The IADIS International Conference Telecommunications, Networks and Systems 2010 was held in Freiburg, Germany, 26-28 July, 2010. The Conference was co-organized by Albert-Ludwigs-Universität Freiburg, Germany.

The IADIS Telecommunications, Networks and Systems 2010 Conference covered theory, design and application of computer and telecommunication networks and systems. During recent years there has been an impressive increase in the use of networked applications and networks are now key resources in any information system configuration. Wireless and fixed-line networks complemented by a growing range of mobile devices are having a significant impact on the way we run our lives and our businesses.

The proceedings of the IADIS Telecommunications, Networks and Systems 2010 were jointly published with the IADIS Informatics 2010 and also with the IADIS Wireless Applications and Computing 2010. These events received 107 submissions from more than 20 countries. Each submission had been anonymously reviewed by an average of five independent reviewers, to ensure that accepted submissions were of a high standard. Consequently only 15 full papers were published. The overall acceptance rate corresponds to about 14 %. A few more papers were accepted as short papers, reflection papers and posters. An extended version of the best papers were published in the IADIS International Journal on Computer Science and Information Systems (ISSN: 1646-3692) and in the IADIS International Journal on WWW/Internet (ISSN: 1645-7641).

The submissions were accepted under the following main areas:

- Adoption and diffusion of networking technologies
- Business applications of telecommunications
- Cross-border network-based information systems
- Design and performance evaluation of new network application and systems
- Designing, deploying and using networked systems in specialized sectors (i.e. Health, Education, Manufacturing)
- Effects of legislation and regulation on telecommunications
- Emerging networking trends
- Frameworks for wireless security
- Grid, Cluster and Internet Computing
- Internetworking Protocols
- Location- and context-aware distributed systems
- Management of telecommunications in organizations
- Mobile computing, mobile networks, and mobile agents
- Mobility and m-commerce issues
- Network management contingency issues
- Network Performance Analysis and Evaluation
- Network pricing issues and strategies
- Networking: architectures, services, routing, and applications
- Outsourcing of networking and data communication services
- Peer-to-Peer (P2P) Systems
- Policy-based network management systems
- Policy-based security systems
- Quality of Service issues associated with networked systems
- Security of interconnected systems
Keynote Presentations:

SELECTED SECURITY- AND DEPENDABILITY SOLUTIONS FOR UPLINK- AND DOWNLINK TRAFFIC IN WIRELESS SENSOR NETWORKS by Professor Dirk Westhoff, Hamburg University of Applied Sciences, Germany

Abstract:

This talk provides an overview about selected security and dependability solutions for wireless sensor networks. The proposed concepts have recently been developed within the European projects UbiSecSens, Sensei and WSAN4CIP. The main focus of the talk is on securing convergecast traffic, securing multicast as well as aggregation providing in-network resilience for real-time wireless sensor networks. All the discussed solutions have in common that, besides an adequate security level, key design aspects have been energy efficiency and a small memory footprint.

WEB TRENDS – BETWEEN SEMANTIC, LOSS OF PRIVACY AND PERSONALIZATION by Dr. Sven Rizotti, University of Basel, Switzerland

Abstract:

A strict separation of users into producers and consumers of information characterize the original Web. From the end user perspective, the original Web is a read-only information space. Progress in Web software architecture as well as a paradigm change has resulted in a proliferation of social software platforms. Every user is considered to be a valuable information source and as a consequence is allowed to produce and deposit information. In such a context, systems turn out to improve the more users get in touch with it. The Web became an editable information space fed by a collective intelligence impetus. For the next Web generation, semantic, loss of privacy and personalization in terms of a freely mashable, annotable, and reorganizable information space is on the horizon. This keynote speech will deliver an insight into actual trends and will discuss possibilities for more semantic in the Web that may come through the social usage of the Web.
Conference Best Paper:

DELAY ANALYSIS OF IEEE 802.11 MAC ACCESS PROTOCOL BASED ON M/G/1 by Gonzalo Arroyo and Walter Grote, University Técnica Federico Santa María, Chile

Abstract:

This paper presents an analytical model to calculate the total MAC delay experimented for packets, for stable network conditions. This model considers that each station of the network has an M/G/1 transmission queue. What differentiates this paper from others is that the total delay is derived directly from the exact service time distribution of a packet of the backoff algorithm, instead of using approximations. The no-saturated channel model relies on the idle time of the station, which is also a new approach that avoids approximations from previous models. Evaluations of this model show that it is in close agreement with simulation results.


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