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Krzysztof S. Kulpa
Editors

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## Contents

<table>
<thead>
<tr>
<th>Session</th>
<th>Image Processing, Optical Biometry</th>
</tr>
</thead>
</table>
| 7502 01 | Photonics and web engineering in Poland, WILGA 2009 (Invited Paper) [7502-01]  
R. S. Romaniuk, Warsaw Univ. of Technology (Poland) |
| 7502 02 | Filter-less gray patterns detection in 3D modeling by structured light (Invited Paper) [7502-02]  
W. Skarbek, A. Nowakowski, Warsaw Univ. of Technology (Poland) |
| 7502 03 | Using GPU for face detection [7502-03]  
J. Naruniec, Warsaw Univ. of Technology (Poland) |
| 7502 04 | Teaching image processing and pattern recognition with the Intel OpenCV library [7502-04]  
A. Kozłowski, A. Królak, Technical Univ. of Lodz (Poland) |
| 7502 05 | Steering angle prediction using neural networks and look-up table for different drivers [7502-05]  
A. Vidugirienė, A. Demčenko, M. Tamošiūnaitė, Vytautas Magnus Univ. (Lithuania) |
| 7502 06 | The H.264/MPEG4 advanced video coding [7502-06]  
A. Gromek, Warsaw Univ. of Technology (Poland) |
| 7502 07 | FPGA implementation of image enhancement techniques [7502-07]  
K. Kumar, A. Jain, A. K. Srivastava, Jaypee Institute of Information Technology Univ. (India) |
| 7502 08 | Applying of HDR algorithm as a method of SAR image quality improvement [7502-08]  
M. Smolarczyk, Przemysłowy Instytut Telekomunikacji S.A. (Poland) |
| 7502 09 | Constant rate control algorithm for Wyner-Ziv video codec [7502-09]  
M. Jakubowski, Warsaw Univ. of Technology (Poland) |
| 7502 10 | Using color for face verification [7502-10]  
M. Leszczynski, Warsaw Univ. of Technology (Poland) |
| 7502 11 | Hands segmentation algorithms for colour and graylevel images [7502-11]  
M. Jędryka, W. Skarbek, Warsaw Univ. of Technology (Poland) |
SESSION 2  OPTICAL ASTRONOMY AND SPACE TECHNOLOGY

7502 0D  General overview of the "Pi of the Sky" system (Invited Paper) [7502-12]
K. Malek, Ctr. for Theoretical Physics (Poland); T. Batsch, The Andrzej Soltan Institute for Nuclear Studies (Poland); M. Cwiok, W. Dominik, Univ. of Warsaw (Poland); G. Kasprowicz, Warsaw Univ. of Technology (Poland); A. Majcher, A. Majczyna, The Andrzej Soltan Institute for Nuclear Studies (Poland); L. Mankiewicz, Ctr. for Theoretical Physics (Poland); K. Nawrocki, The Andrzej Soltan Institute for Nuclear Studies (Poland); R. Pietrzak, Space Research Ctr. (Poland); L. W. Piotrowski, Univ. of Warsaw (Poland); M. Ptasinska, M. Siudek, Warsaw Univ. of Technology (Poland); M. Sokolowski, J. Uzycki, The Andrzej Soltan Institute for Nuclear Studies (Poland); P. Wawer, R. Wawrzaszek, Space Research Ctr. (Poland); G. Wrochna, The Andrzej Soltan Institute for Nuclear Studies (Poland); M. Zaremba, Warsaw Univ. of Technology (Poland); A. F. Zarnecki, Univ. of Warsaw (Poland)

7502 0E  Laboratory measurements of the "Pi of the Sky" optical system [7502-13]
L. W. Piotrowski, A. F. Żarnecki, Univ. of Warsaw (Poland); G. Stępniak, Warsaw Univ. of Technology (Poland)

7502 0F  Detection of short optical transients of astrophysical origin in real time [7502-14]
M. Sokolowski, The Andrzej Soltan Institute for Nuclear Studies (Poland); K. Malek, Ctr. for Theoretical Physics (Poland); L. W. Piotrowski, Univ. of Warsaw (Poland); G. Wrochna, The Andrzej Soltan Institute for Nuclear Studies (Poland)

