

## ELMAR-2018 PROGRAM

Sunday, September 16	Monday, September 17	Tuesday, September 18	Wednesday, September 19
16:00 - 18:00 <b>Registration</b>	8:00 - 16:30 <b>Registration</b>	9:00 - 12:00 <b>Registration</b>	9:00 - 14:30 <b>Registration</b>
16:30 - 18:00 <b>S1: Telecommuni- cations</b> <b>S2: Smart Systems 1</b>	9:00 - 10:00 <b>OPENING SESSION: Welcome Speeches</b>	9:00 - 10:30 <b>S3: Image Processing 1</b> <b>SS2: Precise Positioning with GNSS, INS, Cameras or LPS</b>	9:00 - 10:30 <b>S5: Speech and Audio Processing</b> <b>S6: Wireless Communications</b>
	10:00 - 10:30 <b>Opening Cocktail</b>		
19:00 <b>Welcome Cocktail</b>	10:45 - 12:30 <b>PLENARY SESSION: Keynote Talks</b>	10:30 - 11:00 <b>Coffee Break</b>	10:30 - 11:00 <b>Coffee Break</b>
	12:30 - 14:00 <b>Lunch Break</b>	11:00 - 12:30 <b>S4: Image and Video Processing 2</b> <b>SS3: Radar Systems</b>  13:00 - 20:00 <b>Excursion by Ship*</b> <i>*Lunch on board</i>	11:00 - 12:30 <b>S7: Image and Video Processing 3</b> <b>S8: Smart Systems 2</b>
	14:00 - 16:30 <b>Workshop on DAB+</b> <i>* In Croatian</i>		12:30 - 14:00 <b>Lunch Break</b>
	14:00 - 17:00 <b>SS1: Intelligent Transport Systems</b>		14:00 - 15:00 <b>S9: Navigation Systems</b> <b>S10: Antennas and Propagation</b>
	17:15 - 20:00 <b>Guided Zadar Sightseeing</b>		15:15 <b>Closing Session</b>
	21:00 <b>ELMAR-2018 Symposium Gala Dinner</b>		

# ELMAR-2018 PROGRAM

**Sunday, 16 September 2018**

16:00 - 18:00 <b>Registration</b>	
<b>HALL A</b>	<b>HALL B</b>
16:30 - 18:00 <b>SESSION 1:</b> <b>Telecommunications</b>	16:30 - 18:00 <b>SESSION 2:</b> <b>Smart Systems 1</b>
19:00 <b>WELCOME COCKTAIL organised by the County Major of Zadar</b> <b>at the County Major's Garden</b> <u>Meeting Point:</u> Hotel "Funimation", Main Entrance, 18:15	

# ELMAR-2018 PROGRAM

**Monday, 17 September 2018**

8:00 - 16:30 <b>Registration</b>	
<b>HALL A</b>	
9:00 - 10:00	<b>OPENING SESSION: Welcome Speeches</b>
10:00 - 10:30 <b>OPENING COCKTAIL</b> organised by the Town Major of Zadar	
<b>HALL A</b>	
10:45 - 12:30	<b>PLENARY SESSION: Keynote Talks</b>
12:30 - 14:00 <b>Lunch Break</b>	
<b>HALL A</b>	<b>HALL B</b>
14:00 - 16:30 <b>Workshop on DAB+ in Croatia</b> Language: Croatian	14:00 - 17:00 <b>SPECIAL SESSION 1:</b> <b>Intelligent Transport Systems</b>
17:15 - 20:00 <b>GUIDED ZADAR SIGHTSEEING</b> <u>Meeting Point:</u> Hotel "Funimation", Main Entrance, 17:15	
21:00 <b>ELMAR-2018 SYMPOSIUM GALA DINNER</b> <u>Meeting Point:</u> Hotel "Donat" restaurant, 21:00	

