

ELMAR-2017 PROGRAM

Monday, September 18	Tuesday, September 19	Wednesday, September 20
8:30 - 16:30 Registration	9:00 - 11:30 Registration	9:00 - 11:30 Registration
9:00 - 9:30 OPENING SESSION: Welcome Speeches	9:00 - 11:15 Special Session 3 and Session 3	9:00 - 10:30 Sessions 6 & 7
9:30 - 10:00 Welcome Cocktail	11:15 - 11:30 Session Break	10:30 - 11:00 Session break
10:15 - 12:30 PLENARY SESSION: Keynote Talks	11:30 - 12:30 Session 4 & 5	11:00 - 12:30 Sessions 8 & 9
12:30 - 14:00 Lunch Break	13:00 - 20:00 Excursion by Ship* <i>*Lunch on board</i>	12:30 - 14:00 Lunch Break
14:15 - 17:00 Special Sessions 1 & 2 and Sessions 1 & 2		14:00 - 16:30 Sessions 10 & 11
17:15 - 20:00 Guided Zadar Sightseeing		15:45 Closing Session
21:00 ELMAR-2017 Symposium Gala Dinner	20:30 Dinner	

ELMAR-2017 PROGRAM

Monday, 18 September 2017

8:30 - 16:30 Registration	
HALL A	
9:00 - 09:30	OPENING SESSION: Welcome Speeches
09:30 - 10:00 WELCOME COCKTAIL Bar at Hotel "Donat"	
HALL A	
10:15 - 12:30	PLENARY SESSION: Keynote Talks
12:30 - 14:00 Lunch Break	
HALL A	HALL B
14:15 - 15:45 SPECIAL SESSION 1: Intelligent Transport Systems	14:15 - 15:45 SESSION 1: Multimedia Communications
16:00 - 17:00 SPECIAL SESSION 2: Computer Vision for New Emerging Applications	16:00 - 17:00 SESSION 2: Wireless Communications 1
17:15 - 20:00 GUIDED ZADAR SIGHTSEEING <u>Meeting Point:</u> Hotel "Funimation", Main Entrance, 17:15	
21:00 ELMAR-2017 SYMPOSIUM GALA DINNER <u>Meeting Point:</u> Hotel "Funimation", 21:00	

ELMAR-2017 PROGRAM

Tuesday, 19 September 2017

9:00 - 11:30		Registration
HALL A	HALL B	
9:00 - 11:15 SPECIAL SESSION 3: Radar Systems	9:00 - 11:15 SESSION 3: Speech and Audio Processing	
11:15 - 11:30		Session Break
11:30 - 12:30 SESSION 4: Wireless Communications 2	11:30 - 12:30 SESSION 5: Image Processing 1	
13:00 - 20:00 EXCURSION BY SHIP <u>Meeting Point:</u> Hotel "Funimation", Main Entrance, 12:45 <i>Lunch will be served on board the ship</i>		
20:30 DINNER		

ELMAR-2017 PROGRAM

Wednesday, 20 September 2017

9:00 - 11:30		Registration	
HALL A		HALL B	
9:00 - 10:30 SESSION 6: Telecommunications		9:00 - 10:30 SESSION 7: Power Electronics and Automation	
10:30 - 11:00		Session Break	
11:00 - 12:30 SESSION 8: Image Processing 2		11:00 - 12:30 SESSION 9: Smart Systems	
12:30 - 14:00		Lunch Break	
14:00 - 15:30 SESSION 10: Navigation Systems		14:00 - 15:30 SESSION 11: Sea Ecology	
15:45		CLOSING SESSION	

Monday, 18 September 2017

8:30 - 16:30 **Registration**

HALL A

Monday, 18 September 2017

9:00 - 9:30 **OPENING SESSION: Welcome Speeches**

Session Chairs: **Branka Zovko-Cihlar, Mario Muštra**

9:30 - 10:00 **WELCOME COCKTAIL**
Bar at Hotel "Donat"