7502 0G  Gamma-ray bursts and GRB080319B [7502-15]
A. Majcher, T. Batsch, The Andrzej Soltan Institute for Nuclear Studies (Poland); M. Cwiok, W. Dominik, Univ. of Warsaw (Poland); G. Kasprowicz, Warsaw Univ. of Technology (Poland); A. Majczyna, The Andrzej Soltan Institute for Nuclear Studies (Poland); K. Malek, L. Mankiewicz, Ctr. for Theoretical Physics (Poland); K. Nawrocki, The Andrzej Soltan Institute for Nuclear Studies (Poland); R. Pietrzak, Space Research Ctr. (Poland); L. W. Piotrowski, Univ. of Warsaw (Poland); M. Ptasinska, M. Siudek, Warsaw Univ. of Technology (Poland); M. Sokolowski, The Andrzej Soltan Institute for Nuclear Studies (Poland); J. Uzycki, The Andrzej Soltan Institute for Nuclear Studies (Poland); P. Wawer, R. Wawrzaszek, Space Research Ctr. (Poland); G. Wrochna, The Andrzej Soltan Institute for Nuclear Studies (Poland); M. Zaremba, Warsaw Univ. of Technology (Poland); A. F. Zarnecki, Univ. of Warsaw (Poland)

7502 0H  Variable stars classification based on photometric data from the "Pi of the Sky" project [7502-16]
A. Majczyna, The Andrzej Soltan Institute for Nuclear Studies (Poland); M. Należyty, Univ. of Warsaw Astronomical Observatory (Poland); M. Siudek, Warsaw Univ. of Technology (Poland); K. Matek, Ctr. for Theoretical Physics (Poland); A. Barnacka, Copernicus Astronomical Ctr. (Poland); L. Mankiewicz, Ctr. for Theoretical Physics (Poland); A. F. Żarnecki, Univ. of Warsaw (Poland)

7502 0I  Integrated system for monitoring and control of the "Pi of the Sky" experiment [7502-17]
K. Nawrocki, The Andrzej Soltan Institute for Nuclear Studies (Poland); M. Ptasińska, M. Zaremba, Warsaw Univ. of Technology (Poland)

7502 0J  Possible use of the 'Pi of the Sky' system in a space situational awareness program [7502-18]
R. Wawrzaszek, P. Wawer, Space Research Ctr. (Poland); M. Sokolowski, K. Nawrocki, The Andrzej Soltan Institute for Nuclear Studies (Poland); R. Pietrzak, Space Research Ctr. (Poland); K. Malek, Ctr. for Theoretical Physics (Poland); M. Zaremba, Warsaw Univ. of Technology (Poland); L. W. Piotrowski, Univ. of Warsaw (Poland)
Study of amplitude fluctuation spectrum of geostationary satellite signals at different atmospheric conditions [7502-19]
I. M. Mytsenko, D. D. Khalameyda, Institute of Radiophysics and Electronics (Ukraine)

The communication subsystem of Masat-1, the first Hungarian satellite [7502-20]
L. Dudás, L. Varga, R. Seller, Budapest Univ. of Technology and Economics (Hungary)

Space platform for student CubeSat pico-satellite [7502-21]
M. Stolarski, M. Dobrowolski, R. Graczyk, K. Kurek, Warsaw Univ. of Technology (Poland)

PW-Sat on-board flight computer, hardware and software design [7502-22]
M. Mosdorf, M. Kurowski, L. Mosdorf, A. Cichocki, Mosdorf, M. Kocorn, Warsaw Univ. of Technology (Poland)

Processing of sliding spotlight mode data with consideration of orbit geometry (Invited Paper) [7502-23]
A. Ossowska, R. Speck, German Aerospace Ctr. DLR (Germany)

Radiation results of the SEE test of Xilinx XC3S400 FPGA instances [7502-24]
S. Korolczuk, Warsaw Univ. of Technology (Poland); D. Rybka, Warsaw Univ. of Technology (Poland) and The Andrzej Soltan Institute for Nuclear Studies (Poland); T. Szczesniak, R. Marcinkowski, Ł. Świderski, The Andrzej Soltan Institute for Nuclear Studies (Poland)

SESSION 3 RADAR TECHNOLOGY

Passive bistatic radar analysis [7502-25]
D. W. O'Hagan, H. Kuschel, J. Schiller, FGAN – Research Establishment for Applied Science (Germany)

Low-flying target position finding with a seismic system (Invited Paper) [7502-26]
J. Cechak, P. Hubacek, J. Vesely, Univ. of Defence (Czech Republic)

Low-flying target detection: a surface seismic waves application [7502-27]
J. Cechak, P. Bojda, Univ. of Defence (Czech Republic)

