The public talk titled “Network Virtualization and Software Defined Networking for Next Generation Communications Networks” was given at The University of York in York, United Kingdom on 19\textsuperscript{th} December 2013.

During the talk, Rudraksh presented a brief introduction and background of the Crossfire project and a general overview of SDN with network virtualization including some of the research work that he is currently doing at NEC Europe related to the Crossfire Project.

The abstract of the talk was as follows - As wireless traffic continues to grow, network operators must carry higher volumes of data and support more sophisticated services. To meet the rising and diverse user demands, further improvement in wireless communication technology is required to enhance service delivery for example, through higher data rates, low latency, reduced interference and even greater capacity. The increasing heterogeneity in either access technology, topological layers for example, macro, pico, femto or spectrum (multiple frequency bands, maybe aggregated) has made it necessary for operators to maintain and operate distinct access, backhaul and core networks. This could lead to increased OPEX and CAPEX for the operators. Furthermore, network operators need flexible deployment capabilities to migrate from older to newer technologies without impacting the end user experience. Therefore, to address these challenges a holistic approach is required that leverages the strength of software defined networking (SDN) with the help of virtualization as enabling technology to transform the way networks are managed at present and adapt network operations based on real time traffic behavior. This approach would simplify network management, enable network resource sharing and provide flexibility to introduce innovative services. The talk will present an introduction to software defined networks (SDN) and network virtualization. It will also discuss the trends in this domain and the concept of virtual cells in TD-LTE systems.