10:15 - 12:30 **PLENARY SESSION: Keynote Talks**

Session Chair: **Branka Zovko-Cihlar**

**Prof. Panos Liatsis, Department of Electrical Engineering, The Petroleum Institute
UAE**

Patient-Specific Blood Flow Modelling in the Assessment of Functional Stenosis Severity

Tigran Vržina, Transmitters & Communications Ltd., CROATIA

Impact of Transition from Analog (FM) to Digital (DAB+) Sound Broadcasting on
Environmental Preservation

**Prof. Peter Planinšič, University of Maribor, Faculty of Electrical Engineering and
Computer Science, SLOVENIA**

SAR-images Analysis and Applications

12:30 - 14:00 **Lunch Break**

14:15 - 15:45

SPECIAL SESSION 1: Intelligent Transport Systems

Session Chairs: Mario Muštra, Sadko Mandžuka

Borna Kapusta, Mladen Miletić, Edouard Ivanjko, Miroslav Vujić; CROATIA
Preemptive Traffic Light Control based on Vehicle Tracking and Queue Lengths

**Daniel Pavleski, Daniela Koltovska-Nechoska, Edouard Ivanjko; MACEDONIA/
CROATIA**
Evaluation of Adaptive Traffic Control System UTOPIA using Microscopic Simulation

Krešimir Vidović, Sadko Mandžuka, Davor Brčić; CROATIA
Estimation of Urban Mobility using Public Mobile Network

Emir Žunić, Almir Djedović, Dženana Đonko; BOSNIA AND HERZEGOVINA
Cluster-based analysis and time-series prediction model for reducing the number of traffic accidents

Tomislav Erdelić, Tonči Carić, Martina Ravlić; CROATIA
Predicting Waiting Times at Intersections

Pero Škorput, Hrvoje Vojvodić, Sadko Mandžuka; CROATIA
Cyber Security in Cooperative Intelligent Transportation Systems

16:00 - 17:00

SPECIAL SESSION 2: Computer Vision for New Emerging Applications

Session Chairs: Irena Galić, Časlav Livada

**Hrvoje Leventić, Danilo Babin, Lazar Velicki, Irena Galić, Vladimir Zlokolica;
CROATIA/BELGIUM/SERBIA**
Semi-automatic Left Atrial Appendage Segmentation from 3D CCTA Images

Krešimir Romić, Irena Galić, Tomislav Galba; CROATIA
Technology Assisting the Blind - Routing on the Staircases Using Wide-angle Camera

Časlav Livada, Miro Proleta, Krešimir Romić, Hrvoje Leventić; CROATIA
Beyond the Touch: a Web Camera based Virtual Keyboard

**Monika Andonová, Jarmila Pavlovičová, Slavomír Kajan, Miloš Oravec, Veronika
Kurilová; SLOVAKIA**
Diabetic Retinopathy Screening Based on CNN

17:15 - 20:00

GUIDED ZADAR SIGHTSEEING

Meeting Point: Hotel "Funimation", Main Entrance, 17:15

21:00

ELMAR-2017 SYMPOSIUM GALA DINNER

Meeting Point: Hotel "Funimation", bar at the pool, 21:00

14:15 - 15:45 **SESSION 1: Multimedia Communications**

Session Chairs: Sonja Grgić, Jarmila Pavlovičová

Petra Dražić; CROATIA

The Propagation of Ka-Band Signals Through the Atmosphere

Srećko Kunić, Zoran Šego, Branka Zovko Cihlar; CROATIA

Analysis of Audio and Video Synchronization in TV Digital Broadcast Devices

Iliams Bajčinovci, Mario Vranješ, Danijel Babić, Branimir Kovačević; CROATIA/SERBIA

