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Contents

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Introduction

Welcome to the ITCom conference Next-Generation Communication and Sensor Networks 2007. This year our conference is done in close cooperation with the conference Broadband Access Communication Technologies II. The conferences strongly overlap the addressed research areas, and alignment of the conferences' schedules is done for the benefit of the conference attendees.

This year we have accepted 28 high quality technical papers, from which 9 papers are selected for 5 joint sessions with the Broadband Access Communication Technologies II conference. Also, both conferences are strongly presented in the poster session, which results in a very strong technical program representing the state of the art in the field.

Analysis of the last few years shows significant research interest in next-generation communication and sensor networks. The network services have evolved from basic telephone and data offerings to advanced integrated services over high-speed networks, wireless networks, sensor networks, and the Internet. This evolution has raised the need for new and more sophisticated solutions in the development of networking technologies and the underlying infrastructure.

This conference, fifth in a series, aims to promote discussion on the development of performance evaluation techniques, traffic control principles, and traffic engineering methods and practices, as well as to explore future directions in enhancing the Internet to address the above-mentioned challenges. The specific focus areas of this year's conference are next-generation communication and sensor networks. Also, this year we start looking to a new area of embedded networks, which to a large extent has the same limitations as sensor networks. To support all of these discussions, we have selected a number of relevant papers that are presented at the conference.

We appreciate the time and expertise of the program committee members in reviewing the submissions, and the session chairs for helping with the sessions. We also thank the SPIE staff for their help in processing the submissions on the Web and in organizing the conference.

Thank you for joining us at the ITCom Next-Generation Communication and Sensor Networks 2007 conference.

Sergey I. Balandin