



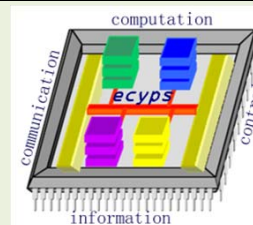
The 7th Mediterranean Conference on Embedded Computing
&
The 6th EUROMICRO/IEEE Workshop on Embedded and Cyber-Physical Systems

MECO2018 and ECYPS2018

Detailed Program, Ver June 04

Budva, Montenegro June 10-14, 2018

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KEYNOTES and GENERAL SCHEDULE

DAY I, June 11: MEDICINE AND TECHNOLOGY

08:00-09:30 Registration
09:30-10:00 Opening Addresses by Special Guests
10:00-10:45 Keynote: Richard Timothy Hunt, Nobel Laureate
10:45-11:30 Keynote: Zoran Krivokapic, Serbian Academy of Arts and Sciences
11:30-12:00 Break
12:00-14:00 Oral Presentations
14:00-15:30 Lunch Break
15:30-17:30 Poster Presentations
17:30-18:00 Break
18:00-18:45 Keynotes: Rainer Leupers, RWTH Aachen University and Koen de Bosschere, Gent University
18:45-19:30 Keynote: Schahram Dustdar, Technical University Wien
19:30-20:00 Panel: Moderator and Topic, TBD
21:00 Gala Dinner

DAY II, June 12: TECHNOLOGIES FOR SOCIALLY RESPONSIBLE ECONOMY

08:00-09:30 Registration
09:30-10:15 Keynote: Agnis Stibe, MIT
10:15-11:00 Keynote: Howard Moskowitz, Harvard University
11:00-11:30 Break
11:30-13:30 Oral Presentations
13:30-15:30 Lunch Break
15:30-17:30 Poster Presentations
17:30-18:00 Break
18:00-18:45 Keynote: Eduard Mehofer, Wien University
18:45-19:30 Keynote: Veljko Milutinovic, IEEE Fellow, ACM Life Member
19:30-20:00 Panel: Moderator and Topic, TBD
20:00 Social life (networking)

DAY III, JUNE 13: ADVANCES IN COMPUTING

08:00-09:30 Registration
09:30-10:15 Keynote: Naim Dahnoun, University of Bristol
10:15-11:00 Keynote: Israel Koren, University of Massachusetts, Amherst
11:00-11:30 Break
11:30-13:30 Oral Presentations
13:30-15:30 Lunch Break
15:30-18:00 Free Time
18:00-19:30 Keynote and Tutorial: Onur Mutlu, Carnegie Mellon University & ETH Zurich
20:00:00 Closing Ceremony and Awards Delivery: Chair and Introduction, Ayca Tartar, ETH Zurich, Switzerland

DAY IV: June 14: Excursion (not included into fee), Team Works (Introduced by Lech Jozwiak)

ORAL AND POSTER PRESENTATIONS (141 papers)

