



Job Description

Lecturer in Communications & Networking

Location : London

Department: Electronic & Electrical Engineering

Salary: Grade 8

Reference : 1880121

2 positions available

Reports to:

Head of Department of Electronic and Electrical Engineering currently Professor Sarah Spurgeon

Context

The Department of Electronic and Electrical Engineering (EEE) at UCL is recognised as one of the leading Departments for research in its subject area, worldwide. To further enhance and shape the future of research in Electronic and Electrical Engineering at one of the leading and most prestigious Universities in the UK, the Department wishes to make two appointments at Lecturer level to start from 1st January 2022 or as soon as possible thereafter.

We seek candidates to join the Information and Communications Engineering Group (ICEG), with a proven track research record in the areas of communications and networking, both wired and wireless. We expect the candidate to contribute the *Internet 2050* vision of UCL's Institute of Communications and Connected systems and join our world leading researchers in contributing to that vision. Areas of particular interest include, but are not limited to:

- Security and privacy in communications
- Artificial Intelligence driven network control
- Network Management

- Wireless networks and future heterogeneous systems
- Implementation and deployment of network systems in testbed and "in the wild"
- Technologies for Internet access in the developing world

For these appointments, we seek candidates to join the Information and Communications Engineering Group (ICEG), with experience in the area of communication and data networks. ICEG is an internationally leading research group with a focus on wireless communications, data and TCP/IP networks, multimedia and the use of machine learning for connected systems. The group has strong fundamental and experimental focus and seeks to strengthen such focus with the new appointments. Current research challenges include the design of secure and resilient networks, design and experimentation on practical interactive applications, and design for privacy in networks, future Internet architectures, signal and systems design for future wireless communications links and networks, use of machine learning for new applications including connected health systems, transports, security and the arts . We have state-of-the art facilities and laboratory and the ability to carry out research from communication circuits, high-speed transmission over variety of links from mm wave to optical, IoT test bed. The appointee will be expected to play a full part in the life of the Institute of Communications and Connected Systems.

We would expect the candidate to contribute to a range of teaching within the department and the faculty including but not limited to teaching programming, computer networking and network security, Internet of Things (IoT) technologies, and/or wireless system, at undergraduate and postgraduate level.

Applicants should have a record of conducting internationally-leading research along with an outstanding publications record. The ability to inspire students and young researchers to achieve their full potential is also of great importance to us.

Main purpose of the job

The primary task of the person(s) appointed will be: to undertake world-class research in her/his area of research and contribute to the teaching programme in the Department of EEE. The appointee will perform the normal administrative duties expected of a member of academic staff as required by the Head of Department.

Duties & Responsibilities

Research: The persons appointed will be responsible for the initiation of new research areas; the participation, coordination or leadership of research consortia involving other academic staff; becoming key partners in new national and international funded collaborations; and managing bids for such funding. The postholders will:

- Conduct a vigorous, high-level personal research programme in the area of EEE;
- Publish high-profile refereed journal papers and participate in national and international conferences;
- Generate research outputs of the highest quality suitable for inclusion in UCL's submissions to REF (Research Excellence Framework) or other systems that assess the quality of research in UK higher education institutions;
- supervise PhD students;

- Foster links with industry which will benefit both research and teaching at UCL;
- Contribute to technology transfer activities through the development and protection of Intellectual Property (IP) and the pursuit of its exploitation through joint venture, licensing and spin-out routes as appropriate.

Teaching: Undergraduate and postgraduate teaching duties are assigned by the Head of Department, on the recommendation of the Deputy Head (Education). The duties will include

- Teaching students at undergraduate level. This will be through a selection of lecturing, tutoring, classwork demonstrating, project supervision, and laboratory demonstrating;
- Research and postgraduate student teaching, project supervision and demonstrating;
- Curriculum development;
- Contributing where necessary to the assurance and enhancement of teaching quality;
- Recruitment and selection of undergraduate and post-graduate students;
- Examining and other related duties at undergraduate and post-graduate levels;
- Design and delivery of new courses.

Administration:

- Undertaking of administrative tasks within the Department of EEE and, as required, at faculty and/or institutional level within UCL;
- Attending, and where needed, leading relevant EEE committee meetings;
- Assisting with staff recruitment;
- Serving on Faculty, College and University committees as appropriate;
- Mentoring EEE staff as appropriate and promoting – both within and outside UCL – the work of EEE;

- Complying with UCL and departmental policies on safety, equal opportunities, and other matters.

Other Duties

- Actively participate in learned society activities within the profession;
- Attend courses and conferences and engage in other activities associated with professional development;
- Comply with College and Departmental policies.