Bistatic passive radar simulator with spatial filtering subsystem [7502-28]
R. Hossa, B. Szlachetko, A. Lewandowski, M. Górski, Wroclaw Univ. of Technology (Poland)

Beamforming strategy of ULA and UCA sensor configuration in multistatic passive radar [7502-29]
R. Hossa, Wroclaw Univ. of Technology (Poland)

Fixed WiMAX (IEEE 802.16d) base station signal analysis for passive radar applications [7502-30]
M. Malanowski, K. Kulpa, Warsaw Univ. of Technology (Poland); M. Dryarski, S. Pietrzyk, Innovative Solutions (Poland)

Preliminary results of noise radar experiments [7502-31]
M. Malanowski, C. Contartese, Ł. Mašlikowski, M. Bączyk, K. Kulpa, Warsaw Univ. of Technology (Poland)
**SESSION 4** NAVIGATION AND TARGET TRACKING

7502 0X **Synthetic range profiling in ground penetrating radar** [7502-32]
P. Kaczmarek, M. Łapiński, D. Silko, Military Univ. of Technology (Poland)

7502 0Y **Geometrical arrangement of multilateration surveillance system components by means of Cramer-Rao lower bound analysis** [7502-33]
I. Konchenko, F. Yanovsky, National Aviation Univ. (Ukraine)

7502 0Z **Non-iterative autofocus algorithm for GMTI sigma-delta STAP processing** [7502-34]
P. Samczyński, Przemysłowy Instytut Telekomunikacji S.A. (Poland) and Warsaw Univ. of Technology (Poland); G. Pietrzyk, Przemysłowy Instytut Telekomunikacji S.A. (Poland); K. Kulpa, Warsaw Univ. of Technology (Poland)

7502 10 **Determination of the soil structure and moisture under the area of "Kirilov" church of the National Sanctuary "Sophia of Kiev" by georadar sensing** [7502-35]
E. Kozan, A. Sugak, V. Sugak, Usikov Institute of Radiophysics and Mathematics (Ukraine)

7502 11 **Mean velocity of raindrops at orthogonal polarizations of radar sounding waveform** [7502-36]
D. Glushko, F. J. Yanovsky, National Aviation Univ. (Ukraine)

7502 12 **Fuzzy detection and classification of dangerous weather phenomena using dual-polarimetric radar measurements** [7502-37]
V. Tho Dang, F. J. Yanovsky, National Aviation Univ. (Ukraine)

7502 13 **Simulation of wind shear detection by radar system** [7502-38]
J. Pristavka, National Aviation Univ. (Ukraine)

7502 14 **Application of the GNU Radio platform in the multistatic radar** [7502-39]
B. Szlachetko, A. Lewandowski, Wroclaw Univ. of Technology (Poland)

7502 15 **Phase errors due to distortions in synthetic aperture antenna pattern of noise waveform d-InSAR** [7502-40]
P. Vyplavin, Institute of Radiophysics and Electronics (Ukraine)

7502 16 **Dead reckoning navigation: supplementing pedestrian GPS with an accelerometer-based pedometer and an electronic compass** [7502-41]
P. Barański, M. Bujacz, P. Strumillo, Technical Univ. of Lodz (Poland)

7502 17 **Sensor set stabilization system for miniature UAV** [7502-42]
W. Komorniczak, T. Górski, A. Kawalec, J. Pietrasinski, Military Univ. of Technology (Poland)

7502 18 **Digital navigation system for miniature quadrocopter UAV** [7502-43]
W. Komorniczak, T. Górski, M. Maciejewski, A. Wrońska, C. Zych, WB Electronics Sp. Z.o.o. (Poland)

