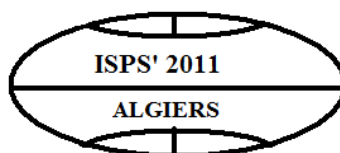


Proceedings of the

Tenth
INTERNATIONAL SYMPOSIUM
OF PROGRAMMING AND
SYSTEMS



25-27 April 2011

Algiers:

USTHB
UNIVERSITY



Sheraton
Hotel, Algiers



IEEE
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Welcome Message

We wish to welcome you to ISPS 2011, the international Symposium on Programming and Systems to be held in USTHB-Algiers, Algeria, April 25-27, 2011. This year marks the 10th anniversary of this event, and we are truly delighted that many colleagues are joining us to help celebrate this special occasion.

For the first time, and to highlight the international aspect of this edition, **ISPS'2011** was organized jointly by the Computer Science Department of Electronic and Computer Science Faculty from University of Sciences and Technologies Houari Boumediene (USTHB) and the LISSI Laboratory from the Paris-Est Créteil University (UPEC- France). Also, for the first time, ISPS 2011 is technically co-sponsored by the IEEE communications society and proceedings are published by IEEEExplore.

This year, we had an overwhelming number of paper submissions. All papers were carefully peer-reviewed by at least 3 international reviewers. 30 papers were selected and edited for presentation and publication. This accounts for a paper acceptance ratio of 30%. Accepted papers were then grouped into 10 oral sessions which provide a platform for presenting the latest research issues in computer science topics as well as novel ideas and more specific research areas in a less formal and possibly more focused way.

Another highlight of the Conference is the Keynote addresses. This year, 4 keynotes will be delivered by distinguished scientific experts in the scope of ISPS which is related to distributed systems, wired and wireless networks, web technologies, network services, formal programming and other topics. The goal is to collect different feedback through lively and productive discussions. ISPS 2011 is also aimed to better prepare researchers in understanding real-world problems and developing promising solutions.

You will find the technical program of ISPS 2011 very stimulating, informative and inspiring. Such program would not be possible without the hard work and devotion of many of our volunteers. In particular, we would like to extend our sincere thanks and appreciation to the exceptional work rendered by all TPC members and reviewers who made high quality reviews under a tight schedule. Without their effort and involvement, this event could not have taken place.

We are indebted to all the members of the organization committee for their effort and their precious time to ensure the good success of this event.

The last but not the least, this event would not be held without financial support of our academic or industrial sponsors. We would like to express our gratitude to *IT SOLUTIONS, USTHB, LRIA, LSI, MPTIC, SONATRACH, ENG, CERIST, ANDRU, ALGERIE-TELECOM, BATICIM, COSIDER, CEVITAL, ELIT, AIR ALGERIE, ARPT, OASYS, STPE* and *EGUVA*.

We cordially invite all of you to join us and interact with all attendees. In the meantime, do not forget to enjoy our beautiful city and the many amenities that it has to offer to special visitors and guests.

We hope you will have a memorable experience at ISPS 2011 in Algiers.

April 2011

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