

## Introduction from Session Chair

### Multimedia and Telecommunications Track Session: Content Caching

Utz Roedig

*Mobile & Internet Systems Laboratory (MISL)*

*University College Cork*

*College Road, Cork, Ireland*

*utz@cs.ucc.ie*

Computer networks are used today in daily life and we notice that these networks and the applications are used for communication advance. For example the use of wireless networks increases, leading to a more heterogeneous network structure. Applications process more time critical content like stock information or videos leading to quality of service needs (QoS) which have to be fulfilled by the network.

It has been always the goal to design efficient networks or to optimize existing ones. Especially today an efficient (cost-effective) design respectively usage of a network is of particular importance. To create efficient networks, various methods can be used. One well-known method used for network optimisation regarding bandwidth usage or response times is the usage of content caches and cache infrastructures. To be able to use this method in future networks it has to be adjusted to the constraints of the underlying communication networks. In this session new ideas are presented that will allow the usage of caches in future networks.

The first paper by Pablo Rodriguez, Ernst W. Biersack and Keith W. Ross is entitled "Automated Delivery of Web Documents Through a Caching Infrastructure". The paper deals with the problem of ensuring cache consistency for frequently changing web documents. In the paper different mechanisms to implement an automated delivery of document updates to provide strong consistency are proposed and compared.

The second paper by Hayat Kara and Christopher Edwards with the title "A Caching Architecture for Content Delivery to Mobile Devices" presents a new caching architecture that can deal with mobile users in the network. Within the paper also an implementation of the proposed architecture is described.

The last paper "Polishing: A Technique to Reduce Variations in Cached Layer Encoded Video" by Michael

Zink, Oliver Heckmann, Jens Schmitt and Ralf Steinmetz describes a caching technique for layered encoded videos that allows to improve the perceptual quality of the video for the clients.

The results described in the papers of this session will help to deploy caching techniques efficiently in future networks.