7502 19 **An adaptive target tracking algorithm for fluctuating signals** [7502-44]
D. Janczak, Y. P. Grishin, A. Nikolajew, Bialystok Technical Univ. (Poland)
<table>
<thead>
<tr>
<th>Session 5: SIGNAL FILTERS AND DSP</th>
</tr>
</thead>
</table>
| **7502 1A** | Radar waveform diversity for tracking *(Invited Paper)*  
Y. Grishin, Bialystok Technical Univ. (Poland) |
| **7502 1B** | An algorithm for 3D target localization from passive radar measurements *(Invited Paper)*  
M. Malanowski, Warsaw Univ. of Technology (Poland) |
| **7502 1C** | Speech compression using zeros-ones-position method *(Invited Paper)*  
A.-R. Al-Qawasmi, Philadelphia Univ. (Jordan); A. Al-Lawama, Mutah Univ. (Jordan);  
N. Al-Khatib, Philadelphia Univ. (Jordan) |
| **7502 1D** | Robust adaptive detection with angular rejection *(Invited Paper)*  
S. De Nicola, A. De Maio, Univ. degli Studi di Napoli Federico II (Italy); A. Farina, SELEX Sistemi Integrati S.p.A. (Italy) |
| **7502 1E** | Computation of continuous wavelet transform of discrete signals with adapted mother functions  
A. Popov, M. Zhukov, National Technical Univ. of Ukraine Kyiv Polytechnic Institute (Ukraine) |
| **7502 1F** | An algorithm for parametric modelling of a series of time intervals  
K. Kudrynski, P. Strumilo, Technical Univ. of Lodz (Poland) |
| **7502 1G** | Gain deficit effect in the fractional delay filter design by the window method  
M. Sac, M. Blok, Gdansk Univ. of Technology (Poland) |
| **7502 1H** | An approach to description of fuzzy filters *(Invited Paper)*  
B. S. Butkiewicz, Warsaw Univ. of Technology (Poland) |
| **7502 1I** | Time-frequency analysis using NVIDIA compute unified device architecture *(CUDA)*  
J. Kulpa, Warsaw Univ. of Technology (Poland) |
| **7502 1J** | Low-order modelling of head related transfer functions based on spectral smoothing and principal component analysis  
M. Pec, P. Strumilo, Technical Univ. of Lodz (Poland) |
| **7502 1K** | Nonlinear filtration of the spoken language signals  
L. V. Kolchenko, R. B. Sinitsyn, National Aviation Univ. (Ukraine) |
| **7502 1L** | Walsh-Hadamard transform and its application in linearity testing of Boolean functions  
M. Woś, Warsaw Univ. of Technology (Poland) |
| **7502 1M** | Nonlinear dynamics approach to speech detection in noisy signals  
Ł. J. Bronakowski, Technical Univ. of Lodz (Poland) |
| **7502 1N** | Project of universal DSP platform: cluster of floating point DSP processors  
Ł. Dymanowski, K. Lewandowski, M. Linczuk, Warsaw Univ. of Technology (Poland) |
### SESSION 6  SIGNAL MODULATION, TRANSMISSION AND DETECTION

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7502 1O</td>
<td>Structural optimization of least-squares support vector classifier based on virtual leave-one-out residuals.</td>
<td>S. Jankowski, Z. Szymański</td>
<td>Warsaw Univ. of Technology (Poland)</td>
</tr>
<tr>
<td>7502 1P</td>
<td>Optimum pulse shaping application of Walsh-functions used in MSK</td>
<td>I. N. Abu-Isbeih, M. Maqusi</td>
<td>Philadelphia Univ. (Jordan), Texas Tech Univ. (United States)</td>
</tr>
<tr>
<td>7502 1Q</td>
<td>Transmission over UWB channels with OFDM system using LDPC coding</td>
<td>G. Dziwoki, W. Sutek</td>
<td>Silesian Univ. of Technology (Poland)</td>
</tr>
<tr>
<td>7502 1R</td>
<td>Educational model of the OFDM modulator and demodulator</td>
<td>Ł. Ćwikowski, M. Blok</td>
<td>Telecommunications Research Institute S.A. (Poland), Gdansk Univ. of Technology (Poland)</td>
</tr>
<tr>
<td>7502 1S</td>
<td>An effective CFO estimation method for OFDM transmission</td>
<td>M. Purchla-Malanowska, M. Blok</td>
<td>Warsaw Univ. of Technology (Poland)</td>
</tr>
<tr>
<td>7502 1T</td>
<td>Comparison of hybrid adaptive blind equalizers for QAM signals</td>
<td>A. Labed, A. Aissa-El-Bey, T. Chonavel</td>
<td>EMP (Algeria), ENP (Algeria), Institut TELECOM (France) and Univ. Européenne de Bretagne (France)</td>
</tr>
<tr>
<td>7502 1U</td>
<td>Wireless system for explosion detection in underground structures</td>
<td>M. Chikhradze, M. Kowalczyk</td>
<td>Mining Institute (Georgia)</td>
</tr>
<tr>
<td>7502 1V</td>
<td>FM transmission of video signals beyond of the baseband of a 1-km 62.5 μm multimode fibre at the 850 nm wavelength</td>
<td>M. Kowalczyk, M. Chikhradze</td>
<td>Warsaw Univ. of Technology (Poland)</td>
</tr>
<tr>
<td>7502 1W</td>
<td>Detection of Markovian signals on the background of Markovian interferences: prior uncertainty case</td>
<td>I. G. Prokopenko, F. Yanovsky</td>
<td>National Aviation Univ. (Ukraine)</td>
</tr>
<tr>
<td>7502 1X</td>
<td>Reflected signal depolarization estimate with single transceiving antenna</td>
<td>Yu. Averyanova, A. Averyanov, F. Yanovsky</td>
<td>National Aviation Univ. (Ukraine)</td>
</tr>
<tr>
<td>7502 1Y</td>
<td>Ultrabroadband photonic Internet: data mining approach to security aspects</td>
<td>A. Kalicki</td>
<td>Warsaw Univ. of Technology (Poland)</td>
</tr>
</tbody>
</table>

