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# Intelligence in Communication Systems

IFIP International Conference, INTELLCOMM 2004  
Bangkok, Thailand, November 23-26, 2004  
Proceedings



Springer

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# Preface

The 2004 IFIP International Conference on Intelligence in Communication Systems (INTELLCOMM 2004), held in Bangkok, Thailand, 23–26 November 2004, was the successor and an expansion of SMARTNET, a series of annual conferences on intelligence in networks held during 1995–2003 under the auspices of IFIP TC6’s Working Group 6.7. The Internet and Web provide more connection facilities, hence the man-man, man-machine and machine-machine interactions will increase and communication will have an important role in modern systems. In order to obtain effective and efficient communication, artistic, social and technical issues have to be tackled in a holistic and integrated manner. However, communication techniques, concepts and solutions which have been developed so far treat these issues separately, so that there arises a need for communication researchers and practitioners in different fields (engineering, science and arts) to meet, share their experience and explore all possibilities of developing integrated and advanced solutions which incorporate ideas from such disciplines as communication arts, art design, linguistics, Web technologies, computer system architecture and protocols, computer science and artificial intelligence.

INTELLCOMM 2004 was jointly sponsored by IFIP WG 6.7: Smart Networks and WG 6.4: Internet Applications Engineering and aimed to provide an international forum which brings academia, researchers, practitioners and service providers together. The discussion areas covered the latest research topics and advanced technological solutions in the area of intelligence in communication systems, ranging from architectures for adaptable networks/services and Semantic Web/Web services technologies to intelligent service application interface and intelligent human interaction.

INTELLCOMM 2004 received 112 paper submissions from 28 countries. From these, 24 were accepted, and are included in this proceedings. There were also 3 papers accepted for poster presentation, published separately. The technical program comprised one day of tutorials, followed by keynote speech, paper and poster sessions.

The tutorial sessions were arranged with the topics: “Intelligence in Communication Systems: Evolution, Trends and Business Opportunities,” “Open Mobile Services,” “QoS and Security in the Embedded Internet,” “Metadata Development” and “Ontology Engineering”.

The speakers and topics of the five keynote sessions were: Dr. Reda Reda from Siemens AG in Germany: “Intelligence in Communication Systems, the Business Point of View,” Prof. Toyooki Nishida from the University of Tokyo in Japan: “Conversational Knowledge Process for Social Intelligence Design,” Prof. Guy Pujolle from the University of Paris in France: “Smart Router and Intelligent Protocol,” Prof. Dieter Fensel from the University of Innsbruck in Austria: “Triple-Space Computing: Semantic Web Services Based on Persistent Publication of Information,” and Prof. Lill Kristiansen from the Norwegian University

of Science and Technologies in Norway: “Mobility and Intelligence in Telecom: How and Where to Handle It?” The materials of the keynote speeches are also included in this volume.

The eight technical paper sessions were arranged on: “QoS and Security,” “Intelligent Communication Systems with NLP,” “QoS,” “Location and Context-Aware Services,” “Protocol and Application Architecture,” “Semantic Web and Service Architecture,” “Adaptability Architecture” and “Network and Mobility Management.”

Many people contributed to the organization of this conference. We thank the members of the Program Committee for their continuous advice and help in reviewing and selecting papers. We would also like to thank IFIP TC6 and the corporate patrons for their support of this conference. Finally, we would like to express our gratitude to the Organizing Committee Advisor Dr. Manoo Ordeedolchest and the Organizing Committee for their excellent work.

November 2004

Finn Arve Aagesen  
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