

IWSSIP 2014 PROGRAM

Monday, May 12	Tuesday, May 13	Wednesday, May 14
08:30 - 09:30 Registration	09:00 - 09:30 Registration	09:00 - 09:30 Registration
09:30 - 10:00 OPENING SESSION: Welcome Speeches	09:30 - 11:00 Session 3 & 4	09:30 - 11:00 Session 11 & 12
10:00 - 11:30 PLENARY SESSION: Keynote Talks	11:00 - 11:30 Coffee break	11:00 - 11:30 Coffee break
11:30 - 12:00 Sony Professional Solutions Europe Talk	11:30 - 12:30 Session 5 & 6	11:30 - 12:30 Session 13 & 14
12:00 - 12:30 Welcome cocktail	12:30 - 14:00 Lunch break	12:30 - 14:00 Lunch break
12:30 - 14:00 Lunch break	14:30 - 16:00 Session 7 & 8	15:00 - 18:30 Sightseeing
14:30 - 16:00 Session 1 & 2	16:00 - 16:30 Coffee break	
20:00 Conference Dinner	16:30 - 18:00 Session 9 & 10	

Monday, 12 May 2014

08:30 - 09:30	Registration	
HALL A		
09:30 - 10:00	OPENING SESSION: Welcome Speeches	
10:00 - 11:30	PLENARY SESSION: Keynote Talks	
11:30 - 12:00	Sony Professional Solutions Europe Talk	
12:00 - 12:30	Welcome cocktail sponsored by Sony Europe	
12:30 - 14:00	Lunch break	
	HALL A	HALL B
	14:30 - 16:00 SESSION 1: Image and video processing 1	14:30 - 16:00 SESSION 2: Medical image analysis
20:00	Conference dinner	

Tuesday, 13 May 2014

09:00 - 09:30		Registration	
HALL A		HALL B	
09:30 - 11:00 SESSION 3: Image and Video Processing 2		09:30 - 11:00 SESSION 4: Multimedia	
11:00 - 11:30		Coffee break	
11:30 - 12:30 SESSION 5: Image and video processing 3		11:30 - 12:30 SESSION 6: Networks	
12:30 - 14:00		Lunch break	
14:30 - 16:00 SESSION 7: Signal processing 1		14:30 - 16:00 SESSION 8: Security	
16:00 - 16:30		Coffee break	
16:30 - 18:00 SESSION 9: Signal Processing 2		16:30 - 18:00 SESSION 10: Wireless 1	

Wednesday, 14 May 2014

09:00 - 09:30		Registration	
HALL A		HALL B	
09:30 - 11:00 SESSION 11: Image and video processing 4		09:30 - 11:00 SESSION 12: Wireless 2	
11:00 - 11:30		Coffee break	
11:30 - 12:30 SESSION 13: Signal Processing 3		11:30 - 12:30 SESSION 14: Image and video processing 5	
12:30 - 14:00		Lunch break	
15:00 - 18:30		Sightseeing	
Meeting Point: Lacroma Hotel, main entrance			

Monday, 12 May 2014

HALL A

09:30 - 10:00

OPENING SESSION: Welcome Speeches

Session Chair: **Branka Zovko-Cihlar, Mislav Grgić, and Mario Muštra**

10:00 - 11:30

PLENARY SESSION: Keynote Talks

Session Chair: **Branka Zovko-Cihlar**

Prof. Tulay Adali, Department of Computer Science and Electrical Engineering, University of Maryland Baltimore County; UNITED STATES OF AMERICA

ICA and IVA: Theory, Connections, and Applications to Medical Imaging

Prof. Aleksandar Louis Todorovic, University of the Arts, Mediterranean University; SERBIA/MONTENEGRO

The Boundless Spaces of Expanded Multimedia

Prof. Joachim Weickert, Saarland University, Saarbruecken; GERMANY

Image Compression with Diffusion

11:30 - 12:00

Sony Professional Solutions Europe Talk

Colin Thompson, European Marketing and Product Manager, Archiving Solutions, Sony Professional Solutions Europe