# ELMAR-2018 PROGRAM

**Tuesday, 18 September 2018**

9:00 - 12:00 <b>Registration</b>	
<b>HALL A</b>	<b>HALL B</b>
9:00 - 10:30 <b>SESSION 3:</b> Image Processing 1	9:00 - 10:30 <b>SPECIAL SESSION 2:</b> Precise Positioning with GNSS, INS, Cameras or LPS
10:30 - 11:00 <b>Coffee Break</b>	
11:00 - 12:30 <b>SESSION 4:</b> Image and Video Processing 2	11:00 - 12:30 <b>SPECIAL SESSION 3:</b> Radar Systems
13:00 - 20:00 <b>EXCURSION BY SHIP</b> Meeting Point: Hotel "Funimation", Main Entrance, 12:45 <i>Lunch will be served on board the ship</i>	

# ELMAR-2018 PROGRAM

Wednesday, 19 September 2018

9:00 - 14:30		<b>Registration</b>	
<b>HALL A</b>		<b>HALL B</b>	
9:00 - 10:30 <b>SESSION 5:</b> <b>Speech and Audio Processing</b>		9:00 - 10:30 <b>SESSION 6:</b> <b>Wireless Communications</b>	
10:30 - 11:00		<b>Session Break</b>	
11:00 - 12:30 <b>SESSION 7:</b> <b>Image and Video Processing 3</b>		11:00 - 12:30 <b>SESSION 8:</b> <b>Smart Systems 2</b>	
12:30 - 14:00		<b>Lunch Break</b>	
14:00 - 15:00 <b>SESSION 9:</b> <b>Navigation Systems</b>		14:00 - 15:00 <b>SESSION 10:</b> <b>Antennas and Propagation</b>	
<b>HALL B</b>			
15:15		<b>CLOSING SESSION</b>	

## Sunday, 16 September 2018

16:00 - 18:00      **Registration**

**HALL A**

**Sunday, 16 September 2018**

16:30 - 18:00      **SESSION 1: Telecommunications**

**Session Chairs:**    **Pavol Podhradský, Dijana Vitas**

**Mladen Jakovac; CROATIA**

Measurements of Radiated Emissions up to 30 MHz from Installed Multi-pair Communication Cable

**Tomas Zitta, Marek Neruda, Milos Kozak, Lukas Vojtech; CZECH REPUBLIC**

Multi-Channel Access to Improve QWL in Health Care Services - Infrastructure Based QoS Ensurance in IoT

**Peter Farkaš, Katarína Farkašová, Eugen Ružický; SLOVAKIA**

New Transmission Technique which can Save Energy in Uplink Thanks to Supportive Transmission in Downlin

**Martin Medvecký, Radoslav Vargic, Juraj Londák, Pavol Podhradský, Peter Trúchly; SLOVAKIA**

Integration of Virtual SDN and NFV Laboratory with NEWTELP Platform

19:00                **WELCOME COCKTAIL**

Meeting Point: Hotel "Funimation", Main Entrance, 18:15

16:30 - 18:00      **SESSION 2: Smart Systems 1**

**Session Chairs:** Mislav Grgić, Snježana Rimac-Drlje

**Renato Ivče, Astrid Zekić, Đani Mohović; CROATIA**

Comparison CO2 Emissions for Road and Sea Transport on the Specific Route

**Beverin Ana, Mandić Lidija, Agić Ana; CROATIA**

Interactive Postcard of Zadar

**Fran Dudaković, Marin Maškarin, Vjekoslav Matečić, Lucija Raženj, Željka Car, Ivana Rašan, Matea Žilak; CROATIA**

Learning Colors - Application for Children with Developmental Disabilities

**Irina Makarova, Ksenia Shubenkova, Angelina Bagateeva, Anton Pashkevich; ESTONIA / RUSSIA**

Digitalization of Education as a New Destination of E-Learning

19:00      **WELCOME COCKTAIL**

Meeting Point: Hotel "Funimation", Main Entrance, 18:15

# Monday, 17 September 2018

8:30 - 16:30      **Registration**

**HALL A**

**Monday, 17 September 2018**

9:00 - 10:00      **OPENING SESSION: Welcome Speeches**

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

10:00 - 10:30      **OPENING COCKTAIL**

10:45 - 12:30      **PLENARY SESSION: Keynote Talks**

**Session Chair:**    Branka Zovko-Cihlar

**Assoc. Prof. Barbara Caputo, Ph.D., University of Rome "La Sapienza"; ITALY**  
Life long learning in computer and robot vision