DAY I: JUNE 11

#	PRES/TYPE	FIELD	AUTHORS	PAPER TITLE	12:00-14:00
		Section I	Chairs: Goran Devedzic, Sergey Vityazev Special Session: Recent Advances in Computational and Engineering Methods in Biomedicine and Rehabilitation (RACE-BER)		ROOM A 17 mins each
50	ORAL	RACE BER	Daniela De Venuto and Giovanni Mezzina	User-centered Ambient Assisted Living: Brain Environment Interface	
100	ORAL	RACE BER	Vanja Luković, Saša Čuković and Goran Devedžić	Optical methods for estimation and 2D classification of idiopathic scoliosis	
101	ORAL	RACE BER	Olga Melnik	Monitoring of Functional and Psycho-Emotional Status of the Person during Daily Activities	
105	ORAL	RACE BER	Suzana Petrovic Savic, Goran Devedzic, Branko Ristic, Aleksandar Matic, Nikola Prodanovic and Radovan Stojanovic	Clinical application of the portable motion capture system: A methodology	
112	ORAL	RACE BER	Andrey Trubitsyn, Evgeniy Grachev, Dmitriy Morozov, Andrey Serebryakov, Boris Polonskiy, Evgeniy Kozlov, Viktor Bochkov and Petr Panov	HIGH-POWER MICROFOCUS X-RAY INSTALLATION	
142	ORAL	RACE BER	Tatyana Vityazeva, Sergey Vityazev and Anatoly Mikheev	Synchronization of Heart Rate and Respiratory Signals for HRV Analysis	
143	ORAL	RACE BER	Emina Kurta and Živorad Kovačević, Almir Badnjević	Electromagnetic Compatibility on Medical Devices: Effects in everyday healthcare environment	
		Section II	Chairs: Tobias Pieper, Vittoriano Muttillio ECYPS Workshop		ROOM B 17 mins each
128	ORAL	ECYPS	Andrej Škraba, Andrej Koložvari, Prof. Radovan Stojanovic, Bojan Vavtar, Vladimir Stanovov, Eugene Semenkin and Davorin Kofjač	Development of Educational Cyber-Physical Internet of Things Platform - Study of the PID Controller	
2	ORAL	ECYPS	Vojtěch Miškovský, Hana Kubatova and Martin Novotny	Speeding up differential power analysis using integrated power traces	
3	ORAL	ECYPS	Tobias Pieper and Roman Obermaisser	Distributed co-simulation for software-in-the-loop testing of networked railway systems	
4	ORAL	ECYPS	Petr Socha, Jan Brejtnik and Matěj Bartík	Attacking AES Implementations Using Correlation Power Analysis on ZYBO Zynq-7000 SoC Board	
6	ORAL	ECYPS	Vittoriano Muttillio and Giacomo Valente	Injecting Hypervisor-based Software Partitions into Design Space Exploration Activities considering Mixed-Criticality Requirements	
8	ORAL	ECYPS	Luigi Pomante, Giacomo Valente, Vittoriano Muttillio and Daniele Ciambrone	HEPSIM: an ESL HW/SW Co-Simulator/Analysis Tool for Heterogeneous Parallel Embedded Systems	
42	ORAL	EMBEDDED HARDWARE	Alexander Mitov, Jordan Kralev and Ilcho Angelov	Embedded electrohydraulic controller with digital valve actuation for steering of heavy duty machines	
		Section III	Chairs: Gehad Alkady, Sinisa Djurovic		ROOM C 17 mins each
70	ORAL	EMBEDDED HARDWARE	Anna Troshina, Alexey Ivutin and Alexander Soloviev	Optimization of task distribution on multicore systems	
53	ORAL	EMBEDDED SOFTWARE	Pavel Savenkov, Alexey Ivutin and Alexandra Veselova	Neural Network for Analysis of Additional Authentication Behavioral Biometric Characteristics	
65	ORAL	EMBEDDED HARDWARE	Dina Mahmoud, Gehad Alkady, Hassanein Amer, Ramez Daoud, Ihab Adly, Youssef Essam, Hassan Ismail and Kirillos Sorour	Fault Secure FPGA-Based TMR Voter	
106	ORAL	EMBEDDED HARDWARE	Gehad Alkady, Hassanein Amer, Ramez Daoud, Tarek Refaat, Hany Elsayed and Ihab Adly	An Adaptive Multi-Factor Fault-Tolerance Selection Scheme for FPGAs in Space Applications	
133	ORAL	EMBEDDED HARDWARE	Juan I. Melecio, Anees Mohammed and Sinisa Djurovic	Towards Embedded Intelligence Enabled Autonomous Condition Monitoring Systems for AC Motor Drives	
132	ORAL	DSP	Aleksandra Tutueva, Denis Butusov, Artur Karimov and Valery Andreev	Recurrence Density Analysis of Multi-wing and Multi-scroll Chaotic Systems	
89	ORAL	DSP	Aleksei Kharin, Sergey Vityazev, Evgeniy Likhobabin and Vladimir Vityazev	LDPC Decoder Implementation on DSP+ARM Platform with OpenCL	
#	PRES	FIELD	AUTHORS	PAPER TITLE	15:30-17:30
		Section IV	Chairs: Goran Devedžić, Borislav Ivanov		ROOM B 15:30-16:20

