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## ELMAR-2011 SYMPOSIUM GENERAL INFORMATION

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53<sup>rd</sup> International Symposium ELMAR-2011 is organised by:

- *Croatian Society Electronics in Marine - ELMAR, Zadar*
- *Department of Wireless Communications,  
Faculty of Electrical Engineering and Computing, University of Zagreb*

ELMAR-2011 symposium will be held at hotel "Donat" and hotel "Funimation", Borik, Zadar.  
Address: Majstora Radovana 7, 23000 Zadar, Croatia.

### ELMAR-2011 symposium GENERAL SPONSOR

**TANKERSKA PLOVIDBA, ZADAR**



### ELMAR-2011 symposium SPONSORS

**OiV - Transmitters and Communications**



**HRT - Croatian Radio and Television**



ELMAR-2011 symposium takes place under the co-sponsorship of:

- *IEEE Region 8*
- *IEEE Croatia Section*
- *IEEE Croatia Section Chapter of the Signal Processing Society*
- *IEEE Croatia Section Joint Chapter of the AP/MTT Societies*
- *The European Association for Signal, Speech and Image Processing - EURASIP*
- *Ministry of Science, Education and Sports of the Republic of Croatia*
- *Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia*
- *The Foundation of the Croatian Academy of Sciences and Arts*
- *University of Zagreb*
- *Faculty of Electrical Engineering and Computing, University of Zagreb*
- *University of Zadar*

ELMAR-2011 symposium is supported by:

- *JANAF - Jadranski naftovod*
- *Hrvatski Telekom*
- *Mobis Electronic*
- *Ericsson Nikola Tesla*
- *KONČAR - Institut za elektrotehniku*
- *AVC - Audio Video Consulting*
- *Maraska*
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- *Zagreb Tourist Board and Convention Bureau*
- *Zadar Tourist Board*
- *County of Zadar*
- *Town of Zadar*
- *Falkensteiner Borik Zadar Croatia*



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Branka Zovko-Cihlar, University of Zagreb, Croatia

### Program Chair

Mislav Grgić, University of Zagreb, Croatia

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## ELMAR-2011 SYMPOSIUM INTERNATIONAL PROGRAM COMMITTEE

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**ELMAR-2011 SYMPOSIUM  
SPECIAL SESSIONS**

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Special Session 1: "IR Imaging and Thermography Applications - ITA"  
Organizers: *Karolj Skala* and *Darko Kolaric*, Croatia

Special Session 2: "Precise Carrier Phase Positioning with Global Navigation Satellite Systems"  
Organizer: *Patrick Henkel*, Germany

Special Session 3: "New Frontiers in Antenna System Design"  
Organizers: *Juraj Bartolic* and *Zvonimir Sipus*, Croatia

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**CROATIAN SOCIETY  
ELECTRONICS IN MARINE - ELMAR**

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# ELMAR-2011 PROGRAM

**Wednesday, 14 September 2011**

09:00 - 09:30 <b>Registration</b>		
<b>HALL A</b>		
09:30 - 10:00 <b>OPENING SESSION: Welcome Speeches</b>		
10:00 - 10:30 <b>WELCOME COCKTAIL</b>		
10:30 - 12:30 <b>PLENARY SESSION: Keynote Talks</b>		
12:30 - 14:00 <b>Lunch Break</b>		
<b>HALL A</b>	<b>HALL B</b>	<b>HALL C</b>
14:00 - 15:30 <b>SESSION:</b> <b>Image and Video Processing 1</b>	14:00 - 15:30 <b>SESSION:</b> <b>Wireless Communications</b>	14:00 - 15:30 <b>SESSION:</b> <b>Navigation Systems</b>
15:30 - 16:00 <b>Coffee Break</b>		
16:00 - 17:30 <b>SESSION:</b> <b>Image and Video Processing 2</b>	16:00 - 17:30 <b>SESSION:</b> <b>Student Session</b>	16:00 - 17:30 <b>SPECIAL SESSION:</b> <b>Precise Carrier Phase Positioning with Global Navigation Satellite Systems</b>
18:00 - 21:00 <b>GUIDED ZADAR SIGHTSEEING</b> <u>Meeting Point:</u> Hotel "Funimation", Main Entrance, 18:00		
21:00 <b>ELMAR-2011 SYMPOSIUM DINNER</b> <b>(with cocktail and concert)</b> Hotel "Funimation" Restaurant		