Optical Disc System Advantages for Long Term Archiving of Multi-media Content

12:00 - 12:30

Welcome cocktail (organized by Sony)

12:30 - 14:00

Lunch Break

14:30 - 16:00

SESSION: Image and video processing 1

Session Chair: **Aura Conci and Sonja Grgić**

Kubra Cengiz, Mustafa Kamasak

Comparison of Algebraic Reconstruction Techniques for Tomosynthesis

Flávio F. Feliciano, Fernando B. Mainier, Fabiana R. Leta

Possible Use of Texture Parameters to Corrosion Evolution Analysis

Ilhan Aydın, Mehmet Karakose, Erhan Akun

Monitoring of Pantograph-Catenary Interaction by using Particle Swarm Based Contact Wire Tracking

Frank Schumacher, Thomas Greiner

Two stage Real-Time Stereo Correspondence Algorithm and FPGA Architecture using a Modified Generalized Hough Transform

Dušan Gleich

SAR patch scene categorization

HALL B

14:30 - 16:00

SESSION: Medical image analysis

Session Chair: **Angel Sánchez and Mario Muštra**

Alena Uus, Panos Liatsis, Ronak Rajani, Lidija Mandic

The Impact of Boundary Conditions in Patient-Specific Coronary Blood Flow Simulation

É. O. Rodrigues, A. Conci, T. B. Borchardt, A. C. Paiva, A. Correa Silva, T. MacHenry

Comparing Results of Thermographic Images Based Diagnosis for Breast Diseases

A. Sánchez, J.F. Vélez, A.B. Moreno, E. Nunes

Effectively Integrating a Course on Biometrics in a Computer Vision Master's Degree

Michal Kvet, Karol Matiaško

Application for Brain Tumour Imaging

Mario Muštra, Mislav Grgic

Detection of Areas Containing Microcalcifications in Digital Mammograms

Tuesday, 13 May 2014

HALL A

9:30 - 11:00

SESSION: Image and video processing 2

Session Chair: **Panos Liatsis and Fernando Garcia**

Krzysztof Wegner, Olgierd Stankiewicz, Marek Domański

Fast View Synthesis using Platelet-based Depth Representation

Ayman Rabee, Imad Barhumi

License Plate Detection and Recognition in Complex Scenes Using Mathematical Morphology and Support Vector Machines

Fernando Garcia, Aurelio Ponz, David Martin, Arturo de la Escalera, José María Armingol

Computer Vision and Laser Scanner Road Environment Perception

Zohir Irki, Abdelatif Oussar, Mohamed Hamdi, Fatah Seddi

A Fuzzy UV-disparity Based Approach for Obstacles Avoidance

Intaek Kim, Tayyab Wahab Awan, Youngsung Soh

Background Subtraction-Based Multiple Object Tracking Using Particle Filter

Nemra Abdelkrim, Kecir Issam, Khrouf Lyes, Chaib Khaoula

Fuzzy Logic Controllers for Mobile Robot Navigation in Unknown Environment using Kinect Sensor

11:00 - 11:30

Coffee break

11:30 - 12:30

SESSION: Image and video processing 3

Session Chair: **Gregor Rozinaj and Ivan Minárik**

Muhammad Imran Ahmad, Mohd Zaizu Ilyas, Ruzelita Ngadiran, Mohd Nazrin Md Isa, Shahrul Nizam Yaakob

Palmpoint Recognition Using Local and Global Features

Marek Vančo, Ivan Minárik, Gregor Rozinaj

Evaluation of Static Hand Gesture Algorithms

Michal Kawulok, Jakub Nalepa

Hand Pose Estimation using Support Vector Machines with Evolutionary Training

12:30 - 14:00

Lunch break

14:30 - 16:00

SESSION: Signal processing 1

Session Chair: **Gregor Rozinaj and Tomasz Maka**

Julien Osmalskyj, Marc Van Droogenbroeck, Jean-Jacques Embrechts

Performances of Low-level Audio Classifiers for Large-scale Music Similarity

Danilo Souza, Levi Saturnino, Alexandre M. A. Maciel

A Portability Evaluation of Brazilian Portuguese Voices Produced with MARY TTS

Alex Frid, Yizhar Lavner

Spectral and Textural Features for Automatic Classification of Fricatives Using SVM

