

# Report on 8<sup>th</sup> International Symposium on Communication Systems, Networks and Digital Signal Processing

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## 1. Introduction

The International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP 2012) was held at Poznan University of Technology, Poznań, Poland, July 18-20, 2012.

CSNDSP is recognised as a forum for the exchange of ideas among engineers, scientists and young researchers from all over the world on advances in communication systems, communications networks, digital signal processing and other related areas and provides a focus for future research and developments.

This was the eighth biennial conference of this series. The conference was held for the first time in Eastern Europe and for the third time outside Great Britain (previous conferences were hosted by Greece and Austria).

The sponsors of the conference were: The Institute of Electronics, Information and Communication

Engineers (IEICE), IEICE Communications Society, IEICE Europe Section, The Institute of Electrical and Electronics Engineers (IEEE), IEEE UK&RI Section, IEEE Photonic Society (Poland), IEEE Communication Society Poland (Chapter Poznan, Chapter Kraków), The Institution of Engineering and Technology (IET), INEA S.A., The European Association for Signal Processing, Poznan University of Technology, Polish Association of Telecommunication Engineers, and Soft Motors.

The conference started with opening speeches by the chair of CSNDSP2012, Prof. Mariusz Głabowski and the Dean of Faculty of Electronics and Telecommunications of Poznan University of Technology, Prof. Paweł Szulakiewicz. The conference was officially opened by the chair of CSNDSP Steering Committee, Prof. Zabih Ghassemlooy.



Fig. 1 Opening session:

(from the left) CSNDSP Steering Committee Members: Prof. Erich Leitgeb (Graz University of Technology, Austria) and Prof. Michael D. Logothetis (University of Patras, Greece);

CSNDSP Steering Committee Chair: Prof. Zabih Ghassemlooy (Northumbria University, UK);

Dean of the Faculty of Electronics and Telecommunications, Prof. Paweł Szulakiewicz (Poznan University of Technology, Poland)

Local chair: Prof. Mariusz Głabowski (Poznan University of Technology, Poland); Technical chair: Dr. Piotr Zwierzykowski (Poznan University of Technology, Poland)

## 2. Statistics of paper submission

The CSNDSP2012 received a large number of papers, 241 submissions, from 41 countries. 174 papers were accepted. The structure of papers submission is presented below.

Region	Authors	%
Europe, Middle East, Africa	431	75.9
Asia/Pacific	121	21.3
United States	8	1.4
Latin America	6	1.1
Canada	2	0.4

Each paper was reviewed by at least two independent reviewers and the authors were given the opportunity to respond to the reviewers' comments, revise and resubmit their paper. All the accepted and presented papers are published in the IEEE Xplore.

## 3. The conference program

The CSNDSP, except for the main track, also included three colloquiums on:

- Satellite and Space Communications,
  - Photonic Communications Systems and Networks,
  - Optical Wireless Communications,
- and a tutorial on Overview of Survivability and Fault Management in Optical Networks.

The programme included internationally known keynote speakers presenting overviews of current research in topical areas:

- Prof. Izzat Darwazeh from University College London, UK
- Dr. Frank Deicke from Fraunhofer Institute for Photonic Microsystems, Dresden, Germany
- Dr. Haris Gacanin from Alcatel-Lucent Bell N.V., Antwerp, Belgium
- Prof. Maciej Stasiak from Poznan University of Technology, Poznan, Poland
- Prof. Zhengyuan Xu from Tsinghua University, Beijing, China

The CSNDSP2012 conference also included special sessions organized by experts in the field, i.e. :

- Antenna Technology for Satellites and Terrestrial Wireless Systems
- Chaos in Communication Systems
- Complex Networks in Signal Processing and Communication Systems
- Emerging Technologies for Secure, Intelligent, and Energy-Efficient Optical
- Communication Networks
- Next Generation Wireless LANs
- Resilient Optical and Wireless Networks Design
- Routing Algorithms and Optimization Techniques in Packet Networks
- Signal and Image Processing Systems and Techniques for Medical Monitoring and Diagnosis: New Developments and Applications

- Teletraffic Models, Traffic Engineering and Network Optimization

## 4. IEICE Panel discussion

The CSNDSP conference also organised the plenary panel session entitled "Theoretical and practical aspects of research and development activities". Prof. Mariusz Głabowski from Poznan University of Technology was the moderator for the panel session, while the panelists included:

- Dr. Haris Gacanin, the chair of Europe Section of IEICE (Alcatel-Lucent Bell N.V., Antwerp, Belgium)
- Monika Grajzer (Telcordia, Poznan, Poland)
- Bartosz Musznicki (INEA S.A, Poznan, Poland).

The panel session was well attended by both PhD students and research workers of Poznan University of Technology.

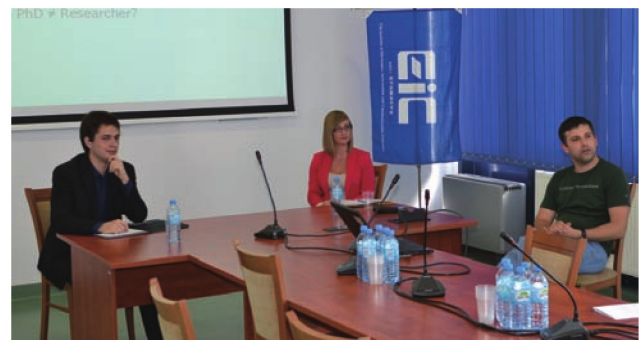


Fig. 2 IEICE Panelists: Bartosz Musznicki, Monika Grajzer, Haris Gacanin

## 5. Awards and grants

One of the basic objectives of the CSNDSP conference is to provide a platform for young scientists from developing countries to present their ideas and work. This year, young participants of the conference were granted two registration waivers and eight travel grants. The CSNDSP 2012 Chairs awarded two equivalent Best Paper Awards:

- Nicolas K. Fontaine, Ryan P. Scott, David J. Geisler, and S. J. B. Yoo: Dynamic Optical Arbitrary Waveform Generation and Measurement to Increase the Flexibility, Fidelity and Bandwidth of Optical Networks
- Joon-Yong Lee, Chang Kyeong Kim, Dong-Woo Ha, Seun Sangodoyin, Ruiqing Dong: UWB Propagation Measurements in BAN Scenarios

## 6. Conclusions

On behalf of the Local Organizing Committee I would like to thank all the authors, the Steering Committee members, Technical Program Committee members and the reviewers for their contribution to the success of CSNDSP2012.

I would also like to thank IEICE and INEA S.A. for their financial sponsorship which ensured that the CSNDSP 2012 conference was open not only to the authors of the accepted papers and registered participants, but also to all students interested in information and communication technology.