# ELMAR-2011 PROGRAM

## Thursday, 15 September 2011

HALL A		
09:00 - 09:30 <b>PLENARY SESSION: Keynote Talk</b>		
HALL A	HALL B	HALL C
9:30 - 11:00 <b>SESSION:</b> Image and Video Processing 3	9:30 - 11:00 <b>SESSION:</b> Speech and Audio Processing 1	9:30 - 11:00 <b>SPECIAL SESSION:</b> New Frontiers in Antenna System Design (1/2)
11:00 - 11:15 <b>Coffee Break</b>		
11:15 - 12:45 <b>SESSION:</b> Image and Video Processing 4	11:15 - 12:45 <b>SESSION:</b> Speech and Audio Processing 2	11:15 - 12:45 <b>SPECIAL SESSION:</b> New Frontiers in Antenna System Design (2/2)
13:15 - 21:00 <b>EXCURSION BY SHIP</b> (lunch and dinner included) <u>Meeting Point:</u> Hotel "Funimation", Main Entrance, 13:15		

## Friday, 16 September 2011

HALL A	HALL B
9:00 - 10:30 <b>SESSION:</b> Image and Video Processing 5	9:00 - 10:30 <b>SESSION:</b> Power Electronics and Automation
10:30 - 11:00 <b>Coffee Break</b>	
11:00 - 13:00 <b>SPECIAL SESSION:</b> IR Imaging and Thermography Applications - ITA	11:00 - 12:30 <b>SESSION:</b> Multimedia Communications

## Wednesday, 14 September 2011

09:00 - 09:30      **Registration**

**HALL A**

**Wednesday, 14 September 2011**

09:30 - 10:00      **OPENING SESSION: Welcome Speeches**

Session Chair:      **Branka Zovko-Cihlar, Viljem Jerič**

10:00 - 10:30      **WELCOME COCKTAIL**

10:30 - 12:30      **PLENARY SESSION: Keynote Talks**

Session Chair:      **Krešimir Delač**

**Prof. Helmut Bölcskei, Department of Information Technology and Electrical Engineering, Swiss Federal Institute of Technology Zurich; SWITZERLAND**  
Nonparametric Identification of Linear Time-Varying Systems

**Dr. Julia A. Schnabel, Institute of Biomedical Engineering, Department of Engineering Science, University of Oxford; UNITED KINGDOM**  
Challenges and Recent Advances in Cancer Image Analysis

**Prof. Juraj Bartolic, Department of Wireless Communications, Faculty of Electrical Engineering and Computing, University of Zagreb; CROATIA**  
Overview of Innovative Antenna Research at the University of Zagreb

12:30 - 14:00      **Lunch Break**

14:00 - 15:30      **SESSION: Image and Video Processing 1**

Session Chair:      **Krešimir Delač**

**Dijana Tralic, Sonja Grgic; CROATIA**  
Signal Reconstruction via Compressive Sensing

**Jelena Bozek, Mislav Grgic, Julia Schnabel; CROATIA**  
Validation of Rigid Registration of Mammographic Images

**Petra Koruga, Miroslav Bača, Jurica Ševa; CROATIA**  
Application of Modified Anthropometric Model in Facial Age Estimation

**Ioan Buciu, Alexandru Gacsadi; ROMANIA**  
Noise Suppression Methods for Low Quality Images with Application to Face Recognition

**Jozef Ban, Matej Féder, Miloš Oravec, Jarmila Pavlovičová; SLOVAKIA**  
Enhancement of One Sample per Person Face Recognition Accuracy by Training Sets Extension

**Ľuboš Omelina, Miloš Oravec; SLOVAKIA**  
Efficient Face Expression Generation for Face Recognition

**Jaroslav Polec, Sandra Ondrušová, Lenka Krulíková; SLOVAKIA**  
Model-based Face Image Coding Using Face Prototyping and H.264