**Dr Ognjen Arandjelović, School of Computer Science, University of St Andrews; UK**  
Infrared Face Recognition - New Paradigms

**Domagoj Dodig, Croatian Agency for Investments and Competitiveness; CROATIA**  
Private Sector Participation in Financing Audio Digital Infrastructure Technology DAB+

12:30 - 14:00      **Lunch Break**

14:00 - 16:30      **Workshop on DAB+**  
*\* Session will be held in Croatian language*

17:15 - 20:00      **GUIDED ZADAR SIGHTSEEING**  
Meeting Point: Hotel "Funimation", Main Entrance, 17:15

21:00                **ELMAR-2018 SYMPOSIUM GALA DINNER**  
Meeting Point: Hotel "Donat" restaurant, 21:00



14:00 - 17:00      **SPECIAL SESSION 1: Intelligent Transport Systems**

**Session Chairs: Mario Muštra, Sadko Mandžuka**

**Edouard Ivanjko, Gabriel Oliveira Melo, Krešimir Kušić, Martin Gregurić; CROATIA**  
Comparison of Controllers for Variable Speed Limit Using Realistic Traffic Scenarios

**Leo Tišljarić, Tomislav Erdelić, Tonči Carić; CROATIA**  
Analysis of Intersection Queue Lengths and Level of Service using GPS data

**Krešimir Vidović, Sadko Mandžuka, Davor Brčić; CROATIA**  
ANFIS Based Expert Systems Prototype Development for Estimation of Urban Mobility

**Alan Vogel, Izidor Oremović, Robert Šimić, Edouard Ivanjko; CROATIA**  
Improving Traffic Light Control by Means of Fuzzy Logic

**Mladen Miletić, Borna Kapusta, Edouard Ivanjko; CROATIA**  
Comparison of Two Approaches for Preemptive Traffic Light Control

**Ivana Šemanjski, Sadko Mandžuka, Sidharta Gautama; CROATIA / BELGIUM**  
Smart Mobility

17:15 - 20:00      **GUIDED ZADAR SIGHTSEEING**  
Meeting Point: Hotel "Funimation", Main Entrance, 17:15

21:00                      **ELMAR-2018 SYMPOSIUM GALA DINNER**  
Meeting Point: Hotel "Donat" restaurant, 21:00

## Tuesday, 18 September 2018

9:00 - 12:00      **Registration**

**HALL A**

**Tuesday, 18 September 2018**

9:00 - 10:30      **SESSION 3: Image and Video Processing 1**

**Session Chairs:**    **Sonja Grgić, Jarmila Pavlovičová**

**Vladan Stojnić, Vladimir Risojević; BOSNIA AND HERZEGOVINA**

Evaluation of Split-Brain Autoencoders for High-Resolution Remote Sensing Scene Classification