36	POSTER	RACE BER	Milan Stork and Jaroslav Novak	Wingate Anaerobic Test New Possibility of Evaluation and Mathematical Model	
13	POSTER	CAS	Milan Stork	Simple Chaotic Oscillators with Diode Bridges	
45	POSTER	RACE BER	Anatolii Pulavskiy, Sergey Krivenko and Liudmyla Kryvenko	Diagnosing the signs of pathological states of a human based on the analysis of heart rate variability	
49	POSTER	RACE BER	Borislav Ivanov	A model of extracorporeal perfusion pump (Left heart camera operation modeling and simulation)	
59	POSTER	RACE BER	Nataliya Shakhovska, Nataliya Boyko and Tetyana Sviridova	USE OF MACHINE LEARNING IN THE FORECAST OF CLINICAL CONSEQUENCES OF CANCER DISEASES	
108	POSTER	RACE BER	Maria Ashapkina, Alexey Alpatov, Victoria A. Sablina and Alexander Chekushin	Development of quantitative parameters for assessing the correctness of performing rehabilitation exercises based on the IMU sensor	
18	POSTER	RACE BER	Ivan Martinovic and Vesna Mandic	Biomedical Signals Reconstruction Under the Compressive Sensing Approach	
20	POSTER	RACE BER	Majlinda Fetaji and Bekim Fetaji	Assessing Data Processing using Wilcoxon signed-ranks Test for Polycyclic Management System – Case Study	
99	POSTER	DSP	Anatoly Mikheev and Tatyana Vityazeva	Noise Errors in the Representation of vMeasurement Signals with Compound Discrete Samples	
7	POSTER	ECYPS	Ariant Maraj, Salem Lepaja, Iris Efendi and Sihat Berzati	The impact of the security mechanisms in the throughput of the WLAN networks	
69	POSTER	EMBEDDED HARDWARE	Maksim D. Ershov, Boris A. Alpatov and Pavel V. Babayan	Vehicle Detection and Counting System for Real-Time Traffic Surveillance	
11	POSTER	EMBEDDED SOFTWARE	Alexander S. Novikov and Anna Troshina	The Decision-making Process in Intelligent Subsystems of Embedded Systems Based on Fuzzy Approximate Reasoning	
12	POSTER	EMBEDDED SOFTWARE	Alexander S. Novikov, Alexey Ivutin, Anna Troshina and Sergey Vasiliev	Detecting the Use of Unsafe Data in Software of Embedded Systems by Means of Static Analysis Methodology	
27	POSTER	EMBEDDED SOFTWARE	Tatiana Fetisova and Sergey Skvortsov	Improving the Performance of Software Applications for Sort and Search Data by Means of GPU/s	
43	POSTER	EMBEDDED SOFTWARE	Natalia Kopylova, Oleg Bodrov, Aleksandr Taganov and Aleksandr Kolesenkov	The Analysis of Ecological Risks in Geoinformational Systems in Fuzzy Conditions	
56	POSTER	EMBEDDED SOFTWARE	Nataliya Petrova, Liliya Demidova and Victoria Sablina	Aspects of Solution of the Problem of the Shooting Parameters Optimization Using Modifications of the Evolutionary Algorithm	
Section V					Chairs: Betim Cico, Elena Medvedeva
					ROOM B 16:40-17:30
63	POSTER	EMBEDDED HARDWARE	Alexander Ermachikhin, Vladimir Litvinov, Nikolay Rybin, Eugene Trusov, Natalia Rybina and Dmitriy Kusakin	Measurement complex of photoluminescence using LabVIEW	
71	POSTER	EMBEDDED SOFTWARE	Aleksey Gromov, Tatiana Petrovskaia, Anastasia Suslina, Maxim Stepanov and Natalia Khizriyeva	Human Resources Intelligent Selection Algorithm with Improvement of Data Validity	
76	POSTER	EMBEDDED SOFTWARE	Marina Bakuleva and Aleksandr Bakulev	The algorithm of mining association rules based on the derivative of the graph model of the datasets	
78	POSTER	EMBEDDED SOFTWARE	Denis Parfenov and Irina Bolodurina	Development and research of the autonomous system for providing security and quality of service for multi cloud platform	
81	POSTER	EMBEDDED SOFTWARE	Maksim Egin and Liliya Demidova	Improving the Accuracy of the SVM Classification using the Parzen classifier	
82	POSTER	EMBEDDED SOFTWARE	Eugene Larkin, Aleksandr Privalov and Maksim Antonov	Embedded parallel operation programmer modeling	
93	POSTER	EMBEDDED SOFTWARE	Boris Kostrov and Robert Khrunichev	Application of probabilistic approach while forming hash-function by signature in the process of domain-specific local database analysis	
103	POSTER	EMBEDDED SOFTWARE	Anastasiya Svirina, Aleksey Baranchikov, Natalya Grinchenko and Nikolai Sumenkov	A technique of increasing the efficiency of websites' ranking based on the spectral coefficient of the texts' readability.	
110	POSTER	EMBEDDED SOFTWARE	Nikita Baranov, Mikhail Bashkin and Vladimir Bashkin	A Lightweight Cryptographic Scheme of Route Hiding for the On-Demand Route Discovery Algorithms	
114	POSTER	EMBEDDED SOFTWARE	Marija Seckic, Snezana Scepanovic, Milica Gazivoda and Jelena Nikolic	Application of DevOps approach in developing Business intelligence system in bank	
134	POSTER	EMBEDDED SOFTWARE	Edona Doko and Lejla Abazi-Bexheti	A Systematic mapping study of educational technologies based on Educational Data Mining and Learning analytics	
96	POSTER	DSP	Tsiporkova Ksenia, Dubovikov Andrey, Tsiporkov Nikita and Revkova Larisa	Method of Orthogonal Expansions in the Case of Measuring the Multiplication of Two Random Signals	
23	POSTER	MEASUREMENTS	Aleksey Abramov, Sergey Gurzhin, Vladimir Julev, Evgeniy Proshin, Gardon Sadovskij and Andrey Shulyakov	Automation of Methods for Determining Dynamic Characteristics of Digital Measuring Facilities	
66	POSTER	DSP	Irina Klyueva and Liliya Demidova	Data Classification Based on the Hybrid Versions of the Particle Swarm Optimization Algorithm	
29	POSTER	EMBEDDED HARDWARE	Tatiana Fetisova and Sergey Skvortsov	Scheduling Multithreaded Processes by Criterion of Minimum of Number Data Exchanges Between Processor Cores	
54	POSTER	EMBEDDED HARDWARE	Elena Medvedeva, Konstantin Karlushin and Ekaterina Kurbatova	Motion detection algorithm implemented on the ARM-based hardware	