15:30 - 16:00      **Coffee Break**

16:00 - 17:30      **SESSION: Image and Video Processing 2**

Session Chair:      **Krešimir Delač**

**Ahmet Mert, Niyazi Kilic, Aydın Akan; TURKEY**  
Breast Cancer Classification by Using Support Vector Machines with Reduced Dimension

**Matija Males, Danijel Mileta, Mislav Grgic; CROATIA**  
Digital Breast Tomosynthesis: A Technological Review

**Mario Muštra, Mislav Grgic, Renata Huzjan-Korunic; CROATIA**  
Mask Extraction from Manually Segmented MIAS Mammograms

**Tomislav Fištrek, Sven Lončarić; CROATIA**  
Traffic Sign Detection and Recognition using Neural Networks  
and Histogram based Selection of Segmentation Method

**Lorenzo Ciardelli, Lucio Marcenaro, Carlo S. Regazzoni; ITALY**  
Smart Sensing Framework for Automotive Safety based on a Dual-Camera System and  
CANBus Data

**Jorge García Bueno, Piotr Jurewicz Slupska, Nicolas Burrus, Luis Moreno; SPAIN**  
Textureless Object Recognition and Arm Planning for a Mobile Manipulator

18:00 - 21:00      **GUIDED ZADAR SIGHTSEEING**  
Meeting Point: Hotel "Funimation", Main Entrance, 18:00

21:00      **ELMAR-2011 SYMPOSIUM DINNER (with cocktail and concert)**  
Hotel "Funimation" Restaurant

14:00 - 15:30

**SESSION: Wireless Communications**Session Chair: **Borivoj Modlic****Sami H. O. Salih, Mamoun M. A. Suliman; SUDAN**

Implementation of Adaptive Modulation and Coding Techniques using Matlab

**Jiri Blumenstein, Josep Colom Ikuno, Jan Prokopec, Markus Rupp;****AUSTRIA / CZECH REPUBLIC**

Simulating the Long Term Evolution Uplink Physical Layer

**Alexandru Ochetan, George Lojewski, Hicham Belyamoun, Said Zouhdi;****ROMANIA / FRANCE**

Triple-Band Power Divider Based on the Composite Right-/Left-Handed Metamaterial Transmission Line for Telecommunication Applications

**Peteris Apse-Apsitis, Ansis Avotins, Leonids Ribickis; LATVIA**

Concept of Low-Cost Energy Monitoring System for Household Application

**Helen Leligou, Panagiotis Karkazis, Theodore Zahariadis, Terpsihori Velivassaki,****Thanasis Tsiodras, Chris Matrakidis, Stamatis Voliotis; GREECE**

The Impact of Indirect Trust Information Exchange on Network Performance and Energy Consumption in Wireless Sensor Networks

**Iosif Androulidakis, Gorazd Kandus; SLOVENIA**

Bluetooth® Usage Among Students as an Indicator of Security Awareness and Feeling

**Milan Zelina, Miloš Oravec; SLOVAKIA**

Early Detection of Network Applications Using Neural Networks

15:30 - 16:00

**Coffee Break**

16:00 - 17:30

**SESSION: Student Session**Session Chair: **Iva Bojic and Jelena Bozek****Jennie Steshenko, Eugene Kagan, Irad Ben-Gal; ISRAEL**

A Simple Protocol for a Society of NXT Robots Communicating via Bluetooth

**Kasper Marstal, Henrik Gudbergesen, Mikael Boesen, Olga Kubassova, Rasmus****Bouert, Henning Bliddal; DENMARK / UNITED KINGDOM**

Semi-automatic Segmentation of Knee Osteoarthritic Cartilage in Magnetic Resonance Images

**Yauhen Sachkou, Andrei Andryieuski, Andrei V. Lavrinenko; BELARUS / DENMARK**

Impedance Conjugate Matching of Plasmonic Nanoantenna in Optical Nanocircuits

**Estevão S. Gedraite, Murielle Hadad; BRAZIL**

Investigation on the Effect of a Gaussian Blur in Image Filtering and Segmentation



