

# ELMAR-2005 PROGRAMME

**Wednesday, 08 June 2005**

08:00 - 11:00 <b>Registration</b>		
<b>HALL A</b>		
08:45 - 09:45 <b>Opening Ceremony, Welcome Speeches, Keynote Speech</b>		
09:45 - 10:00 <b>Welcome Cocktail</b>		
10:00 - 11:00 <b>PLENARY SESSION</b>		
11:00 - 11:15 <b>Coffee Break</b>		
<b>HALL A</b>	<b>HALL B</b>	<b>HALL C</b>
11:15 - 12:45 <b>SESSION:</b> <b>Image and Video Processing - 1</b>	11:15 - 12:45 <b>SESSION:</b> <b>Multimedia Syst. and Tech. - 1</b>	11:15 - 12:45 <b>SESSION:</b> <b>Multimedia Applications</b>
12:45 - 14:15 <b>Lunch Break</b>		
14:30 - 16:00 <b>SESSION:</b> <b>Image and Video Processing - 2</b>	14:30 - 16:00 <b>SESSION:</b> <b>Digital Video Broadcasting (DVB)</b>	14:30 - 16:00 <b>SESSION:</b> <b>Navigation Syst. &amp; Sea Ecology</b>
16:30 - 20:00 <b>GUIDED ZADAR SIGHTSEEING, MUSEUM, CONCERT IN CHURCH</b> <u>Meeting Point:</u> Hotel "Donat", Main Entrance, 16:30		

# ELMAR-2005 PROGRAMME

**Thursday, 09 June 2005**

HALL A		
08:30 - 09:15 <b>PLENARY SESSION</b>		
09:15 - 09:30 <b>Coffee Break</b>		
HALL A	HALL B	HALL C
09:30 - 11:30 <b>SESSION:</b> <b>Image and Video Processing - 3</b>	09:30 - 11:30 <b>SESSION:</b> <b>Multimedia Syst. and Tech. - 2</b>	09:30 - 11:30 <b>SESSION:</b> <b>Wireless Communications</b>
12:00 - 22:00 <b>EXCURSION BY SHIP</b> (lunch & dinner included) <u>Meeting Point:</u> Hotel "Donat", Main Entrance, 12:00		

**Friday, 10 June 2005**

HALL A	HALL B	HALL C
08:30 - 11:00 <b>SESSION:</b> <b>Radiocommunications - 1</b>	09:00 - 11:00 <b>SESSION:</b> <b>Speech and Audio Processing - 1</b>	09:00 - 11:00 <b>SESSION:</b> <b>Ship Electronic Systems &amp; Power Electronics and Automation</b>
11:00 - 11:15 <b>Coffee Break</b>		
11:15 - 12:45 <b>SESSION:</b> <b>Radiocommunications - 2</b>	11:15 - 12:45 <b>SESSION:</b> <b>Speech and Audio Processing - 2</b>	

## Wednesday, 08 June 2005

08:00-11:00      **Registration**

**HALL A**

**Wednesday, 08 June 2005**

08:45-09:45      **Opening Ceremony, Welcome Speeches**

09:30-09:45      **Keynote Speech**

**Kalman Žiha, Nikola Ružinski, Darko Bandula; CROATIA**

Building a Multipurpose Boat for Adriatics

09:45-10:00      **Welcome Cocktail**

10:00-11:00      **PLENARY SESSION**

Session Chair:      **Sonja Grgić**

**Prof. Mohammed Ghanbari, UNITED KINGDOM**

Video over mobile networks

**Prof. Luis Torres, SPAIN**

Face recognition: The problems, the challenges and the proposals

11:00-11:15      **Coffee Break**

11:15-12:45      **SESSION: Image and Video Processing - 1**

Session Chair:      **Panos Liatsis**

**Maria Trujillo, Ebroul Izquierdo; UNITED KINGDOM**

Combining K-Means and Semivariogram-Based Grid Clustering

**Panos Liatsis, Panagiotis Kantartzis; UNITED KINGDOM**

Real-time Colour Segmentation and Autofocus in Retinal Images

**Martin Brežňan, Rudolf Hronec; SLOVAKIA**

Reconstruction of 3-D Image from Stereo Pictures

**Tudor Barbu; ROMANIA**

Content-based Video Recognition Technique Using a Nonlinear Metric

**Balázs Enyedi, Lajos Konyha, Kálmán Fazekas; HUNGARY**

Threshold Procedures and Image Segmentation

**L. Mandić, S. Grgić, T. Kos; CROATIA**

Image matching between hard and soft copies under different viewing conditions

12:45-14:15      **Lunch Break**

14:30-16:00

**SESSION: Image and Video Processing - 2**

Session Chair: **Mohammed Ghanbari**

**Yair Moshe, Nimrod Peleg; ISRAEL**

Implementations of H.264/AVC Baseline Decoder on Different Digital Signal Processors