Thomas Schmitz, Jean Jacques Embrechts

Improvement in Non-linear Guitar Loudspeaker Sound Reproduction

Matevž Pesek, Aleš Leonardis, Matija Marolt

Boosting Audio Chord Estimation using Multiple Classifiers

Tomasz Maka, Piotr Dziurzanski

Feature Contours Fusion for Determining Segment Boundaries in Audio Data

16:00 - 16:30

Coffee break

16:30 - 18:00

SESSION: Signal processing 2

Session Chair: **Ján Turán and Mesud Hadžialić**

Maarten Jansen

Nonseparable Laplacian Pyramids with Multiscale Local Polynomials for Scattered Data

Hamed Fatemi, Ghassem Jaberipur

Double $\{0, 1, 2\}$ Representation Modulo- $(2^n - 3)$ Adders

Jiaying Du, Christer Gerdman, Maria Lindén

Signal Processing Algorithms for Temperature Drift in a MEMS-gyro-based Head Mouse

Ján Turán, Ľuboš Ovseník

Application of Web Controlled Fibre Optic Refractometer

Oussar Abdelatif, Bouaziz Samir, Sakhi Samir

Design and Implementation of a Navigation System Based On Sensors Fusion

Akram Shokri, Mohammad Hossein Davarpour, Ahmad Akbari

Improving Keyword Detection Rate Using a Set of Rules to Merge HMM-based and SVM-based Keyword Spotting Results

Piotr Dziuranski, Tomasz Maka

Network on Chips Link Bandwidth Minimization of Deadlock-free Multi-Path Routing

HALL B

09:30 - 11:00

SESSION: Multimedia

Session Chair: **Narcis Behlilović and Fabiana R. Leta**

Ognjen Joldzic, Zoran Djuric

Video Streaming Protocol Extension for Session Control and Authorization

Namir Škaljo, Alen Begović, Narcis Behlilović, Mesud Hadžialić

An Efficient Troubleshooting Testing Scenario for IPTV over DSL:
Preliminary Discussion

Shymaa EL-Leithy

Self-Organizing Maps based 3D Normal Mesh Compression

In-Cheol Kim, Joo-Hee Kim, Seok-Jun Lee

MobileSense: A Robust Sound Classification System for Mobile
Applications

Sebastian Baumgartner, Gangolf Hirtz

Narrowband Interference Mitigation for SDR based DAB/DAB+ Receivers

11:00 - 11:30

Coffee break

11:30 - 12:30

SESSION: Networks

Session Chair: **Pavol Podhradský and Juraj Blichár**

Radovan Kadlic, Juraj Blichár, Pavol Podhradský

New Trends in Content Delivery Networks

Markus Laner, Philipp Svoboda, Markus Rupp

Detecting M2M Traffic in Mobile Cellular Networks

Lothar Thieling, Andre Schüer, Georg Hartung, Gregor Büchel

Embedded Image Processing System for Cloud-based Applications

12:30 - 14:00

Lunch break

14:30 - 16:00

SESSION: Security

Session Chair: **Dijana Tralić and Sonja Grgić**

Dijana Tralic, Paul L. Rosin, Xianfang Sun, Sonja Grgic

Detection of Duplicated Image Regions using Cellular Automata

Seniha Ketenci, Guzin Ulutas, Mustafa Ulutas

Detection of Duplicated Regions in Images Using 1D-Fourier Transform

Laura Vegh, Liviu Miclea

A New Approach Towards Increased Security in Cyber-Physical Systems

Steven Dearstyne, Daryl Johnson

Leveraging Public Posts and Comments as Covert Channels

16:00 - 16:30

Coffee break

16:30 - 18:00

SESSION: Wireless 1

Session Chair: **Miran Gosta and Ana Katalinić Mucalo**

Pınar Kirci, Hakima Chaouchi, Anis Laouiti

Cluster-Based Protocol Structures in WSNs

Wojciech M. Kempa

On Queueing Delay in WSN with Energy Saving Mechanism Based on Queued Wake Up

Dominique Lemur, Yvon Erhel, Martial Oger, Jérôme Le Masson

MIMO Channel Measurements on a Ionospheric HF (3-30 MHz) Radio Link

Marko Malajner, Dušan Gleich

Study of Link Quality Indicator for Possible usage in Angle of Arrival Estimation