**Mohammad Hossein Daraei Haji Tooei, Jamshid Rezaie Mianroodi, Narges Norouzi, Anahid Khajooeizadeh; IRAN**

An Innovative Implementation of Circular Hough Transform using Eigenvalues of Covariance Matrix for Detecting Circles

18:00 - 21:00 **GUIDED ZADAR SIGHTSEEING**

Meeting Point: Hotel "Funimation", Main Entrance, 18:00

21:00 **ELMAR-2011 SYMPOSIUM DINNER (with cocktail and concert)**

Hotel "Funimation" Restaurant

14:00 - 15:30      **SESSION: Navigation Systems**

Session Chair:      **Tomislav Kos**

**Renato Ivče, Irena Jurdana, Robert Mohović; CROATIA**  
Vibrations Monitoring on Board Ship with a Fiber Optic Sensors

**Kemal Lutvica, Nihad Kadic, Gregor Džampo, Hajrudin Muminovic, Jasmin Velagic, Nedim Osmic; BOSNIA AND HERZEGOVINA**  
Remote Position Control of Mobile Robot Based on Visual Feedback and ZigBee Communication

**Jasmin Velagic, Nedim Osmic, Faris Hodzic, Harun Siljak; BOSNIA AND HERZEGOVINA**  
Outdoor Navigation of a Mobile Robot Using GPS and GPRS Communication System

**Yuhong Yang, Junchuan Zhou, Otmar Loffeld; GERMANY**  
Applying a Fine Doppler Acquisition Method on Software GPS Receiver with Field Experiment

**Radoslav Vargic, Martin Bunčák, Juraj Kačur; SLOVAKIA**  
On Self-similarity in Service Triggering in NGN Networks Using Satellite Based Tolling Systems

**Mladen Viher, Tomislav Kos, Ivan Markezic; CROATIA**  
A Study of the Maximal Height for the Exponential Model of the Refractivity Index Vertical Profile in the Republic of Croatia

**Josip Vuković, Tomislav Kos; CROATIA**  
Ionospheric Time-Delay Models for GNSS

15:30 - 16:00      **Coffee Break**

16:00 - 17:30      **SPECIAL SESSION:  
Precise Carrier Phase Positioning with  
Global Navigation Satellite Systems**

Session Chair:      **Patrick Henkel**

**Zhibo Wen, Patrick Henkel, Christoph Günther; GERMANY**  
Reliable Estimation of Phase Biases of GPS Satellites with a Local Reference Network

**J. Sebastian Knogl, Patrick Henkel, Christoph Günther; GERMANY**  
Precise Positioning of a Geostationary Data Relay using LEO Satellites

**Patrick Henkel; GERMANY**  
Reduction and Optimization of Almanac transmission for GNSS Satellites

18:00 - 21:00      **GUIDED ZADAR SIGHTSEEING**  
Meeting Point: Hotel "Funimation", Main Entrance, 18:00

21:00      **ELMAR-2011 SYMPOSIUM DINNER (with cocktail and concert)**  
Hotel "Funimation" Restaurant

## Thursday, 15 September 2011

**HALL A**

**Thursday, 15 September 2011**

09:00 - 09:30 **PLENARY SESSION: Keynote Talk**

Session Chair: **Krešimir Delač**

**Dr. Gerald Schaefer, Department of Computer Science, Loughborough University; UNITED KINGDOM**

Colour for Image Retrieval and Image Browsing

09:30 - 11:00 **SESSION: Image and Video Processing 3**

Session Chair: **Krešimir Delač**

**Deniz Özenli, Melih Pazarcı; TURKEY**

Performance Analysis of Dirac Video Codec in Different Motion Vector Accuracies and Wavelet Lifting Decompositions

**Lenka Krulíková; SLOVAKIA**

A Novel Method of Adaptive GOP Structure Based on the Positions of Video Cuts

**Petra Heribanová, Jaroslav Polec, Lenka Krulíková; SLOVAKIA**

Logatom Intelligibility of Single-Handed Finger Alphabet

**Igor Vujović, Ivica Kuzmanić, Slobodan M. Beroš, Joško Šoda; CROATIA**

Choosing Wavelet Pairs in Suppression of Illumination Variations for Port Surveillance