Subjective and Objective Quality Assessment of MPEG-2, H.264 and H.265 Videos

16:00 - 17:00 **SESSION 2: Wireless Communications 1**

Session Chair: Marko Bosiljevac

Martin Matis, Dominik Nezník, Dávid Hrabčák, Ľubomír Doboš, Ján Papaj; SLOVAKIA

Intelligent Channel Assigning in CR-MANET based on Spectrum Sensing

Dávid Hrabčák, Martin Matis, Dominik Nezník, Ľubomír Doboš, Ján Papaj; SLOVAKIA

Proposal of Simple Metrics for Evaluation of Social Ties in Mobility Models for MANET Networks

Botond Sandor Kirei, Calin Farcas, Robert Groza, Marina Dana Topa; ROMANIA

An All-Digital Frequency Locked Loop and its Linearized s-domain Model

17:15 - 20:00 **GUIDED ZADAR SIGHTSEEING**

Meeting Point: Hotel "Funimation", Main Entrance, 17:15

21:00

ELMAR-2017 SYMPOSIUM GALA DINNER

Meeting Point: Hotel "Funimation", bar at the pool, 21:00

Tuesday, 19 September 2017

9:00 - 12:30 **Registration**

HALL A

Tuesday, 19 September 2017

9:00 - 11:15 **SPECIAL SESSION 3: Radar Systems**

Session Chairs: **Winton Afrić, Jan Pidanič**

Tomáš Hnilička, Tomáš Zálabský, Vitezslav Krčmar; CZECH REPUBLIC
Design of Power Hybrid Structures for a N-port Power Combiner

Mirko Jukl, Siniša Lacković, Fran Pregernik; CROATIA
Digital Simulator of Radar Targets and Clutter for Surveillance Radar System

Michal Rezniček; CZECH REPUBLIC
Doppler CW Radar Signal Processing, Implementation and Analysis

Luboš Rejfeč, Ondrej Fišer, David Matousek, Ladislav Beran, Pavel Chmelar; CZECH REPUBLIC
Correction of Received Power for Doppler Measurements by FMICW Radars

Luboš Rejfeč, Ondrej Fišer, David Matousek, Ladislav Beran, Pavel Chmelar; CZECH REPUBLIC
Sensitivity Analysis of PCDR35 Radar

Tomáš Zálabský, Pavel Bezousek; CZECH REPUBLIC
Phase Interferometry for Approach Radars

Tomáš Zálabský, Pavel Bezousek, Tomáš Hnilička; CZECH REPUBLIC
An Antenna Array Synthesis for Large Vertical Aperture Antenna for Secondary Surveillance Radar

11:15 - 11:30 **Session Break**

11:30 - 12:30 **SESSION 4: Wireless Communications 2**

Session Chairs: Sonja Zentner Pilinsky

Jan Pidanič, Vojtech Valenta, Karel Juryca; CZECH REPUBLIC
The Radio Coverage Monitoring by Low-Cost System based on SDR

Srushti Shetty, Siniša Lacković, Sonja Zentner Pilinsky; INDIA/CROATIA
4G Coverage Analysis of Main Croatian Roads

Yury V. Yukhanov, Tatiana Y. Privalova; RUSSIA
Electromagnetic Scattering of Plane H-Polarized Wave by an Antenna Array of Loaded Planar Waveguides

Andrej Galoić, Branimir Ivšić, Davor Bonefačić; CROATIA
Rectifier for Energy Harvesting Application

Dominik Barbarić, Marko Bosiljevac, Zvonimir Šipuš; CROATIA
Realization of Distributed Optical-Fiber Temperature Sensor

Sanja Bauk, Jose Angel Leon Calvo, Rudolf Mathar, Anke Schmeink; MONTENEGRO/GERMANY
V2P/I Communication for Increasing Occupational Safety at a Seaport

13:00 - 20:00 **EXCURSION BY SHIP**
Meeting Point: Hotel "Funimation", Main Entrance, 12:45
Lunch will be served on ship