DAY II: JUNE 12

#	PRES	FIELD	AUTHORS	PAPER TITLE	11:30-13:30
Section VI					Chairs: Lech Jozwiak W. Mansoor
					ROOM A 17mins each
5	ORAL	ECYPS	Maurizio Palesi, Salvatore Montealeone, Davide Patti, Giuseppe Ascia, Vincenzo Catania and John Jose	Improving Energy Consumption of NoC based Architectures through Approximate Communication	
9	ORAL	ECYPS	Simon Meckel and Roman Obermaier	Component-based Combination of Online-Diagnosis Methods Using Diagnostic Directed Acyclic Graphs	
10	ORAL	ECYPS	H. Mukhtar, W. Mansoor, H. Al-Ahmed and A. Al-Dweik	Reliability and Latency Trade-off in Time Domain Interleaving for OFDM Communication Systems	
11	ORAL	ECYPS	Gordana Lastovicka-Medin	Coupling bits and atoms: an attempt to bridge the gap between cyberspace and the physical environment by making digital information tangible	
10	ORAL	EMBEDDED HARDWARE	Fabian Mauroner and Marcel Baunach	mosartMCU: Multi-Core Operating-System-Aware Real-Time Microcontroller	
21	ORAL	EMBEDDED HARDWARE	Gabriel Campeanu	A Mapping Study on Microservice Architectures of Internet of Things and Cloud Computing Solutions	
131	ORAL	RELATED FIELDS	Gordana Lastovicka-Medin	Harvesting & Regenerating Energy from Multiple Low-Cost Energy Generators for Low Energy Consumers and Towards Circular Economy	
Section VII					Chairs: Johannes Obermaier, Milan Prokin
					ROOM B 17 mins each
39	ORAL	EMBEDDED HARDWARE	Habib Chawki Touati and Fateh Boutekouk	FACARS: A Novel Fully Adaptive Congestion Aware Routing Scheme for Network on Chip	
32	ORAL	EMBEDDED SOFTWARE	Valeriia Tishkina, Aleksandr Pylkin, Aleksandr Kroshilin and Svetlana Kroshilina	Designing a System for Analyzing the Activities of Enterprises Using Artificial Intelligence Methods	
38	ORAL	EMBEDDED SOFTWARE	Johannes Obermaier, Florian Hauschild, Matthias Hiller and Georg Sigl	An Embedded Key Management System for PUF-based Security Enclosures	
51	ORAL	EMBEDDED SOFTWARE	Milan Prokin, Dragana Prokin, Aleksandar Nešković and Nataša Nešković	Cybersecurity of fiscal devices with GPRS terminals	
52	ORAL	EMBEDDED SOFTWARE	Milan Prokin, Dragana Prokin, Aleksandar Nešković and Nataša Nešković	Cybersecurity of improved fiscal devices	
88	ORAL	EMBEDDED SOFTWARE	Bogdan Cristian Florea	Blockchain and Internet of Things Data Provider for Smart Applications	
122	ORAL	EMBEDDED SOFTWARE	Dhurate Hyseni, Betim Cico, Artan Luma, Besnik Selimi and Edona Shemsedini	Different Methods of Distribution Data in the Cloud - Controlled by IT Security Specialist	
Section VIII					Chairs: Ondrej Cip, Emil Zaev
					ROOM C 17 mins each
115	ORAL	EMBEDDED SOFTWARE	Marina Bakuleva, Aleksandr Bakulev and Mikhail Golovanov	Using Apache Spark to Collect Analytic from the Streaming Data Processing Application Logs	
117	ORAL	EMBEDDED SOFTWARE	Dmitry Yudin and Dmitry Slavioglo	Usage of Fully Convolutional Network with Clustering for Traffic Light Detection	
120	ORAL	EMBEDDED SOFTWARE	Emil Zaev, Darko Babunski, Atanasko Tuneski and Gerhard Rath	Simulation of Stiff Systems on Real-Time Hardware	
124	ORAL	EMBEDDED SOFTWARE	Raimund Ubar, Lembit Jürimägi, Niyi-Leigh Olugbenga and Vladimir Viies	Timing-Critical Path Analysis with Structurally Synthesized BDDs	
135	ORAL	MEASUREMENT	Ondrej Cip, Lenka Pravdova, Radek Helan and Jan Hrabina	Control of repetition frequency of a femtosecond laser by an external cavity working as the length sensor	
75	ORAL	MEASUREMENTS	Yury Bekhtin, Alexey Lupachev, Andrey Bryantsev and Sergey Smirnov	Estimating Parameters of Point Sources in Onboard IR-sensors using Statistically Linearized Model	
98	ORAL	MEASUREMENTS	Meghan Evans, Rui Fan and Naim Dahnoun	Iterative Roll Angle Estimation from Dense Disparity	
#	PRES	FIELD	AUTHORS	PAPER TITLE	15:30-17:30
Section IX					Chairs: Michael Winokur, Betim Cico
					ROOM B 15:30-16:20
48	POSTER	COMM	Sergey Kirillov, Dmitriy Lukyanov and Ivan Kostkin	Algorithms for human emotional state estimation and speech quality improvement under the conditions of acoustic disturbance in telecommunication systems	
2	POSTER	DSP	Milos Brajovic, Ljubisa Stankovic, Miloš Daković and Damilo Mandić	Additive Noise Influence on the Bivariate Two-Component Signal Decomposition	
14	POSTER	DSP	Alexander Zemliachenko, Vladimir Lukin, Igor Djurović and Benoit Voze	On Potential to Improve DCT-Based Denoising with Local Threshold	
15	POSTER	DSP	Viktor Fatuev and Anton Mishin	Control of the experiment with optimum identification of dynamic systems in real time	
26	POSTER	DSP	Alexander Savin, Svetlana Elesina and Michael Nikiforov	The Graphical Processor Application for Image Correlation Combination	
28	POSTER	DSP	Dmitry Fetisov and Aleksandr Kolesenkov	Development and Implementation of the Technology of Automatic Reconciliation of Different Aerospace Images	
104	POSTER	DSP	Vladimir Andrejev and Denis Avramenko	Spectral Analysis of Light Reflections from Cosmic Objects by the Modified Prony's Method	