**Daniele Alfonso, Daniele Bagni, Daniele Moglia; ITALY**

Bi-directionally motion-compensated frame-rate up-conversion for H.264/AVC decoders

**Yo-Han Lim, Kyeong-Yuk Min, Jong-Wha Chong; KOREA**

An Efficient Architecture of Deblocking Filter in H.264/AVC for Real-Time Video Processing

**Franco Chiaraluce, Lorenzo Ciccarelli, Ennio Gambi, Susanna Spinsante; ITALY**

On the efficiency of error concealment techniques in H.264/AVC coders

**Xavi Artigas, Luis Torres; SPAIN**

Improved signal reconstruction and return channel suppression in Distributed Video Coding systems

**D. Heric, D. Zazula; SLOVENIA**

Modulus Maximum Image Energy using Maximum Entropy

**Tomaž Romih, Matej Kseneman; SLOVENIA**

Application of the Color Segmentation using Chromaticity Diagram for Vehicle Marking Table Detection

16:30-20:00

**GUIDED ZADAR SIGHTSEEING, MUSEUM, CONCERT IN CHURCH**  
Meeting Point: Hotel "Donat", Main Entrance, 16:30

11:15-12:45

**SESSION: Multimedia Systems and Technologies - 1**Session Chair: **Stamatis Voliotis****Sangoh Jeong, Kihyun Hong, Chee Sun Won; USA / KOREA**

Dual Detection of Watermarks Embedded in the DCT Domain

**Dragan Zjalić, Marko Aralica, Mario Pavlović; CROATIA**

Real Time Charging Negotiator (RTCN)

**Theodore Zahariadis, Stamatis Voliotis, Christos Manasis, Nikos Zervos; GREECE**

Re-configurable Video Transcoding Platform

**D. Kolarić, K. Skala, A. Dubravić; CROATIA**

Remote Control and Measurement of Temperature over the Web

**Yu-Kuen Ho, Mei-Yi Wu, Jia-Hong Lee; TAIWAN, R.O.C.**

Palette-Based Image Protection via Shape Self-Similar Subdivision

**M.N. Bojnordi, M.R. Hashemi, S.O. Fatemi; IRAN**

Implementing an Efficient Encryption Block for MPEG Video Streams

**Allam Mousa; PALESTINE**

Data Encryption Performance Based on Blowfish

12:45-14:15

**Lunch Break**

14:30-16:00

**SESSION: Digital Video Broadcasting (DVB)**Session Chair: **Branka Zovko-Cihlar****Balázs Enyedi, Lajos Konyha, Csaba Szombathy, Son Tran Minh, András Gschwindt, Kálmán Fazekas, Mihály Szokolay; HUNGARY**

Implementation of MPEG4-based transmission in DVB-T technology

**Goran Gvozden, Miran Gosta, Sonja Grgić; CROATIA**

DVB-S2 Coding Modes for Broadcasting and Unicasting

**Miran Gosta, Goran Gvozden, Branka Zovko-Cihlar; CROATIA**

Methods for Digital Terrestrial TV planning in Croatia

**Zoran Kezan, Domagoj Perčin, Branka Zovko-Cihlar; CROATIA**

Linearization methods in digital video signal transmission

**Domagoj Perčin, Zoran Kezan, Branka Zovko-Cihlar; CROATIA**

Calculation of Peak-to-Average Power Ratio in DVB-T

16:30-20:00

**GUIDED ZADAR SIGHTSEEING, MUSEUM, CONCERT IN CHURCH**Meeting Point: Hotel "Donat", Main Entrance, 16:30

11:15-12:45

**SESSION: Multimedia Applications**Session Chair: **Winton Afrić****Winton Afrić, Natalia Matošić, Romeo Svalina; CROATIA**

Voice over Digital Subscriber Line Application in Croatian Network

**Ahmad Tajuddin Samsudin, Azrol Arshad,  
Faizin Abu Bakar, Zaidi Mukthar; MALAYSIA**

Promising or Deceptive Peer-to-Peer Computing?

