

Networking Research Activities at University of West Hungary

Speaker: Dr. Karoly Farkas

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Dare: Friday, October 19, 2007

Time: 10:00 - 11:30 AM

Venue: CReWMaN Lab (WH 413)

Abstract:

In this talk, I will briefly present my personal research activities in the last couple of years in the area of mobile ad hoc networks (MANETs). This covers the development of a service provisioning framework, called SIRAMON, to be used in MANETs especially emphasizing the management module. As part of this module, we implemented a zone-based service management architecture in which every zone has a zone server that handles the client nodes belonging to the given zone. To select and maintain the zone servers, we have developed a distributed algorithm based on Dominating Set computation. To designate the most powerful nodes to act as servers, we have also developed a weight computation mechanism. To create a stable zone server set, we use prediction and try to assess the link quality changes and thus the network topology variations.

Additionally, I will give an overview about our new research project dealing with the development of sustainable applications based on mobile sensors and networks. Finally I will sketch some collaboration possibilities.

Speaker's Biography:

Dr. Karoly Farkas received the Ph.D. degree in Computer Science in 2007 from ETH Zurich, Switzerland, and the M.Sc. degree in Computer Science in 1998 from Technical University of Budapest (TU Budapest), Hungary. Currently he is

working as an Associate Professor at University of West Hungary, Sopron, Hungary. His research interests cover the field of communication networks, especially autonomic, self-organized and wireless mobile ad hoc networks. His core research area deals with service provisioning in mobile ad hoc networks. He has published more than 30 scientific papers in various journals, conferences and workshops and has given invited talks.

He has supervised a number of student theses, participated in several research projects, coordinated the preparation of an EU IST research project proposal and acted as reviewer and organizer of numerous scientific conferences. He served in the program committee of the IADAT-tcn conference in 2005 and 2006, and he acts as technical co-chair of the 3rd WICON (Wireless Internet) conference in 2007. He is member of the IEEE and fellow of the European Multimedia Academy.