119	POSTER	DSP	Anastasia Sochenkova, Natalia Podzharaya, Pavel Trofimov and Galina Novikova	Design and Implementation of Information Retrieval Mechanism for the Virtual Museum Creation	
123	POSTER	DSP	Sergey Chelebaev, Yulia Chelebaeva and Olga Melnik	Application of simulation modeling for the analysis of neurons of converters of time-and-frequency parameters of signals in a digital code	
126	POSTER	DSP	Mikhail Kagalenko	Modified Pisarenko Spectrum for Frequency Analysis	
145	POSTER	DSP	Alexander Bastrychkin, Dmitry Borisov, Natalia Khizrieva, Boris A. Kostrov, Tatyana Petrovskaya and Anastasiya Suslina	Interference immunity of image transmission channel	
73	POSTER	ECYPS	Michael Winokur, Alon Modai and Zvi Lando	Seamless Requirements Flow Down from System to Software Components in a Cyber Physical System	
1	POSTER	EMBEDDED HARDWARE	Matěj Bartík	Clock Domain Crossing – An Advanced Course for Future Digital Design Engineers	
24	POSTER	RELATED FIELDS	Aleksei Maslov, Vladislav Mishustin, Alexander Piryugin and Nikolay Vishnyakov	Physical model to calculate current-voltage characteristics of double-junction solar cells based on a Si:H and a-SiC:H	
31	POSTER	RELATED FIELDS	Nerođa Selmi, Marika Apostolova Trpkovska, Lejla Abazi Bexheti, Majlinda Fetaji and Betim Cico	Utilization of Customer Relationship Management (CRM) theory, prototype and tools for improved strategic marketing in HE	
34	POSTER	RELATED FIELDS	Vladimir Salnikov	Support the efficient use of energy in manufacturing	
		Section X	Chairs: Adis Balota, Nevena Brnovic		ROOM B 16:40-17:30
40	POSTER	RELATED FIELDS	Adis Balota, Sreten Škuletić and Selma Grebović	Mathematical model for calculation of complex (production/transmission) electric power system reliability	
41	POSTER	RELATED FIELDS	Yevgeniy Muratov, Dmitry Ustukov and Sergey Orlov	Detection of Laser Illumination Points of a Stereo System on a Complex Background	
47	POSTER	RELATED FIELDS	Alexey Alpatov, Natalia Rybina, Dmitry Trynov and Sergey Vikhrov	Scale-space theory application to investigate surface correlation properties	
77	POSTER	RELATED FIELDS	Aleksei Maslov, Alexander Ermachikhin, Ekaterina Bezuglaya, Vladislav Mishustin, Yuriy Vorobyov and Valery Gudzev	Spatial localization of dominating deep centers in multicrystalline silicon solar cells	
90	POSTER	RELATED FIELDS	Andrey Semenov, Vladimir Litvinov, Tatiana Kholomina, Alexander Ermachikhin, Natalia Rybina, Dmitriy Gromov and Sergey Oleinik	Investigating and modeling high frequency C-V characteristics of zinc oxide-based heterostructures	
130	POSTER	RELATED FIELDS	Ilir Keka and Betim Cico	Pattern detection of Load Profiles based on regression model with multiple variables	
3	POSTER	CAS	Eugenie Mamontov, Michael Sudakov, Alexander Ulitenko, Alexander Dyagilev, Olga Melnik and Galina Melnik	Modeling of free and forced oscillations of the inertial nonstationary harmonic oscillator	
137	POSTER	RELATED FIELDS	Nuhi Besimi, Betim Cico and Adrian Besimi	Hybrid Solution for Scalable Research Articles Recommendation	
138	POSTER	RELATED FIELDS	Merita Kasa Halili and Betim Čiço	Towards Custom Tailored SLA in IaaS environment through negotiation model An Overview	
