



## FURTHER PARTICULARS

- Job Title:** Research Associate or Senior Research Associate  
Content-Oriented, Edge-/Fog-Computing & Networking
- Department:** Electronic & Electrical Engineering
- Reports to:** Prof. George Pavlou and Dr Ioannis Psaras
- Grade:** The post is Grade 7 for a Research Associate, £33,686 to £40,716 per annum or Grade 8 for a Senior Research Associate, £41,844 per annum to £49,362 per annum. Salaries quoted are inclusive of London Allowance, which is currently £2,948 per annum.
- Period of Appointment:** 12 months in the first instance, further funding to support the post may be available. Start date: From as soon as possible, ideally within November 2016.

### Main Purpose

Undertaking research, design and development in the context of EPSRC and EU-funded projects, whose focus is on content-oriented Internet architectures for edge-/fog-computing. Our projects aim to investigate and develop a communication and information infrastructure based on the principles of Information-Centric Networks (ICNs), but also extending to current trends on edge-(mobile) and fog-computing.

### Duties and Responsibilities

- To participate in the design, validation, evaluation, but mainly implementation of the proposed architecture and related algorithms and protocols. The following areas are of special importance in this project:
  - Content naming and information exposure through content names.
  - Content resolution procedures and routing algorithms in ICN architectures and mobile environments.

- Information-Centric Networking, Edge-/Fog-Computing architectures and Opportunistic and Delay-Tolerant Networking architectures.
  - Traffic engineering, resource management and resource allocation in ICN and/or edge-/fog-computing environments.
  - Implementation, validation and evaluation of the above concepts in either simulation or testbed environments.
- To contribute to the drafting and submitting of papers to high quality peer reviewed conferences and journals.
  - To contribute to the preparation and drafting of research bids and proposals.
  - To contribute towards and produce reports and deliverables as required by the projects.
  - To contribute to the overall activities of the research team and department as required.
  - The postholder should be prepared to travel for short periods (usually for 1-3 days but, occasionally, this could be for up to two weeks) around Europe and possibly further abroad. Occasional periods of late or weekend working may be required.
  - The postholder will carry out any other duties as are within the scope, spirit and purpose of the job as requested by the line manager or Head of Department. As duties and responsibilities change, the job description will be reviewed and amended in consultation with the postholder.
  - The postholder will actively follow UCL policies including Equal Opportunities and Race Equality policies.
  - The postholder will maintain an awareness and observation of Fire and Health & Safety Regulations.
  - The postholder will be required to relocate to London.

**Information about the Communications and Information Systems Group may be found at:**

<http://www.ee.ucl.ac.uk/research/cominfosys/>

**Information about the department may be found at:**

<http://www.ee.ucl.ac.uk/>

**Further information regarding UCL may be found at:**

<http://www.ucl.ac.uk/>

## Person Specification for the Post of Research Associate

### Knowledge – including Qualifications

- Strong (first or upper second class) undergraduate degree in Electronic Engineering or Computer Science (essential).
- PhD in Computer Science, Electronic Engineering or a related field (essential).
- Knowledge of Information-Centric Networking (ICN) (essential).
- Knowledge of edge-mobile and fog-computing principles (essential).
- Knowledge of Opportunistic and Delay-Tolerant Networking (DTN) (desirable).
- Ability to mathematically approach networking problems and proposed solutions (desirable).
- Hands on and implementation experience in one or more of the following areas: content-oriented architectures; information-centric networking; opportunistic and delay-tolerant networks; resource management and congestion control (essential).

### Skills

- Strong programming skills in C, C++ and Java (essential).
- Algorithm design skills (essential).
- A good publication record in the field (essential).
- Experience in participating in multi-partner national or EU projects (desirable).

### Experience

- Substantial experience of working in a research environment (essential).
- Experience of developing and conducting network experiments in simulation environments and/or laboratory testbeds or real-world networks (essential).

### Personal Qualities

- Ability to work collaboratively as part of a team with co-operative contributions to common objectives (essential).

## Person Specification for the Post of Senior Research Associate

As Research Associate and in addition:

### Experience

- Experience of coordinating activities within a research team (essential).
- Leadership experience in collaborative research projects (essential).
- Experience of preparing successful research grant applications (essential).
- Experience in contributing to the supervision of postgraduate projects (desirable).

### Personal Qualities

- Ability to generate independent ideas and directions of new research (essential).

## HOW TO APPLY

Interested applicants are encouraged to make Informal enquiries about the post to Dr Ioannis Psaras ([i.pсарas@ucl.ac.uk](mailto:i.pсарas@ucl.ac.uk)) or Prof. George Pavlou ([g.pavlou@ucl.ac.uk](mailto:g.pavlou@ucl.ac.uk), tel. 020 7679 3985).

All applications should be submitted via UCL online recruitment system at the following link:

<http://www.ucl.ac.uk/hr/jobs/>

Job Reference: 1575952

If you experience any problems with the application process please contact Vicky Coombes at [v.coombes@ucl.ac.uk](mailto:v.coombes@ucl.ac.uk) quoting reference 1575952

**Closing Date: 21<sup>st</sup> September 2016**

UCL Taking Action for Equality