20:30 **DINNER**

9:00 - 11:15 **SESSION 3: Speech and Audio Processing**

Session Chairs: Gregor Rozinaj, Juraj Kacur

Rustam Latypov, Ruslan Nigmatullin, Evgeni Stolov; RUSSIA
Instantaneous Frequency and Detection of Dynamics in Speech

Juraj Kacur; SLOVAKIA
Gradual Enhancement of GMM for Speaker Identification

Tomáš Koctúr, Stanislav Ondáš, Jozef Juhár; SLOVAKIA
Speech Corpus Generation Based on N-gram Confidence Measure Classification

Marianna Rosinová, Martin Lojka, Ján Staš, Jozef Juhár; SLOVAKIA
Voice Command Recognition Using EEG Signals

Jan Staš, Daniel Hladek, Jozef Juhar; SLOVAKIA
Semantic Indexing and Document Retrieval for Personalized Language Modeling

Isidora Stanković, Cornel Ioana, Miloš Daković; MONTENEGRO/FRANCE
High-Resolution Local Polynomial Fourier Transform in Acoustic Signal Analysis

11:15 - 11:30 **Session Break**

11:30 - 12:30 **SESSION 5: Image Processing 1**

Session Chairs: Sonja Grgić, Jelena Božek

Matteo Brisinello, Ratko Grbić, Matija Pul, Tihomir Anđelić; CROATIA/SERBIA
Improving Optical Character Recognition Performance for Low Quality Images

**Dzenan Lapandić, Jasmin Velagić, Haris Balta; BOSNIA AND HERZEGOVINA/
BELGIUM**
Framework for Automated Reconstruction of 3D Model from Multiple 2D Aerial Images

Emina Hadrović, Dinko Osmanković, Jasmin Velagić; BOSNIA AND HERZEGOVINA
Aerial Image Mosaicing Approach Based on Feature Matching

Jozef Goga, Slavomír Kajan; SLOVAKIA
Hand Gesture Recognition Using 3D Sensors

13:00 - 20:00 **EXCURSION BY SHIP**
Meeting Point: Hotel "Funimation", Main Entrance, 12:45
Lunch will be served on ship

20:30 **DINNER**

Wednesday, 20 September 2017

9:00 - 15:30 **Registration**

HALL A

Wednesday, 20 September 2017

9:00 - 10:30 **SESSION 6: Telecommunications**

Session Chair: Pavol Podhradský

Viktor Stoynov, Zlatka Valkova-Jarvis; BULGARIA

Aggregated Assessment of Downlink Resource Scheduling Techniques in Indoor Environments via a Comparative Factor

Alen Begović, Namir Škaljo, Narcis Behlilović; BOSNIA AND HERZEGOVINA

On Using Various Local Loop Types in Recent VDSL Applications

Yevgeniya Sulema, Gregor Rozinaj; SLOVAKIA

WebRTC-based 3D Videoconferencing System

Juraj Londák, Martin Medvecký, Pavol Podhradský; SLOVAKIA

Virtual SDN and NFV Laboratory - Architecture and Implementation

Andjela Draganić, Irena Orović, Srdjan Stanković; MONTENEGRO

Spread-Spectrum-Modulated Signal Denoising based on Median Ambiguity Function

10:30 - 11:00 **Session Break**

11:00 - 12:30 **SESSION 8: Image Processing 2**

Session Chairs: Lidija Mandić, Mario Muštra

Jozef Gerát, Dominik Sopiak, Miloš Oravec, Jarmila Pavlovičová; SLOVAKIA

Vehicle Speed Detection from Camera Stream using Image Processing Methods

Zuzana Bukovčiková, Dominik Sopiak, Miloš Oravec, Jarmila Pavlovičová; SLOVAKIA

Face Verification Using Convolutional Neural Networks with Siamese Architecture

Moustafa M. Kurdi, Alex K. Dadykin, Imad A. Elzein; BELARUS

Proposed Encryption Method of Quadcopter's Video Transmitted to Underwater Robot by Using Block Packet Cipher