140	POSTER	RELATED FIELDS	Alma Jakupović, Živorad Kovacevic and Almir Badnjevic	Review of Expert Systems Application in Nanotechnology	
86	POSTER	DSP	Nevena R. Brnović, Igor Djurović, Veselin Ivanović and Marko Simeunović	System for QML Algorithm Realization	
139	POSTER	RCiF	Veselin N. Ivanović and Nevena R. Brnović	Appropriate Registers' Lengths in the Fully Pipelined Design of an Optimal Space/Spatial Frequency Filter for Highly Nonstationary Two-Dimensional FM Signals Estimation	
58	POSTER	DSP	Tamara Koljenšić and Časlav Labudović	Comparison of threshold-based algorithms for sparse signal recovery	
55	POSTER	DSP	Elena Medvedeva and Ekaterina Kurbatova	A Method for Texture Segmentation of the Multidimensional Images	
94	POSTER	DSP	Vladimir Belokurov	Implementation of Affine Transform for Image Rotation Using a HLS Language	
37	POSTER	DSP	Valentina Komatar and Maja Vešović	The Hermite and Fourier transforms in sparse reconstruction of sinusoidal signals	
79	POSTER	DSP	Sergey Smirnov, Valery Strotov, Pavel Babayan, Vadim Muraviev and Maksim Ershov	Object tracking algorithm based on the multispectral template matching	
		Section XI	Chairs: Igors Lemberskis, Anatoly Novikov		ROOM A 15:30-16:20
127	POSTER	CAS	Igors Lemberskis and Artjoms Suponenkovs	Asynchronous Logic Design Targeting LUTs	
19	POSTER	COMM	Valery Zolotarev, Natalya Grichenko, Alexander Lotsmanov and Gennady Ovechkin	Developing the Principle of Divergent Coding for Gaussian Channels	
25	POSTER	COMM	Dmitriy Prozorov and Igor Trubin	Detection of a signal in the SIMO system with spatial correlation of noise	
46	POSTER	COMM	Sergey Kirillov, Alexander Lisnichuk and Pavel Pokrovskij	Multi-criterion radio signal synthesis and time discriminator development for prospective communication systems	
33	POSTER	DSP	Aleksey Efimov, Dmitry Kolchaev, Anatoly I. Novikov and Michael B. Nikiforov	Algorithm of Geometrical Transformation and Merging of Radar and Video Images for Technical Vision Systems	
35	POSTER	DSP	Anatoly Novikov, Alexander Loginov and Dmitry Kolchaev	Method of Superimposition of Heterogeneous Images Based on Combining Search and Tracking Modes	
62	POSTER	DSP	Alexandra Akinina and Michael Nikiforov	Multiscale image segmentation using normalized cuts in image recognition on satellite images	
64	POSTER	DSP	Victoria Sablina, Maria Ashapkina, Yuriy Konkin and Aleksandr Kolesnikov	Preliminary data Processing by Means of Onboard Computer Systems of Spacecraft	
67	POSTER	DSP	Valentina Potapova, Andrey Tarasov, Sergey Babaev and Maxim Stepanov	Short-term forecasting algorithms in systems of meteorological data collection and processing	
72	POSTER	DSP	Ivan Kanatov, Vyacheslav Gul'vansky and Dmitriy Kaplun	Method of Decrease of Discrete Fourier Transform Sidelobes without Window Functions	
		Section XII	Chairs: Mustafa Engin, Tomas Bagala		ROOM A 16:40-17:30
1	POSTER	ECYPS	Mustafa Engin	Embedded LQR Controller Design for Self-Balancing Robot	
61	POSTER	EMBEDDED SOFTWARE	Mirko Sajic, Dusanka Bundalo, Zlatko Bundalo, Luka Sajic and Goran Kuzmic	Programmable Electronic Payment Card Transaction Limit Implemented Using Mobile Electronic Technologies	