### SESSION 7  LASERS, MATERIALS, OPTICAL FIBERS AND OPTOELECTRONICS

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7502 1Z</td>
<td>Development of free electron laser and accelerator technology in Poland (CARE and EuCARD projects)</td>
<td>R. S. Romaniuk, R. S. Romaniuk</td>
<td>Warsaw Univ. of Technology (Poland)</td>
</tr>
</tbody>
</table>
Institute of electronic systems in CARE and EuCARD projects accelerator and FEL research, development and applications in Europe [7502-71]
R. S. Romaniuk, Warsaw Univ. of Technology (Poland)

Multichannel acquisition system with photomultiplier detectors [7502-72]
M. Bohdanowicz, G. Kasprowicz, Warsaw Univ. of Technology (Poland)

Nd³⁺/Yb³⁺ energy transfer in oxyfluoride silicate glass [7502-73]
J. Żmoyda, D. Dorosz, M. Kochanowicz, Białystok Univ. of Technology (Poland)

Raman and SEM studies of nanocrystalline Pd-carbonaceous films [7502-74]
E. Czerwosz, E. Kowalska, Tele & Radio Research Institute (Poland); R. Belka, J. Kęczkowska, M. Suchańska, Kielce Univ. of Technology (Poland); H. Wronka, J. Radomska, Tele & Radio Research Institute (Poland); M. Plaza, Kielce Univ. of Technology (Poland); U. Schmidt, WiTec Wissenschaftliche Instrumente und Technologie GmbH (Germany)

FEM modelling of nanoindentation experiment for nanostructural Me-carbon film (Me = Pd, Ni) [7502-75]
J. Rymarczyk, E. Czerwosz, Tele & Radio Research Institute (Poland) and The Jan Kochanowski Univ. (Poland); A. Richter, Univ. of Applied Sciences (Germany)

Coherent beam combining of active multicore optical fiber [7502-76]
M. Kochanowicz, D. Dorosz, J. Żmoyda, Białystok Technical Univ. (Poland)

Data acquisition system for ion-selective potentiometric sensors (Invited Paper) [7502-77]
A. Filipkowski, J. Ogrodzki, L. J. Opalski, R. Rybaniec, P. Z. Wieczorek, Warsaw Univ. of Technology (Poland)

Chemical sensors for water monitoring: diversity of approaches to behavioral modeling [7502-78]
J. Ogrodzki, Warsaw Univ. of Technology (Poland)

Universal measurement system with web interface [7502-79]
M. M. Lipiński, G. Kasprowicz, Warsaw Univ. of Technology (Poland)

Application of double frequency radar for the remote sensing of solid aerosols [7502-80]
A. Linkova, Institute of Radiophysics and Electronics (Ukraine)

Cryptographic random number generators for low-power distributed measurement system [7502-81]
P. Czernik, J. Olszyna, Warsaw Univ. of Technology (Poland)

Random signal sodar for meteorology [7502-82]
Z. M. Bokal, R. B. Sinitsyn, National Aviation Univ. (Ukraine)

Maintaining complex and distributed measurement systems with component internal interface framework [7502-83]
P. Drabik, K. T. Pozniak, Warsaw Univ. of Technology (Poland)
### SESSION 9 DATABASES GENETICS AND BIOMEDICAL APPLICATIONS

**7502 2D** Project and realization of fast A/D and D/A conversion channel using FPGA to analyze and process signals [7502-84]
T. Janicki, K. T. Pozniak, Warsaw Univ. of Technology (Poland)

**7502 2E** Detecting data anomalies methods in distributed systems [7502-85]
L. Mosiej, Warsaw Univ. of Technology (Poland)

