Title: Technology Enablers for 5G networks

Abstract

5G is viewed as a set of key enabling technologies allowing the realisation of a "hyper-connected society" where billions of users, via end devices (e.g. smart home appliances, connected cars, smart phones, laptops) and machines, will be able to exchange data and offer/receive services at a high QoS level. Current network facing several challenges: High CAPEX and OPEX, spectral efficiency, bandwidth crunch and poor QoE.. To overcome these challenges, telecommunication providers have to invest into new deployments which will raise their capital and operational costs. 5G can be considered a set of enabling technologies to support enhanced mobile broadband, massive machine type of communications and ultra reliable and low latency communications. The talk will cover the fundamental technology enablers in 5G era: Telco and Network Cloudification, Virtualization Technologies, Microservice architectures, Edge Cloud Computing technologies (fog, MEC, mist etc), Software Defined Everything, Network Function Virtualization (NFV) and Network Slicing.

CV

Professor Tasos Dagiuklas is a leading researcher and expert in the fields of smart Internet technologies. He is the leader of the Smart Internet Technologies (SuITE) research group at the London South Bank University where he also acts as the Head of Division in Computer Science. Tasos Dagiuklas received the Engineering Degree from the University of Patras-Greece in 1989, the M.Sc. from the University of Manchester-UK in 1991 and the Ph.D. from the University of Essex-UK in 1995, all in Electrical Engineering. He has been a principle investigator, co-investigator, project and technical manager, coordinator and focal person of more than 20 internationally R&D and Capacity training projects in the areas of Fixed-Mobile Convergence, 4G/5G networking technologies, VoIP and multimedia networking.

Prof. Dagiuklas' research interests lie in the field of 5G networking technologies, mobile cloud networking, network function virtualization, software defined networks, media streaming technologies, Car2X communications, and social media networking.