

Software-Defined Networking based on the Internet of Things (IoT) and Security Challenges

Alma Oracevic, PhD

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Place: Faculty of Engineering Meeting Room

Abstract

In this talk we will talk about Software-Defined Networking (SDN) solutions for 5G Systems, in particular, for the Internet of Thing (IoT). The aim is to develop scalable and efficient traffic engineering solutions, e.g., control traffic balancing, multi-controller control plane, hybrid and scalable routing, and SDN-enabled fog computing. These solutions further aim to counter the fundamental scalability limitations of current SDNs for wireless networks while keeping the benefit of network control centralization for globally optimal computing and networking performance.

Biography

Alma Oracevic received her Ph.D from University of Zagreb, Faculty of Electrical Engineering and Computing, in February 2016 under the supervision of Professor Dr. Mladen Kos, University of Zagreb, Croatia and Professor Dr. Suat Ozdemir, Gazi University, Ankara, Turkey. The title of her dissertation is "Secure and Reliable Object Tracking in Wireless Sensor Networks". During her Ph.D studies she has focused on secure and reliable target tracking in wireless sensor networks and part of the research has been conducted in KAVEM laboratory in Gazi University.

In December 2016, Dr. Oracevic received Fulbright award for postdoctoral research at Georgia Institute of Technology, Atlanta, USA. During her postdoctoral research she worked in the Broadband Wireless Networking Lab under the supervision of Professor Dr. Ian F. Akyildiz. She conducted research in the area of fundamental design principles underlying a new generation of MANETs (Mobile Ad Hoc Networks), SD-MANET architecture, via the synergy of SDN (Software Defined Networking) and NFV (Network Function Virtualization) that leverage the promising properties of such new architectures. In addition to her research work, Alma Oracevic also taught a course on Computer Networks at Georgia Institute of Technology during this period.