**K. Bačić, M. Boban, D. Defar, V. Klepac, M. Attree, A. Plant;  
CROATIA / UNITED KINGDOM**

Digital TV Outside Broadcast Vehicle:

The First Ever Croatian Women World Cup Competition

**Andrija Maricic, Hiew Pang Leang; MALAYSIA**

Biofeedback Computer Game-Based Training

12:45-14:15

**Lunch Break**

14:30-16:00

**SESSION: Navigation Systems & Sea Ecology**Session Chair: **Tomislav Kos****Ante Žuljević, Boris Antolić; CROATIA**Appearance and spread of the invasive *Caulerpa* species in the Adriatic Sea**Pavel Puričer, Pavel Kovář, Libor Seidl, František Vejražka; CZECH REPUBLIC**

GNSS Software Receiver - A Versatile Platform for Navigation Systems Signals Processing

**Tea Duplančić Leder; CROATIA**

ENC Production and Distribution in the Hydrographic Institute of the Republic of Croatia

**T.L. Grigorie, D.G. Sandu; ROMANIA**

Numerical Algorithm for Navigation in Earth's Inertial System

**Lidija Bušić, Renato Filjar, Saša Dešić; CROATIA**

Assisted Satellite Positioning

**Tomislav Kos, Mislav Grgic, Lidija Mandić; CROATIA**

GPS Modernisation and GNSS Development

16:30-20:00

**GUIDED ZADAR SIGHTSEEING, MUSEUM, CONCERT IN CHURCH**Meeting Point: Hotel "Donat", Main Entrance, 16:30

## Thursday, 09 June 2005

**HALL A**

**Thursday, 09 June 2005**

08:30-09:15 **PLENARY SESSION**

Session Chair: **Luis Torres**

**Prof. Fernando Pereira, PORTUGAL**

MPEG-21 Standard: Defining an Open Multimedia Framework

09:15-09:30 **Coffee Break**

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

Session Chair: **Sonja Grgić, Tomislav Kos**

**Linda S. Karlsson, Mårten Sjöström; SWEDEN**

A preprocessing approach to ROI Video Coding using Variable Gaussian Filters and Variance in Intensity

**Rogelio Hasimoto-Beltran, Ashfaq A. Khokhar; MEXICO / USA**

Error Concealment for Partially Damaged Blocks

**Anton Březina, Jaroslav Polec, Andrej Varchola; SLOVAKIA**

Successive Restoration of Missing Image Segments

**Tomislav Lukicic, Sonja Grgic; CROATIA**

Telecine Calibration and Image Quality Evaluation

**M. Ilicic; CROATIA**

Digital Cinema Projectors

**Le Thanh Hai, Paul Bao; SINGAPORE**

Adaptive Information-Maximized Image Fusion

**Dragoljub Pokrajac, Vesna Zeljkovic, Longin Jan Latecki; USA**

Noise-Resilient Detection of Moving Objects Based on Spatial-Temporal Blocks

**Aleš Procházka, Andrea Gavlasová, Karel Volka; CZECH REPUBLIC**

Wavelet Transform in Image Recognition

**Igor Vujović, Ivica Kuzmanić; CROATIA**

Wavelet downsampling in image compression

12:00-22:00 **EXCURSION BY SHIP (lunch & dinner included)**

Meeting Point: Hotel "Donat", Main Entrance, 12:00

09:30-11:30

**SESSION: Multimedia Systems and Technologies - 2**Session Chair: **Fernando Pereira****Martin Prangl, Christian Timmerer, Klaus Leopold, Hermann Hellwagner; AUSTRIA**  
DVB-based MPEG-21 Digital Items for Adaptive Multimedia Streaming**Martin Einhoff, Jordi Casademont, Ferran Perdrix i Sapina,  
Stefan Noll; GERMANY / SPAIN**  
ELIN: A MPEG Related News Framework**KeDai Zhang, HanQing Lu, QingShan Liu, MiYi Duan; CHINA**  
Semantic Based Video Data Modeling**Kresimir Delac, Mislav Grgic, Panos Liatsis; CROATIA / UNITED KINGDOM**  
Appearance-based Statistical Methods for Face Recognition**Franco Chichizola, Laura De Giusti, Armando De Giusti,  
Marcelo Naiouf; ARGENTINA**  
Face Recognition: Reduced Image Eigenfaces Method**Francesc Tarrés, Antonio Rama; SPAIN**  
A Novel Method for Face Recognition under partial occlusion or  
facial expression Variations

12:00-22:00

**EXCURSION BY SHIP** (lunch & dinner included)  
Meeting Point: Hotel "Donat", Main Entrance, 12:00



09:30-11:30

**SESSION: Wireless Communications**Session Chair: **Snježana Rimac-Drlje****Ervin Zentner, Sonja Zentner Pilinsky; CROATIA**