60	POSTER	EMBEDDED HARDWARE	Mirko Sajic, Dusanka Bundalo, Zlatko Bundalo, Radovan Stojanovic and Luka Sajic	Design of Digital Modular Bank Safety Deposit Box Using Modern Information and Communication Technologies	
141	POSTER	EMBEDDED HARDWARE	Tomas Bagala, Adam Fibich, Miroslav Hagara, Peter Kubinec, Oldrich Ondracek, Vladimir Stofanik and Radovan Stojanovic	Single Clock Square Root Algorithm Base on Binomial Series and its FPGA Implementation	
125	ORAL	MEASUREMENTS	Yury Bekhtin, Alexey Lupachev, Andrey Serov and Andrey Kovalenko	ANALYSIS OF INTERVAL CRITERIA FOR DETERMINING THE END OF THE TRANSIENT PROCESS IN THE MEASURING CIRCUIT	48
		Section XIII	Works in Progress, Companies, Projects Chair: Aphrodite Ktena		ROOM C 15:30-16:20
		ORAL (WIP1)	Gennady V. Svetlov, Aleksey I. Baranchikov, Natalya N. Grichenko, Nataliy S. Fokina	Using a tableau method for checking the database logical structure correctness	
		ORAL (WIP2)	Sergey Gurzhin, Vladimir Zhulev, Michail Kaplan, Vladimir Kryakov, Evgeniy Proshin and Andrey Shulyakov	Virtual Tools for Fast Registration, Processing and Presentation of Biomedical Signals in "Multimag" Complex	
		ORAL (WIP3)	Tarasov Andrey and Potapova Valentina	Double Interpolation in GIS Tasks	
		Project 1	ELEMEND		
		Project 2	TETRAMAX		
		Company	Cikom		
		Company	MECOnet		
		Company	Elkon		
			Reserve/open slot		ROOM C 16:40-17:30
		ORAL FREE SLOT		Could be used for presentation of initiatives, ideas, etc. Contact publication chair for defining a term	
		ORAL FREE SLOT			
		ORAL FREE SLOT			
DAY III: JUNE 13					
#	PRES	FIELD	AUTHORS	PAPER TITLE	11:30-13:30 ROOM A 17mins each
		Section XIV	Chairs: Sergey Mosin, Zilbert Tafa		
74	ORAL	CAS	Sergey Mosin	Entropy-Based Method of Reducing the Training Set Dimension at Constructing a Neuromorphic Fault Dictionary for Analog and Mixed-Signal ICs	
87	ORAL	CAS	Ekin Arabul, John Rarity and Naim Dahnoun	FPGA based Fast Integrated Real-Time Multi Coincidence Counter Using a Time-to-Digital Converter	
44	ORAL	COMM	Zhilbert Tafa, Fatlum Ramadani and Blerona Cakolli	The Design of a ZigBee-Based Greenhouse Monitoring System	
57	ORAL	CONTROL	Marko Bošković, Milan Rapaic, Tomislav Šekara, Petar Mandić, Mihailo Lazarević, Boško Cvetković, Budimir Lutovac and Miloš Daković	On the Rational Representation of Fractional Order Lead Compensator using Padé Approximation	
121	ORAL	CONTROL	Darko Babunski, Emil Zaev, Atanasko Tuneski and Dejan Bozovic	Optimization Methods for Water Supply SCADA System	
4	ORAL	DSP	Vyacheslav Oliinyk, Vladimir Lukin and Igor Djurović	Time Delay Estimation for Noise-Like Signals Embedded in Non-Gaussian Noise Using Adaptive Robust DFT	
16	ORAL	DSP	Anna D. Sergeeva and Victoria A. Sablina	Using Structure from Motion for Monument 3D Reconstruction from Images with Heterogeneous Background	
		Section XV	Chair: Dražen Jurišić Special Sesion: Recent Challenges in Filter Theory Design and Applications (RCiF)		ROOM B 17 mins each
		Invited Lecture	Dražen Jurišić	Fractional analog and mixed systems for signal processing	
95	ORAL	RCiF	Boris Kostrov, Aleksey Baranchikov, Gennady Svetlov and Nataliy Fokina	Fast image convolution calculation method with an ideal low-pass filter	