Ante Poljicak, Davor Donevski, Lidija Mandić; CROATIA

Applicability of the GCR Masking in an Image Watermarking Method

12:30 - 14:00 **Lunch Break**

14:00 - 15:30 **SESSION 10: Navigation Systems**

Session Chair: Tomislav Kos

Dimitar Dichev, Hristofor Koev, Dimitar Diakov, Nikolay Panchev, Rosica Miteva, Hristiyana Nikolova; BULGARIA

Automated System for Calibrating Instruments Measuring Parameters of Moving Objects

Jelena Petrović, Mladen Viher; CROATIA

Radar GIS for Site Acceptance Testing

Benjamin Weinert, Mathias Uslar, Axel Hahn; GERMANY

System-of-Systems: How the Maritime Domain can learn from the Smart Grid

15:45 **CLOSING SESSION**

9:00 - 10:30

SESSION 7: Power Electronics and Automation**Session Chair: Snježana Rimac-Drlje****Michal Reznicek; CZECH REPUBLIC**

Humidity Field Estimation

Andrzej Firlit, Krzysztof Kołek, Krzysztof Piątek; POLAND

Rapid Controller Development for a Dynamic Voltage Restorer

Andrzej Firlit, Krzysztof Kołek, Krzysztof Piątek; POLAND

Heterogeneous Active Power Filter Controller

Nedim Osmić, Jasmin Velagić; BOSNIA AND HERZEGOVINA

Design of a Simple Service Oriented Supervisory Control and Data Acquisition System

10:30 - 11:00

Session Break

11:00 - 12:30

SESSION 9: Smart Systems**Session Chairs: Dijana Vitas, Juraj Petrović****Tomas Krejci, Michal Mandlik; CZECH REPUBLIC**

Implementation of the Communication Chain for Education

Juraj Petrović, Dijana Vitas, Predrag Pale; CROATIA

Experiences with Supervised vs. Unsupervised Online Knowledge Assessments in Formal Education

Petar Taler, Safet Hamedović, Mirta Benšić, Emmanuel Karlo Nyarko; CROATIA/BOSNIA AND HERZEGOVINA

LeArEst - The Software for Border and Area Estimation of Data Measured with Additive Error

Juha Niemi, Juha T. Tantt; FINLAND

Automatic Bird Identification for Offshore Wind Farms: A Case Study for Deep Learning

Dušan Gleich, Peter Planinšič, Danijel Šipoš, Marko Malajner; SLOVENIA

Deep Convolutional Neural Networks for SAR Patch Categorization

Zoja Vulaj, Miloš Brajović, Anela Draganić, Irena Orović; MONTENEGRO

Detection of Irregular QRS Complexes using Hermite Transform and Support Vector Machine

12:30 - 14:00 **Lunch Break**

14:00 - 15:30 **SESSION 11: Sea Ecology**

Session Chair: Irena Jurdana

Goran Bakalar, Myriam Beatriz Baggini, Sebastian Gabriel Bakalar; USA

Protection of Adriatic Sea: Declaring New Nature Parks and New Protected Areas in Central Adriatic Region

Renato Ivče, Sanjin Valčić, Irena Jurdana; CROATIA

Assessment and Prediction Model of Ballast Water Management

Goran Bakalar, Myriam Beatriz Baggini, Sebastian Gabriel Bakalar; USA

Comparisons of Remote FCM Analysis System and Ordinary Analytical Methods for Identification of BW Content

Lorenzo Manzoli, Aldo Franco Dragoni, Andrea Bonci, Paolo Sernani, Massimiliano Pirani, Nicola Falcionelli; ITALY

A Boat-Based Flying Drone to Monitor Coastlines and Render them in Augmented Reality

15:45 **CLOSING SESSION**