

4-Year PhD Studentship at King's College London

Title: Integration of SDN and NFV in 5G to support access traffic splitting, switching and steering

Summary: The main goal of this project is the integration of two novel technologies, namely Software Defined Networking (SDN) and Network Function Virtualization (NFV), within the converged mobile core network with the aim to efficiently manage multiple available radio access technologies (e.g., cellular and WiFi).

The 5G networks are expected to support high density of devices and heterogeneous services with different quality of service (QoS) requirements. To support such scenario, network operators need to orchestrate the traffic across their available network access, to guarantee that each traffic type is served via the most suitable access technology according to the required QoS as well as according to the current status of the network.

When coming to support flexible network re-configuration, Software Defined Networking (SDN) and Network Function Virtualization (NFV) are the two main technologies to look at. SDN and NFV provide abstraction of physical infrastructure together with softwarisation of network resources, thus allowing the network to be dynamically re-configured in terms of paths, function chains, QoS management, etc. The aim of this project is to study how SDN and NFV technologies can support adaptive access traffic steering, switching and splitting capabilities (ATSSS) in mobile networks.

Scheme: This project is funded through epsrc iCASE award. The successful candidate will receive training both from the university (**King's College London**) and at the industry partner (**BT**).

Duration: This is a 4-year PhD programme, starting October 2018 or soon after.

Funding: The funding is a full scholarship based on home student fees, i.e. **full home student tuition** is paid by the award. In addition, the **stipend of 18,000 GBP** (tax free) and research support such as **generous travel grants** to conferences, is included in the award.

Eligibility: The eligible student must have a resident status in the UK or equivalent (usually lived in the UK for three years). For more details, please check epsrc website:

<https://epsrc.ukri.org/skills/students/coll/icase/intro/>