97	ORAL	RCiF	Vladislav Lesnikov, Tatiana Naumovich and Alexander Chastikov	Number-Theoretical Analysis of the Structures of Classical IIR Digital Filters	
109	ORAL	RCiF	Isidora Stankovic, Igor Djurovic and Miloš Daković	Adaptive average BM3D filter for reconstruction of images with combined noise	
129	ORAL	RCiF	Vladislav Lesnikov, Tatiana Naumovich and Alexander Chastikov	The Sampling of the z-Plane Due to the Quantization of the Digital Filter	
68	ORAL	DSP	Isidora Stankovic, Cornelia Ioana and Miloš Daković	Sparse Signal Reconstruction in Dual Polynomial Fourier Transform	
144	ORAL	RCiF	Dražen Jurišić, Edi Emanovic, Budimir Lutovac and George S. Moschytz	Noise Analysis of Fractional-Order Two-Integrator CCH Low-Pass Filter using Pspice	
Section XVI			Chairs: Yuri Bekhtin and Gerhard Rath		ROOM C 17mins each
85	ORAL	DSP	Alexander Bastrychkin, Aleksey Gromov, Denis Stepaov and Elena Koroleva	Image compression in quasi-two-dimensional spectrum with quantizing of high-frequency component	
92	ORAL	DSP	Sergey Zavalishin and Yuri Bekhtin	Visually Aesthetic Image Contrast Enhancement	
113	ORAL	DSP	Scott Tancock, Shahid Mahmood, Ekin Arabul and Naim Dahnoun	CAN DSP48A1 ADDERS BE USED FOR HIGH-RESOLUTION DELAY GENERATION?	
107	ORAL	RELATED FIELDS	Matthew Harker and Gerhard Rath	Global Least Squares for Time-Domain System Identification of State-Space Models	
146	ORAL	DSP	Maja Lakičević Zarić, Anđela Draganić, Irena Orović and Srdjan Stanković	Sparse signal reconstruction using gradient-threshold based method	
102	ORAL	EMBEDDED SOFTWARE	Vladimir Ruchkin, Vladimir Fulin, Boris Kostrov and Pikulin Dmitri	ANALYSIS OF MODELS OF REPRESENTATION OF EXPERT SYSTEM OF CHOICE OF STRUCTURE OF NEUROPROCESSOR SYSTEM	

DAY IV: June 14:

Excursion (not included into fee)

Team Works (Introduced by Lech Jozwiak)



KEYNOTES CHAIRS: DAY I (morning)- V. Milutinovic, DAY I(afternoon)- V. L. Jozwiak; DAY II (morning): V. Milutinovic, L. Jozwiak, DAY II(afternoon): V. Milutinovic, B. Cico; DAY III (morning)-V.Milutinovic, D. Tarasov, DAYIII (afternoon): V. Milutinovic, L. Jozwiak

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EXCURSION: Will be offered by partner agencies at MECO desk and MECO web site (not included into regi. fee)

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