a proven track record in leading a test department/function.		E
Professional qualification (in Electronics Engineering or Computer Science)		E
Professional Project Management Qualification		D
Technical Competencies (Experience and Knowledge) This section contains the level of competency required to carry out the role (please refer to the Competency Framework for clarification where needed and the Job Matching Guidance).	Essential/ Desirable	Level 1-3
Hands-on Mobile and Network equipment testing and commissioning	E	3
Experience as a senior test-bed manager including financial management	E	3
Hands-on understanding of WAN IP and local IP LAN working	E	3
Relevant experience in a research, business or service environment (Network Equipment Vendor, Operator or Software service markets)	E	3
Detailed operational knowledge of LTE/ 5G architecture, protocols, functionality and capabilities	E	2
Experience in supervising/working with reporting test engineers and interworking with R&D teams.	E	2
Experience of commissioning Mobile Network RAN and Core Network equipment from at least 2 vendors: e.g. Huawei, Ericsson, Nokia Base stations and core equipment.	E	2
Experience of commissioning Mobile Network equipment using CLI and OMC interfaces.	E	2
Worked with (3GPP Rel-13+) features in mobile networking.	E	2
Experience of Mobile Network Optimisation	E	2
Working Knowledge of LTE/ 5G RAN and CN equipment	E	2
Have worked on or have working knowledge of Self Organising Network based optimisation systems.	D	n/a
Operational knowledge of LTE/ 5G	D	n/a
Previous experience in parallel computing and data analytics (e.g. VMware configuration and usage, Oracle Configuration and usage)	D	n/a
A good working knowledge of the Further Education and Higher Education sector	D	n/a
Knowledge, understanding & application of European Commission Framework in project preparation, execution and reporting	D	n/a
Special Requirements:		Essential/ Desirable
Must be prepared to travel throughout the UK and internationally		E
Must be able to drive		E
Core Competencies		Level 1-3
Communication		3
Adaptability / Flexibility		3
Customer/Client service and support		2
Planning and Organising		2

Continuous Improvement	2
Problem Solving and Decision-Making Skills	3
Managing and Developing Performance	2
Creative and Analytical Thinking	2
Influencing, Persuasion and Negotiation Skills	2
Strategic Thinking & Leadership	2

This Job Purpose reflects the core activities of the post. As the Department/Faculty and the post holder develop, there will inevitably be some changes to the duties for which the post is responsible, and possibly to the emphasis of the post itself. The University expects that the post holder will recognise this and will adopt a flexible approach to work. This could include undertaking relevant training where necessary.

Should significant changes to the Job Purpose become necessary, the post holder will be consulted and the changes reflected in a revised Job Purpose.

Organisational/Departmental Information & Key Relationships

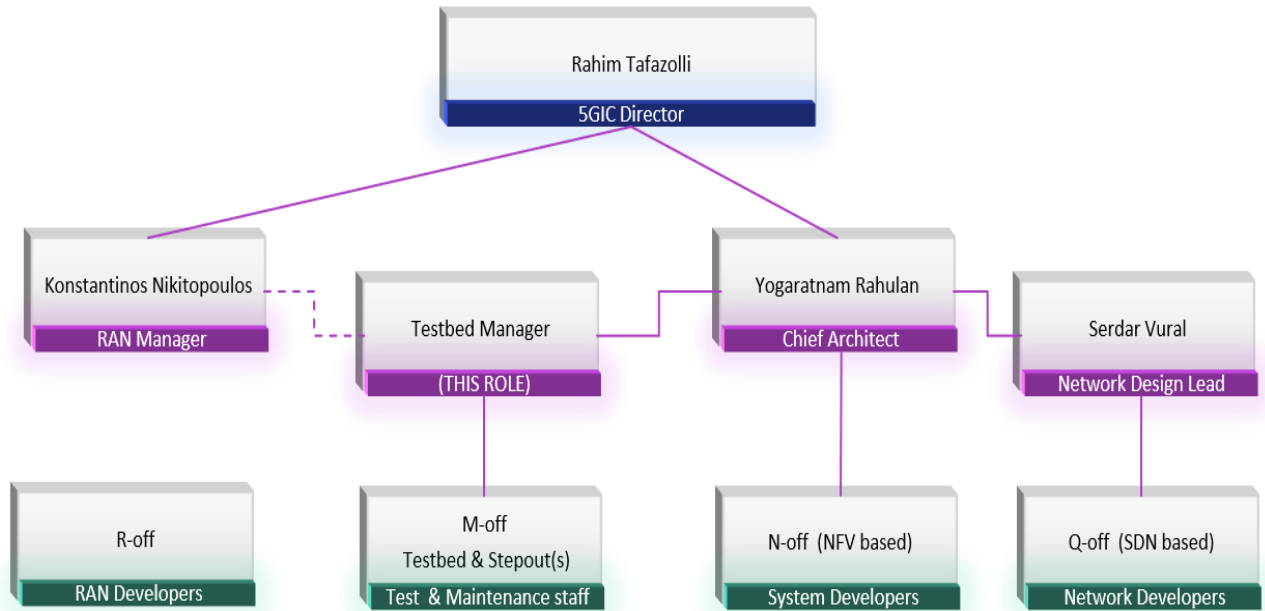
Background Information

The University of Surrey ranks in the top10 of UK University league tables. The Faculty of Engineering and Physical Sciences has within it a number of leading research groups one of which, the Centre for Communications Systems and Research, has consistently ranked as Europe's leading academic research organisation in the field of mobile telecommunications and internet technologies.

Surrey has now been successful in winning £multi-million bids to DCMS(UK) and EU programs in securing the 5G Innovation Centre and Innovation Gateway programmes respectively. The University has also been awarded additional funding from the Enterprise M3 Local Enterprise Partnership to provide additional support both of these programmes. The objective is to create maintain and evolve the world's foremost academic research and innovation centre in future mobile communications and internet technologies and in the use of telecom "Big Data" in developing advanced technologies.

The programme includes close collaboration with 17 multinational telecommunications industry partners, all of which have contributed significantly to the R&D programme. Other partners include the Connected Digital Economy Catapult (CDEC) and strong internal University links and external: Kings College and Bristol, university links.

Department Structure Chart



Relationships

Internal

The post holder will primarily liaise with members of the 5G project team (5G Management team and staff) as well as other associated research staff within ICS and 5GIC partners that are currently involved with the testbed. The post holder will have regular contact with the University IT and Facilities team to coordinate IT maintenance, updates and expansions.

External

The post holder will liaise regularly with the 5G partners which will require significant technical and project management skills.