P. Trakadas, T. Zahariadis, S. Voliotis, P. Karkazis, T. H. Velivassaki, L. Sarakis

Routing Metric Selection and Design for Multi-Purpose WSN

Nisrine Ghadban, Paul Honeine, Farah Mourad-Chehade, Clovis Francis, Joumana Farah

Mobility using First and Second Derivatives for Kernel-based Regression in Wireless Sensor Networks

Wednesday, 14 May 2014

HALL A

09:30 - 11:00

SESSION: Image and video processing 4

Session Chair: **Markus Rupp and Kresimir Sakic**

Krzysztof Klimaszewski, Krzysztof Wegner, Marek Domański
Video and Depth Bitrate Allocation in Multiview Compression

Tomasz Grajek, Jakub Stankowski, Krzysztof Wegner, Marek Domański
Video Quality in AVC Homogenous Transcoding

Terence Zarb, Carl James Debono
Depth-Based Image Processing for 3D Video Rendering Applications

Yanxiang Wang, Charith Abhayaratne, Rajitha Weerakkody, Marta Mrak
Colour Space Transforms for Improved Video Compression

Krešimir Šakić, Emil Dumić, Sonja Grgić
Crowdsourced Subjective Video Quality Assessment

11:00 - 11:30

Coffee break

11:30 - 12:30

SESSION: Signal processing 3

Session Chair: **Mario Muštra and Ciril Bohak**

Howard Cheng, Camara Lerner
Rate-Distortion Approach to Bit Allocation in Lossy Image Set Compression

Viet Anh Nguyen, Khanh Quoc Dinh, Chien Van Trinh, Byeungwoo Jeon
HVS based Iterative Hard Thresholding Recovery for Compressive Sensed Image

Duaa H. AlSaeed, Ahmed Bouridane, Ali ElZaart

A New Image Segmentation Method Based On 3-Dimensional Entropic Thresholding Using a 3-Dimensional (GLLALE) Histogram

Čiril Bohak, Anže Sodja, Matija Marolt, Uroš Mitrović, Franjo Pernuš

Fast Segmentation, Conversion and Rendering of Volumetric Data using GPU

12:30 - 14:00

Lunch break

Wednesday, 14 May 2014

HALL B

09:30 - 11:00

SESSION: Wireless 2

Session Chair: **Jasmin Mušovic and Miran Gosta**

Andrey S. Goponenko, Oleg V. Stukach, Arman B. Mirmanov, Vladislav A. Kochumeev

15 Watt High Efficiency Gunn Diode Transmitter for Measurement-While-Drilling Wireless System

Oleg V. Stukach, Andrey S. Goponenko, Arman B. Mirmanov, Vladislav A. Kochumeev

Equipment for Extract Behavioral Transmitter Models for the New Communication Telemetry System Design

Irfan Oksar

A Bluetooth Signal Strength Based Indoor Localization Method

Sebastian Baumgartner, Gangolf Hirtz

Narrowband Interference Estimation for OFDM Based On Power Spectral Density Functions

Kemal Huseinovic, Mirko Škrbic, Lamija Kasumagic, Jasmin Mušovic

Future of Mobile TV in Bosnia and Herzegovina

11:00 - 11:30

Coffee break

11:30 - 12:30

SESSION: Image and video processing 5

Session Chair: **Irena Galić and Časlav Livada**

Marek Loderer, Jarmila Pavlovičová, Matej Féder, Miloš Oravec

Data Dimension Reduction in Training Strategy for Face Recognition System

Hrvoje Leventić, Časlav Livada, Irena Galic

Towards Fixed Facial Features Face Recognition

Moazzam Butt, Naser Damer

Helper Data Scheme for 2D Cancelable Face Recognition using Bloom Filters

12:30 - 14:00

Lunch break