**7502 2F** Thermal systems for landmine detection [7502-86]
M. D’Angelo, L. Del Vecchio, S. Esposito, M. Balsi, Univ. degli Studi di Roma La Sapienza (Italy); S. Jankowski, Warsaw Univ. of Technology (Poland)

**7502 2G** Application of differential evolution algorithm for automatic constructing and adapting radial basis function neural networks [7502-87]
D. Rymszo, S. Jankowski, Warsaw Univ. of Technology (Poland)

**7502 2H** Knowledge discovery in ophthalmology: analysis of wet form of age-related macular degeneration treatment outcomes (Invited Paper) [7502-88]
M. Ulińska, Warsaw Medical Univ. (Poland); E. Tataj, J. J. Mulawka, Warsaw Univ. of Technology (Poland); J. Szaflik, Warsaw Medical Univ. (Poland)

**7502 2I** Discomfort glare measurement [7502-89]
U. J. Blaszczak, Bialystok Technical Univ. (Poland)

**7502 2J** Statistical relationship discovery in SNP data using Bayesian networks [7502-90]
P. Szlendak, R. M. Nowak, Warsaw Univ. of Technology (Poland)

**7502 2K** Data mining approach to the evaluation of diagnostic tests in Wilson disease (Invited Paper) [7502-92]
M. M. Plutecki, Warsaw University of Technology (Poland); M. Dadalski, P. Socha, The Children Memorial Health Institute (Poland); J. J. Mulawka, Warsaw Univ. of Technology (Poland)

**7502 2L** Application of Weka environment to determine factors that stand behind non-alcoholic fatty liver disease (NAFLD) [7502-93]
M. M. Plutecki, Warsaw Univ. of Technology (Poland); A. Wierzbicka, P. Socha, The Children Memorial Health Institute (Poland); J. J. Mulawka, Warsaw Univ. of Technology (Poland)

**7502 2M** Detection of blood vessels in human brain: 3D magnetic resonance images with the use of mathematical morphology and region growing algorithms [7502-94]
A. Sankowski, A. Materka, Technical Univ. of Lodz (Poland)

**7502 2N** Method and system for measuring of selected optical parameters of the biological tissue subjected to biostimulation treatment [7502-95]
L. Gryko, Bialystok Univ. of Technology (Poland); A. Zajac, Bialystok Univ. of Technology (Poland) and Military Univ. of Technology (Poland)

**7502 2O** Cell broadband engine architecture as a DSP platform [7502-96]
K. Szumski, M. Malanowski, Warsaw Univ. of Technology (Poland)
Epileptic database exploration via the R environment [7502-97]
D. Dunin-Wąsowicz, The Children's Memorial Health Institute (Poland); P. Zieliński, Warsaw Univ. of Technology (Poland)

Detecting a proper patient with a help of medical data retrieval [7502-98]
T. Matecka-Massalska, R. Maciejewski, Medical Univ. of Lublin (Poland); P. Wąsiewicz, The Warsaw Univ. of Technology (Poland); W. Zatuska, A. Książek, Medical Univ. of Lublin (Poland)

Data mining analysis of factors influencing children's blood pressure in a nation-wide health survey [7502-99]
P. Wąsiewicz, Warsaw Univ. of Technology (Poland); Z. Kutaga, M. Litwin, Children's Memorial Health Institute (Poland)

Proper medical diagnosis and treatment with computer aided system [7502-100]
T. Pedowski, Medical Univ. of Lublin (Poland); P. Wasiewicz, Warsaw Univ. of Technology (Poland); R. Maciejewski, Medical Univ. of Lublin (Poland) and Institute of Biomedical Informatics (Poland); G. Wallner, Medical Univ. of Lublin (Poland)

Application of differential evolution for optimization of least-square support vector machine classifier of signal-averaged electrocardiograms [7502-101]
S. Kryś, S. Jankowski, E. Piatkowska-Janko, Warsaw Univ. of Technology (Poland)

Author Index
WILGA 2009 Symposium Committees

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WILGA 2009 Symposium Session Chairs

1 Distributed Measurement Systems
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Wieslaw Winiecki, Warsaw University of Technology (Poland)

2 Apparatus for Optical and Gamma Ray Astrophysical Observations
Filip A. Żarnecki, Warsaw University (Poland)
Lech Mankiewicz, Polish Academy of Sciences (Poland)