**Matúš Brezovský, Dominik Sopiak, Miloš Oravec; SLOVAKIA**

Action Recognition by 3D Convolutional Network

**Andrija Štajduhar, Claude Lepage, Miloš Judaš, Sven Lončarić, Alan C. Evans; CROATIA / CANADA**

3D Localization of Neurons in Bright-Field Histological Images

**Jarmila Pavlovičová, Slavomír Kajan, Martin Marko, Miloš Oravec, Veronika Kurilová; SLOVAKIA**

Bright Lesions Detection on Retinal Images by CNN

10:30 - 11:00      **Coffee Break**

11:00 - 12:30      **SESSION 4: Image and Video Processing 2**

**Session Chairs:**    Željka Car, Mario Vranješ

**Amila Jakubović, Jasmin Velagić; BOSNIA AND HERZEGOVINA**

Image Feature Matching and Object Detection using Brute-Force Matchers

**Alen Luštica; CROATIA**

Live HDR Workflow

**Martin Dziač, Vladimír Hajduk, Dušan Levický, Juraj Gazda, Gabriel Bugár;  
SLOVAKIA**

A Novel Reversible Censorship Algorithm

**Matija Pul, Mario Vranješ, Zvonimir Kaprocki, Dejan Stefanović; CROATIA / SERBIA**

Computer Generated Image Alterations Database

13:00 - 20:00

**EXCURSION BY SHIP**

Meeting Point: Hotel "Funimation", Main Entrance, 12:45

*Lunch will be served on ship*

9:00 - 10:30

**SPECIAL SESSION 2: Precise Positioning with GNSS, INS, Cameras or LPS****Session Chairs: Patrick Henkel****Michael Heinrich, Andreas Sperl, Ulrich Mittmann, Patrick Henkel; GERMANY**  
Reliable Multi-GNSS Real-Time Kinematic Positioning**Markus Lamm, Franziska Koch, Florian Appel, Patrick Henkel; GERMANY**  
Estimation of Snow Parameters with GPS and Galileo**Julius Krause, Patrick Henkel; GERMANY**  
Integration of Barometric Height into RTK Positioning for Fast Ambiguity Re-fixing**Patrick Henkel, Christoph Günther; GERMANY**  
Cascaded Real-Time Kinematic Positioning with Multi-Frequency Linear Combinations

10:30 - 11:00

**Session Break**

11:00 - 12:30

**SPECIAL SESSION 3: Radar Systems****Session Chairs: Jan Pidanič, Winton Afrić****Tomáš Zálabský, Tomáš Hnilička; CZECH REPUBLIC**  
Suppression of Ambiguity of Phase Interferometer with Extended First Base**Tomáš Hnilička, Tomáš Zálabský; CZECH REPUBLIC**  
Analysis and Design of an Antenna Array with a Cosecant Radiation Pattern based on the SIW Structure**Jaroslav Marek, Jan Pidanič, Karel Juryca; CZECH REPUBLIC**  
The Estimation of the Transmitter's Coordinates and its Uncertainty**Vladimir Brazda, Michal Mandlik, Christian Sturm, Stefan Görner, Urs Lübbert; CZECH REPUBLIC / GERMANY**  
Automotive Radar Sensor - Wave Propagation Issues and Their Mitigation

13:00 - 20:00

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

## Wednesday, 19 September 2018

9:00 - 14:30      **Registration**

**HALL A**

**Wednesday, 19 September 2018**

9:00 - 10:30      **SESSION 5: Speech and Audio Processing**

**Session Chairs:**    **Gregor Rozinaj, Irena Galić**

**Andrei Gaiță, Georgian Nicolae, Anamaria Rădoi, Corneliu Burileanu; ROMANIA**  
Chainsaw Sound Detection based on Spectral Haar Coefficients

**Boris Puterka, Juraj Kacur; SLOVAKIA**  
Time Window Analysis for Automatic Speech Emotion Recognition

**Nicoletta Saulig, Darko Etinger, Željka Milanović; CROATIA**  
Analysis of Entropy-Based Denoising Algorithm's Performance on Signals in Colored Noise Environments

**Matus Pleva, Yuan-Fu Liao, Wuhua Hsu, Daniel Hladek, Jan Stas, Peter Vizslay, Martin Lojka, Jozef Juhar; SLOVAKIA / TAIWAN**  
Towards Slovak-English-Mandarin Speech Recognition Using Deep Learning

10:30 - 11:00      **Coffee Break**

11:00 - 12:30      **SESSION 7: Image and Video Processing 3**

**Session Chairs:**    **Slobodan Ribarić, Miloš Oravec**

**Dominik Sopiak, Zuzana Bukovčiková, Miloš Oravec, Jarmila Pavlovičová; SLOVAKIA**  
The Analysis of Quality Indicators on Face Recognition in Video Frames