**Pieterjan De Potter, Ioannis Kypraios, Steven Verstockt, Chris Poppe, Rik Van de Walle; BELGIUM / UNITED KINGDOM**

Automatic Available Seat Counting In Public Rail Transport Using Wavelets

**Meilin Yang, Ye He, Fengqing Zhu, Marc Bosch, Mary Comer, Edward J. Delp; USA**

Video Coding: Death is Not Near

11:00 - 11:15 **Coffee Break**

11:15 - 12:45 **SESSION: Image and Video Processing 4**

Session Chair: **Krešimir Delač**

**Irena Orovic, Srdjan Stankovic, Bijan Mobasseri, Marie Chabert; MONTENEGRO / USA / FRANCE**

A Robust Image Watermarking Procedure by using the Hermite Projection Method

**Javier Silvestre-Blanes, Rubén Pérez-Lloréns; SPAIN**

SSIM and Their Dynamic Range for Image Quality Assessment

**Salahaldeen Altous, Muhammad Kashif Samee, Jürgen Götze; GERMANY**

Reduced Reference Image Quality Assessment for JPEG Distortion

**Salahaldeen Altous, Muhammad Kashif Samee, Jürgen Götze; GERMANY**  
Blind Quantization Ratio Estimation for JPEG Images Using Digital Watermarking

**Andela Zaric, Nenad Tatalovic, Nikolina Brajkovic, Hrvoje Hlevnjak,  
Matej Loncaric, Emil Domic, Sonja Grgic; CROATIA**  
VCL@FER Image Quality Assessment Database

13:15 - 21:00

**EXCURSION BY SHIP** (lunch and dinner included)  
Meeting Point: Hotel "Funimation", Main Entrance, 13:15

09:30 - 11:00

**SESSION: Speech and Audio Processing 1**Session Chairs: **Gregor Rozinaj****Ivan Aleksí, Dieter Kraus, Źeljko Hocenski; CROATIA / GERMANY**

Multi-Language Programming Environment for C++ Implementation of SONAR Signal Processing by Linking with MATLAB External Interface and FFTW

**Petr Cerva, Karel Palecek, Jan Silovsky, Jan Nouza; CZECH REPUBLIC**

An Investigation into VTLN for Improved Transcription of Czech Broadcast Programs

**Jan Silovsky, Petr Cerva, Jindrich Zdansky; CZECH REPUBLIC**

Assessment of Speaker Recognition on Lossy Codecs Used for Transmission of Speech

**Josef Chaloupka; CZECH REPUBLIC**

Design of Audio-Visual TV Broadcast News Transcription System Prototype

**Bálint Tóth, Sándor Berki, Géza Németh; HUNGARY**

Distinctive Features in a Hungarian Hidden Markov Model Based TTS System

**Martin Turi Nagy, Ivan Minárik; SLOVAKIA**

Psychoacoustical Approach to Sinusoidal Modeling of Speech

11:00 - 11:15

**Coffee Break**

11:15 - 12:45

**SESSION: Speech and Audio Processing 2**Session Chair: **Gregor Rozinaj****Matúš Vasek, Gregor Rozinaj, Renata Rybárová; SLOVAKIA**

Training Database Preparation for LTS Rules Training Process with Wagon

**Ján Tóth, Anna Kondelová, Gregor Rozinaj; SLOVAKIA**

Natural Language Processing of Abbreviations

**Zoran Brajević; CROATIA**

Elimination of Unwanted Signals in Audio Materials Using Wavelet Transform

**Danilo Misovic, Nikola Ljumovic, Milutin Radonjic, Igor Radusinovic; MONTENEGRO**

Implementation of the Crosspoint-Queued Switch's Output Controller on the NetFPGA Platform

13:15 - 21:00

**EXCURSION BY SHIP (lunch and dinner included)**Meeting Point: Hotel "Funimation", Main Entrance, 13:15

09:30 - 11:00

**SPECIAL SESSION: New Frontiers in Antenna System Design 1/2**Session Chair: Juraj Bartolic and Zvonimir Sipus**Zvonimir Sipus; CROATIA**