3 Optical Fiber Bragg Gratings
Kazimierz Jędrzejewski, Warsaw University of Technology (Poland)

4 Optical Fiber Technology
Jan Dorosz, Bialystok University of Technology (Poland)

5 Distributed Measurement Systems
Tomasz Adamski, Warsaw University of Technology (Poland)
Wiesław Winiecki, Warsaw University of Technology (Poland)

6 WARMER
Andrzej Filipkowski, Warsaw University of Technology (Poland)

7 Optoelectronics
Michał Borecki, Warsaw University of Technology (Poland)
8  Image Processing
    Władysław Skarbek, Warsaw University of Technology (Poland)

9  Optical Communications
    Przemysław Krehlik, AGH University, Kraków (Poland)

10 Laser Technology
    Ryszard S. Romaniuk, Warsaw University of Technology (Poland)

11 Knowledge Discovery in Large Databases
    Jan J. Mulawka, Warsaw University of Technology (Poland)

12 Data Categorization
    Stanisław Jankowski, Warsaw University of Technology (Poland)

13 Photonics and Electronics for HEP Experiments
    Krzysztof T. Poźniak, Warsaw University of Technology (Poland)
    Maciej Linczuk, Warsaw University of Technology (Poland)

14 LHC and CMS
    Jan Królikowski, Warsaw University (Poland)

15 Photonics and Web Engineering I
    Maciej Linczuk, Warsaw University of Technology (Poland)

16 Photonics and Web Engineering II
    Ryszard S. Romaniuk, Warsaw University of Technology (Poland)

17 WILGA 2009 SPIE Best Student Paper Awards
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Jachranka 2009 Symposium Session Chairs

1  Civilian Applications of Airborne SAR Systems
    Krzysztof S. Kulpa, Warsaw University of Technology (Poland)
    Maj Mordzonek, Przemysłowy Instytut Telekomunikacji S.A. (Poland)

2  Passive Radars
    Joachim Schiller, FGAN - Research Establishment of Applied Science (Germany)
    Jerzy Goca, Przemysłowy Instytut Telekomunikacji S.A. (Poland)
3  Signal Processing
   Anna Dzvonkovskaya, University of Hamburg (Germany)
   Wojciech Komorniczak, Military University of Technology, Warsaw (Poland)

4  DSP in Radars, Posters
   Mikheil Chikhradze, G.Tsulukidze Mining Institute (Georgia)
   Piotr Samczyński, Warsaw University of Technology (Poland)

5  Radar I
   Felix J. Yanovsky, National Aviation University (Ukraine)
   Jacek Misiurewicz, Warsaw University of Technology (Poland)

6  Image Processing / Signal Processing II
   Abdel-Rahman Al-Qawasmi, Philadelphia University (Jordan)
   Robert Hossa, Wroclaw University of Technology (Poland)

7  Radar II
   Yulia Averyanova, National Aviation University (Ukraine)
   Mateusz Malanowski, Warsaw University of Technology (Poland)

8  Medical Signal Processing
   Pavlo Vyplavin, Institute of Radiophysics & Electronics, NASU (Ukraine)
   Bohdan Butkiewicz, Warsaw University of Technology (Poland)

9  SAR / Noise Radars
   Daniel O’Hagan, FGAN – Research Establishment of Applied Science (Germany)
   Jerzy Pietrasiński, Military University of Technology (Poland)

10 Radar Phenomenology / Radar Polarimetry
    Jarosław Cechak, University of Defence (Czech Republic)
    Zbigniew Czekala, RADWAR S.A. (Poland)

11 Navigation Technology
    Natalie Kasperovych, National Aviation University (Ukraine)
    Maciej Smolarczyk, Przemysłowy Instytut Telekomunikacji S.A. (Poland)

12 Radio Frequency Technology / Telecommunications
    Ibrahim N. Abu-Isbeih, Philadelphia University (Jordan)
    Krzysztof Kurek, Warsaw University of Technology (Poland)

13 Security / Ground Penetration
    Konstantin Lukin, Institute of Radiophysics & Electronics, NASU (Ukraine)
    Adam Kawalec, Military University of Technology (Poland)
14 Communications / Space Technology
Alicja Ossowska, German Aerospace Center DLR (Germany),
Tomasz Górski, Military University of Technology (Poland)

15 Lectures on Radar Technology
Krzysztof S. Kulpa, Warsaw University of Technology (Poland)

16 SPS 2009 Best Student Paper Awards and Best Poster Presentation Awards
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1 Image Processing, Optical Biometry
   Wladyslaw Skarbek, Warsaw University of Technology (Poland)

