Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering 123

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Personal
Satellite Services

5th International ICST Conference, PSATS 2013
Toulouse, France, June 27-28, 2013
Revised Selected Papers

Springer

Volume Editors

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Preface

It is our pleasure to welcome you to the 5th International Conference on Personal Satellite Services (PSATS) held in Toulouse, France during 27–28 June 2013.

Technology advances in communications together with changes in the regulatory framework are paving the way for next generation satellite systems. Broadband on the move, improved spectrum efficiency, flexible payloads are the keywords. These evolutions foster advances both for the end-users and the satellite operators, yielding opportunities for new value-added services including those that blur the frontiers between Earth observation, telecommunications and positioning. The legacy role of satellite communication as bearer of broadband and broadcast services is also confirmed as the need for global multimedia distribution rises.

In addition to that, the gap between terrestrial and the so-called space communication technologies is getting narrower. The space segment is now the natural bridge among heterogeneous networks providing flexible capacity wherever and whenever needed.

The Personal Satellite Service conference, confirms through its 5th edition that there is a need for a scientific forum where these evolutions are prepared. The conference provides a multifaceted floor for technology and networking where all R&D actors including academic and industrial researchers, practitioners, and students can meet and discuss. In organizing PSATS 2013, we were delighted to work with a dedicated team of volunteers whose efforts ensured a strong two day programme. The tireless work of these volunteers helped to ensure that PSATS continues to be a reputed conference in the area. We are grateful to the TPC chairs Dr Marie-Josée Montpetit (Cambridge MA, USA) and Dr. Daniel Lucani (Instituto de Telecommunicacoes Porto, Portugal). Thanks to their efforts, PSATS has a strong and focused technical programme. PSATS 2013 has 18 regular papers, 3 tutorials and 3 demos in diverse topics under Personal Satellite Services. The Technical Programme Committee of PSATS 2013 deserves a special mention, since their efforts have lead to a selective and strong technical programme. We thank the industrial chair Mr. Nicolas Chuberre (Thales Alenia Space, France), publicity chair Prof. Laurent Franck (Télécom Bretagne, Institut Mines Télécom, France), demos and tutorial chairs Dr. Emmanuel Dubois (CNES, France) and Dr. Fabrice Arnal (Thales Alenia Space, France), publications chair Dr. Lorenzo Mucchi (University of Florence, Italy), local organising chair Dr. Emmanuel Chaput (IRIT-ENSEEIHT, France). We are grateful to the web chair Dr. Julien Fasson (IRIT-ENSEEIHT, France) for a high quality and superb website. We are particularly grateful to the conference coordinator Ms Erica Polini (EAI, Italy). Her timely feedback and suggestions has ensured the organization of this two day program. We thank the venue manager and conference coordinator Ms. Elisa Mendini (EAI, Italy). Lastly, we are grateful to

the Steering Committee and the Advisory Committee for their support to the conference.

PSATS 2013 is proud to welcome Mr. Hugo Gonzales Perez, the programme officer for broadband and mobile initiatives at CNES (Centre National des Etudes Spatiales, France), as our keynote speaker. He will set the tone of the topic during the two days of the conference, with a special focus on new challenges for satellite communications.

PSATS 2013 includes three tutorials by experts in the area. The first tutorial, in the networking domain, entitled "Emergency Communications" is offered by Prof. Laurent Franck, Telecom Bretagne, France. The second tutorial, in the telecommunication domain, entitled "Advanced Techniques for Foward Error Correction for Future Satellite Systems" is presented by Prof. Jérôme Lacan, ISAE, France. The third tutorial entitled "Advanced Access & Networking Techniques for Future Aeronautical Systems Aided by Satellite" is offered by Mr. Christian Kissling, scientific researcher working in the Institute of Communications and Navigation at the German Aerospace Center (DLR), Germany. We sincerely hope that the delegates will find the state-of-the-art tutorials useful.

PSATS 2013 also included a panel discussion session of the topic: "Hybrid Satellite/Terrestrial Networks". This session aims at discussing the most interesting scenarios combining satellite and terrestrial network technologies in the context of the future 5G network infrastructure. This session will bring in the view of the satellite operators, satellite research centres, SMEs and universities on the future role of satellite communications in our everyday life. We would also like to thank all the members of the panel session, and all the student volunteers of PSATS 2013.

PSATS has traditionally received strong support from industry over the years. This year as well, our corporate sponsors, have generously supported us with funds that enable us to hold a high quality conference. We thank our sponsors: ICST, Centre National des Etudes Spatiales (CNES, France), Institut National Polytechnique de Toulouse (INPT, France), Institut National de Recherche en Informatique (IRIT, France) and ASI, Italy. for their generous financial support. We thank Thales Alenia Space (TAS, France) for the technical support.

We thank all the authors and speakers for their technical contributions and the attendees for their participation. Given the excellent technical program and the hard work put in by all the organizers, we are sure that you will all have an intellectually stimulating and enjoyable PSATS 2013. We wish you a pleasant stay in Toulouse, France and we hope you will greatly enjoy the conference!

June 2013   Riadh Dhaou
                                                        André-Luc Beylot

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