NEWFOCUS: New frontiers in millimetre / sub-millimetre waves integrated dielectric focusing systems

**Gordana Klaric Felic, David Ng, Efstratios Skafidas; AUSTRALIA**

A 60-GHz Coplanar Waveguide Series Feeding Antenna Array for Transceiver Front-End Integration

**Marko Bosiljevac, Zvonimir Sipus; CROATIA**

Controlling the Path of Electromagnetic Waves Inside Parallel Plate Waveguides Using Periodic Surfaces

**Antonio Šarolić, Damir Senić, Zlatko Živković; CROATIA**

Some Preliminary Results of Radiation Pattern Measurements for a Vertical Dipole over Sea

**Vanja Mandrić, Slavko Rupčić, Danijel Pilski; CROATIA**

Experimental Results of Spherical Arrays of Circular Waveguide and Microstrip Antennas

**Tin Komljenovic, Zvonimir Sipus; CROATIA**

Optimizing Electromagnetic Problems at University of Zagreb – An Overview

11:00 - 11:15

**Coffee Break**

11:15 - 12:45

**SPECIAL SESSION: New Frontiers in Antenna System Design 2/2**Session Chair: Juraj Bartolic and Zvonimir Sipus**Iva Bačić, Tomislav Salopek, Krešimir Malarić; CROATIA**

Digital Filter Analysis in Communication Channels

**Ivan Vilović, Nikša Burum, Ivan Čendo; CROATIA**

Optimal Location of Transmitter for Indoor Communications

**Davor Zaluški, Damir Muha, Silvio Hrabar, Luka Drpić; CROATIA**

Recent Progress in DB Surface Realization

**Iva Malcic, Silvio Hrabar, Luka Juricev-Sudac; CROATIA**

Numerical Analysis of Lumped-element-based Planar Anisotropic Cloak

**Boris Okorn, Silvio Hrabar, Igor Krois; CROATIA**

Investigation of Basic Physics of Non-Foster Negative Capacitance in Time Domain

**Damir Muha, Nevena Hrzenjak, Silvio Hrabar, Davor Zaluski; CROATIA**

An RF Analogue of ENZ Dielectric Waveguide

13:15 - 21:00

**EXCURSION BY SHIP (lunch and dinner included)**Meeting Point: Hotel "Funimation", Main Entrance, 13:15

## Friday, 16 September 2011

**HALL A**

**Friday, 16 September 2011**

09:00 - 10:30      **SESSION: Image and Video Processing 5**

Session Chair:      **Lidija Mandić**

**Daniel Roguljić, Vladan Papić; CROATIA**

Procedure for Non-photorealistic Rendering in Pointillist Style

**Xin Cheng, Benny Thörnberg, Waheed Malik; SWEDEN**

Optimized Color Pair Selection for Label Design

**Ondřej Kaller, Libor Boleček, Tomáš Kratochvíl; CZECH REPUBLIC**

Profilometry Scanning for Correction of 3D Images Depth Map Estimation

**Lidija Mandić, Maja Strgar Kurečić, Ante Poljičak, Darko Agić; CROATIA**

Changes in Perception of Colorimetric Differences Caused by Different Backgrounds

**Srećko Kunić, Zoran Šego; CROATIA**

3D Television

**Alen Luštica; CROATIA**

CCD and CMOS Image Sensors in New HD Cameras

10:30 - 11:00      **Coffee Break**

11:00 - 13:00      **SPECIAL SESSION:  
IR Imaging and Thermography Applications - ITA**

Session Chair:      **Karolj Skala and Darko Kolaric**

**Marko Banić, Darko Kolaric, Svetlana Antonini, Željko Ferenčić,  
Sanja Pleško, Lidija Petričušić; CROATIA**

Potential Role of Thermography in Evaluation of Disease Activity in Inflammatory Bowel Disease - a Case Report

**Nikola Borojević, Darko Kolaric, Simeon Grazio, Frane Grubišić,  
Svetlana Antonini, Iskra Alexandra Nola, Željko Herceg; CROATIA**