2 Optical Astronomy and Space Technology
   Filip Zarnecki, Warsaw University (Poland)
   Lech Mankiewicz, Polish Academy of Sciences

3 Radar Technology
   Krzysztof S. Kulpa, Warsaw University of Technology (Poland)

4 Navigation and Target Tracking
   Maj Mordzonek, Industrial Institute of Telecommunications, Warsaw (Poland)

5 Signal Filters and DSP
   Felix J. Yanovsky, National Aviation University, Kiev (Ukraine)

6 Signal Modulation, Transmission and Detection
   Jacek Misiurewicz, Warsaw University of Technology (Poland)

7 Lasers, Materials, Optical Fibers and Optoelectronics
   Ryszard S. Romaniuk, Warsaw University of Technology (Poland)
8 Sensors, Remote Sensing and Measurement Networks
Tomasz Adamski, Warsaw University of Technology (Poland)
Wieslaw Winiecki, Warsaw University of Technology (Poland)

9 Databases Genetics and Biomedical Applications
Jan J. Mulawka, Warsaw University of Technology (Poland)
Introduction

The SPIE-IEEE-PSP WILGA symposium is part of international Forum of Young Science. It is annually organized under the eminent patronage of two international engineering institutions, SPIE [www.spie.org], IEEE [www.ieee.org], and their Polish Counterparts: Photonics Society of Poland [www.photonics.pl], the successor of the Polish Chapter of SPIE [www.spie.pl], and IEEE Poland Section [www.ieee.pl]. The patrons of the symposium are: the Polish Academy of Science (The Committee on Electronics and Telecommunication) [keit.pan.pl], Association of Polish Electrical Engineers (SEP) [www.sep.com.pl], and Warsaw University of Technology [www.pw.edu.pl].

The official language of the Symposium was English and the peer-reviewed papers are being published in the world renowned Proceeding of SPIE. The symposium was designed mainly for Ph.D., M.Sc., and B.Sc. students (from physics, electronics and mechatronics) and their tutors/mentors. WILGA displayed a number of primary topics, the first being Photonics and Web Engineering. Generally, WILGA embraces advanced photonic and electronic systems in the following ways: theory, modeling, algorithms, simulations, design, hardware, software, hardware-software interaction, measurements, testing, commissioning, and exploitation.

The topical sessions are organized by leading experts and usually begin with current tutorials and are filled with contributed papers by students and young researchers. One of the most important session tracks in WILGA is the photonics applications and systems for superconductive accelerator technology (and free electron laser) and high energy physics experiments. We warmly invite students, young researchers, and their tutors to participate in WILGA conferences.

WILGA 2009 was held on 25-31 May at a resort owned by the Warsaw University of Technology. There were 200 presentations delivered covering a broad range of photonics applications and web engineering topics.

The Jachranka 2009 VI Signal Processing Symposium (SPS-2009) was held on 28-30 May 2009 at the GUS Holiday Camp in Jachranka Village near Warsaw. The main goal of the symposium was to create a forum for students and scientists to present their latest research results, new trends in science and technology, and exchange ideas during the technical and evening sessions.
The Jachranka meeting was part of the 24th SPIE-IEEE Symposium on Advanced Photonics, Electronics Systems, and Web Engineering. The SPS-2009 conference was organized by the Institute of Electronic Systems and Warsaw University of Technology together with the Przemyslawy Instytut Telekomunikacji S.A., Military University of Technology, RADWAR S.A, Space Research Center of Polish Academy of Sciences, Foundation for Development of Radiocommunication and Multimedia Technologies, IEEE Signal Processing Society Poland Chapter, and IEEE AES Poland Chapter.

In 2003 Dr. K. Kulpa chaired and organized the first Digital Signal Processing and Radar Signal Processing Sessions of the 12th IEEE-SPIE Symposium on Advanced Photonics and Electronics. In 2005 and 2007 students from The Radiolocation and Digital Signal Processing Students’ Research Group, along with Dr. Kulpa, decided to organize the second and third edition of the Signal Processing Symposium, which was a part IEEE-SPIE Symposium on Photonics, Electronics, and Web Engineering. SPS-2005 and SPS 2007 gathered more than 100 participants and have been considered very successful events, a fact that has led the Radar Group of ISE to organize for the fourth time to create the Signal Processing Symposium, SPS-2009.

Ryszard S. Romaniuk
Krzysztof S. Kulpa