The post-holder should carry out any other duties as are within the scope, spirit and purpose of a UCL academic post, as requested by the Head of Department. The post-holder is expected to take responsibility for their work, duties and results. Within reason, the duties and role of the post-holder may be changed after appropriate consultation in response to changing organisational requirements. The post-holder is required to follow actively all UCL policies including Equal Opportunities policies.

Person Specification - Criteria

Criteria	
Qualifications, training and experience	Essential or Desirable
A PhD or equivalent qualification in electronic engineering or a closely related discipline.	Essential
Demonstrated track record of publications in international journals relevant to EEE	Essential
Demonstrated track record of presenting their work at leading international conferences relevant to EEE	Essential
Excellent communication skills both verbal and written	Essential
A record of successful supervision and management of active research staff	Essential
Experience in the area of data networks (wired or wireless)	Essential
A strong record of attracting funding to support their research programme at the highest international level	Desirable
Experience of teaching in a university environment	Desirable
Experience of experimental network and communication links design	Desirable
Knowledge and experience of use of machine learning specifically applied to communication systems and networks	Desirable
Experience working as a Postdoctoral Researcher or equivalent in an academic institution	Desirable
Other requirements	
A record of conducting internationally-leading research	Essential
Experience of working within international collaborative research projects	Essential
The ability to inspire students and research staff to achieve their full potential	Essential
Demonstrated ambition to be a future scientific leader in EEE	Essential
Experience of working in or collaborating within the EEE industry or academic/research institutions	Desirable
Experience of teaching EEE courses to undergraduate students	Desirable
An excellent international research profile, reflected in conference invited presentations and conference TPC membership	Desirable

How to Apply

Interested applicants are encouraged to make Informal enquiries about the post to either Prof Izzat Darwazeh i.darwazeh@ucl.ac.uk or Prof Miguel Rio miguel.rio@ucl.ac.uk

All applications should be submitted via UCL online recruitment system at the following link:
<http://www.ucl.ac.uk/hr/jobs/>

You can upload **a maximum of 2 documents** with your application.

Please combine and ensure you include :

- CV
- List of major achievements to date
- Starred list of top 5 publications to date with a short description (100 words max) of their significance.
- Research statement, including consideration of the fit to EEE at UCL
- Teaching statement, including consideration of the fit to EEE at UCL

Job Reference: **1880121**

If you have any queries regarding the application process please contact Vicky Coombes at v.coombes@ucl.ac.uk quoting reference **1880121**

UCL Taking Action for Equality

About UCL and the Department of Electronic and Electrical Engineering

University College London (UCL) was founded in 1826 as the third university in England, after Oxford and Cambridge. UCL is the first university in England to admit students of any race, class or religion, and the first to welcome women on equal terms with men. UCL is organized into 11 constituent faculties, within which there are over 100 departments, institutes and research centres. UCL has 983 professors and more than 7000 academic staff who are dedicated to research and teaching of the highest standards. Its student community is almost 36,000, the largest in the UK. There are 29 Nobel Prize winners and three Fields medalists amongst UCL's alumni and current and former staff. UCL is the top rated university in the UK for research excellence (REF2014). It has a strong tradition and large knowledge base in medical research with a dedicated institute on Healthcare Engineering and 10+ hospitals. UCL has world-class support for researchers and has been voted the best place for postdoctoral researchers to work for consecutive years by The Scientist magazine. The main campus of UCL is located in central London, close to British Museum, West-End and Thames River.

The Department of Electronic and Electrical Engineering (EEE) at UCL was established by Professor Sir Ambrose Fleming, inventor of the thermionic valve and hence the founder of the discipline of electronics, in 1885 as the first department of electrical technology in England. That same pioneering tradition of innovation and excellence continues to underpin our work. We push in new directions across research, education and entrepreneurship, building on our long-established links with industry and benefitting from our loyal and supportive alumni community. We are committed to develop individuals and careers, across staff and students, developing and supporting our subject discipline. The Department of Electronic and Electrical Engineering at UCL is recognized as one of the leading departments for research in its subject area, worldwide. Current research areas in the Department include Information and Communication Engineering; Electronic Materials and Devices (including Nanotechnology); Optical Communications & Networks; Photonics and Sensors, Systems and Circuits. The Department is part of the world-leading London Centre for Nanotechnology. The Department has an extensive teaching programme, both at undergraduate (BEng and MEng) and Masters levels.

Further information regarding UCL may be found at :www.ucl.ac.uk

Information about the department may be found at: www.ucl.ac.uk/eee