Thermography of Rheumatoid Arthritis and Osteoarthritis

**Domagoj Đikić, Darko Kolaric, Duje Lisičić, Vesna Benković, Anica Horvat-Knežević,  
Zoran Tadić, Katarina Školnik-Gadanac, Nada Oršolić; CROATIA**

Use of Thermography in Studies of Thermodynamics in Frogs Exposed to Different Ambient Temperatures

**Katja Gotovac, Darko Kolaric, Iskra A. Nola, Krešo Bendelja; CROATIA**

Utilization of Thermal Imaging for Monitoring in vitro Processes

**Tomislav Kulis, Darko Kolaric, Kresimir Karlovic, Matej Knezevic,  
Boris Hreckovski, Svetlana Antonini, Zeljko Kastelan; CROATIA**

Scrotal Infrared Digital Thermography in Assessment of Varicocele - Pilot Study

**Darko Kolarić, Tomislav Lipić, Ivan Grubišić, Luko Gjenero, Karolj Skala; CROATIA**  
Application of Infrared Thermal Imaging in Blade System Temperature Monitoring

**Jadranka Skurić, Nada Oršolić, Darko Kolarić, Domagoj Đikić, Vesna Benković, Duje Lisičić, Anica Horvat Knežević, Branka Maldini; CROATIA**  
Thermography in Assessing the Inflammatory Skin Changes and Effectivity of Flavonoids on Animal Model Psoriasis

**Svetlana Antonini, Darko Kolarić, Iskra Aleksandra Nola, Željko Herceg, Vesna Ramljak, Tomislav Kuliš, Jadranka Katančić Holjevac, Željko Ferenčić; CROATIA**  
Thermography Surveillance after Breast Conserving Surgery - Three Cases



09:00 - 10:30

**SESSION: Power Electronics and Automation**Session Chair: **Vladimir Roboz****Robert Ilg, Josef Fritsche, Horatiu Pilsan, Reinhard Schneider; AUSTRIA**

Off-the-Shelf Controllers for Electronic Ship Systems

**Ramon Ferreiro Garcia, Francisco Javier Perez Castelo, Alberto De Miguel Catoira; SPAIN**

Control Signal Correction for AMB Vibration Control

**Francisco Javier Perez Castelo, Ramon Ferreiro Garcia, Andres Jose Piñon Pazos; SPAIN**

Virtual Intelligent Sensors for Distributed Environments Based on Industrial Ethernet: An Approach

**Jasmin Velagic, Admir Kaknjo, Nedin Osmic and Tarik Džananovic; BOSNIA AND HERZEGOVINA**

Networked Based Control and Supervision of Induction Motor Using OPC Server and PLC

**Aleksandar Cuculić, Dubravko Vučetić, Vinko Tomas; CROATIA**

High Voltage Shore Connection

**Jan Bořil, Rudolf Jalovecký; CZECH REPUBLIC**

Response of the Mechatronic System, Pilot-Aircraft, on Incurred Step Disturbance

10:30 - 11:00

**Coffee Break**

11:00 - 12:30

**SESSION: Multimedia Communications**Session Chair: **Miloš Oravec****Ladislav Polák, Tomáš Kratochvíl; CZECH REPUBLIC**

DVB-SH-A Transmission in Gaussian and Mobile Fading Channels

**Filip Pilka, Miloš Oravec; SLOVAKIA**

Multi-step Ahead Prediction Using Neural Networks

**Denis Vranješ, Mario Vranješ, Snježana Rimac-Drlje; CROATIA**

Video Content Complexity and Performance of Video Transmission over IP and WLAN Networks

**Andjelko Kopecki, Snjezana Rimac-Drlje; CROATIA**

Analysis of Measurement Results of DVB-T Signals in Croatia

**Pavol Podhradský, Radovan Kadlic, Juraj Londák, Ondrej Lábaj, Dušan Levický; SLOVAKIA**

Enhanced ICT in Virtual Training and m-learning

**André Luiz Brazil, Angel Sanchez, Aura Conci, Narcis Behlilovic; BRAZIL / SPAIN / BOSNIA AND HERZEGOVINA**

Hybridizing Genetic Algorithms and Path Relinking for Steganography

## NOTES

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