**Martin Soldić, Darijan Marčetić, Slobodan Ribarić; CROATIA**  
A Robust Online Multi-Face Tracking System

**Ismail Baxhaku, Snježana Rimac-Drlje, Desai Shahu; CROATIA / ALBANIA**  
Video Quality testing for Skype and Viber over 4G Mobile Network

**Adam Polakovič, Radoslav Vargic, Gregor Rozinaj, Gabriel-Miro Muntean; SLOVAKIA / IRELAND**  
An Approach to Video Compression Using Saliency Based Foveation

12:30 - 14:00      **Lunch Break**

14:00 - 15:00

**SESSION 9: Navigation Systems**

**Session Chairs:** Tomislav Kos, Jasmin Velagić

**Marija Čokrić, Kinga Wezka, Roman Galas, Mainul M. Hoque, Norbert Jakowski, Volker Wilken, Josip Vuković; GERMANY / CROATIA**

Performance Comparison of Selected Ionospheric Models for GNSS Positioning

**Nenad Sikirica, Darko Špoljar, Bola Lawon, Babatunde Rabi; CROATIA / NIGERIA**

Impact of Geomagnetic Storm on GPS Positioning Performance

**Anel Kasić, Jasmin Velagić, Adnan Osmanović; BOSNIA AND HERZEGOVINA**

Design of NMPC-Based Framework for Mobile Robot Motion in Unstructured Environments

15:15

**CLOSING SESSION**

9:00 - 10:30

**SESSION 6: Wireless Communications****Session Chairs:** Krešimir Šakić, Josip Vuković**Sergiu-Alex Ranga, Botond Sandor Kirei, Marina Dana Topa; ROMANIA**

An Equivalent Circuit for Flying-Adder Frequency Synthesizer and Its VHDL Implementation

**Ana Katalinić Mucalo, Radovan Zentner, Nikola Mataga; CROATIA**

Perspectives of Geometry Based Deterministic Reference Channel Models for 5G Applications

**Fidel Krasniqi, Arianit Maraj, Emin Blaka; REPUBLIC OF KOSOVO**

Performance Analysis of Mobile 4G/LTE Networks

**Krešimir Šakić, Krešimir Mazor, Ana Katalinić Mucalo, Ante Milas; CROATIA**

Preparations for the Second Digital Dividend in Croatia

10:30 - 11:00

**Session Break**

11:00 - 12:30

**SESSION 8: Smart Systems 2****Session Chairs:** Lidija Mandić, Ivan Kotuliak**Ján Staš, Daniel Hládek, Martin Lojka, Jozef Juhár; SLOVAKIA**

Dual-Space Re-ranking Model for Efficient Document Retrieval, User Modeling and Adaptation

**Kristián Košťál, Tomáš Krupa, Martin Gembec, Igor Vereš, Michal Ries, Ivan Kotuliak; SLOVAKIA**

On Transition between PoW and PoS

**Srećko Kunić, Zoran Šego; CROATIA**

Analysis of Television Technology Transformation from SDI to IP Production

12:30 - 14:00

**Lunch Break**

14:00 - 15:00

**SESSION 10: Antennas and Propagation**

**Session Chairs:** Davor Bonefačić, Jelena Božek

**Alexey A. Erokhin, Yury P. Salomatov, Evgeniy R. Gafarov, Victor N. Ushakov; RUSSIA**

Simple Pre-Steering Constraints for Wideband LCMV-beamformer

**Yury V. Yukhanov, Tatiana Y. Privalova, Egor E. Privalov; RUSSIA**

Synthesis of the Reflector in the Form of a Dense Array of Parallel Reactance Bands

**Davor Bonefačić, Juraj Bartolić, Branimir Ivšić; CROATIA**

Influence of Moisture and Waterproofing on Textile Antennas

15:15

**CLOSING SESSION**