Software Radio The Best Opportunity for the Future

**Liping Sun, Guoan Bi, Liren Zhang; SINGAPORE**

Multi-stage SIC Multiuser Detection for MIMO Non-orthogonal STBC Systems

**V. Meghdadi, A. Saemi, JP. Cances, M.J. Syed, G. Ferre, JM. Dumas; FRANCE**

Improving Frequency Synchronization by means of New Correlation Criteria for Fine Time Synchronization in MIMO System

**Ivan Vilović, Branka Zovko-Cihlar; CROATIA**

WLAN Location Determination Model Based on the Artificial Neural Networks

**M. Franić, I. Sekula; CROATIA**

Simulation Model of UMTS Packet Switched Data Transfer Over UTRAN

**Adam Dabrowski, Piotr Kardys, Tomasz Marciniak; POLAND**

Bluetooth technology applications dedicated to supporting blind and hearing as well as speech handicapped people

**Snježana Rimac-Drlje, Tomislav Matić, Drago Žagar; CROATIA**

Digital Radio Mondiale (DRM) System Performances in Multipath Fading Environment

**G. Sisul, B. Modlic, M. Grgic; CROATIA**

Simulation of Fractal Modulation with Differential Encoded Data

12:00-22:00

**EXCURSION BY SHIP** (lunch & dinner included)Meeting Point: Hotel "Donat", Main Entrance, 12:00

## Friday, 10 June 2005

**HALL A**

**Friday, 10 June 2005**

08:30-11:00      **SESSION: Radiocommunications - 1**

Session Chair:      **Krešimir Malarić**

08:30-09:00

**Siniša Bakarić, Mario Borzić, Darko Bratković, Vinko Grga; CROATIA**

TETRA (Terrestrial Trunked Radio) – Technical Features and Application of Professional Communication Technologies in Mobile Digital Radio Networks for Special Purpose Services

09:00-11:00

**J.D. Angelopoulos, H.C. Leligou, K. Kanonakis, H. Linardakis, I. Pountourakis, A. Stavdas; GREECE**

Slot reservations for lossless Optical Burst Switching

**Ida Srdić, Branka Zovko-Cihlar; CROATIA**

Generating a model for optical code division multiple access methods evaluation

**H.C. Leligou, K. Kanonakis, Th. Orphanoudakis, J.D. Angelopoulos; GREECE**

Traffic aggregation for slotted OBS systems

**Tomica Robić, Boris Kviz; CROATIA**

Tunable Optical Filters in 40 Gbps DWDM Systems

**Bartosz Ziolko, Mariusz Ziolko, Michal Nowak, Przemyslaw Sypka; POLAND**

A Suggestion of Multiple-Access Method for 4G-System

**Srećko Krile, Davor Bonačić; CROATIA**

New Generation of Satellites and Optimal Capacity Planning

**Balázs Héder, Gábor Szládek, János Bitó; HUNGARY**

Route diversity examination in BFWA systems

**Vitomir Šeba, Borivoj Modlic; CROATIA**

Multiple Access Techniques for Future Generation Mobile Networks

11:00-11:15      **Coffee Break**

11:15-12:45

**SESSION: Radiocommunications - 2**

Session Chair: **Srećko Krile**

**Shkelzen Cakaj, Werner Keim, Krešimir Malarić; KOSOVO / AUSTRIA / CROATIA**  
Sun Noise Measurement at Low Earth Orbiting Satellite Ground Station

**Luka Škacanj, Krešimir Malarić; CROATIA**  
Radiation effects on human operators of hand-held radios

**Vlasta Sertić, Krešimir Malarić; CROATIA**  
EMI protection and EMC antennas

**Balázs Héder, Róbert Singliar, János Bitó; HUNGARY**  
Site Diversity Examination based on Rain Attenuation Measurement

**Marko Vujić, Antonio Šarolić, Borivoj Modlic; CROATIA**  
Shipboard Radiation Hazards - INMARSAT Ship Earth Station

**Mladen Golubic; CROATIA**  
Two Transmitter AM Antenna System Influence on DRM Signal

09:00-11:00            **SESSION: Speech and Audio Processing - 1**

Session Chair:        **Lidija Mandić**

**Rully Adrian Santosa, Paul Bao; SINGAPORE**

Audio-to-Image Wavelet Transform based Audio Steganography

**Jerneja Žganec Gros, Aleš Mihelič, Nikola Pavešić, Mario Žganec,  
Stanislav Gruden; SLOVENIA**

AlpSynth - Concatenation-based Speech Synthesis for the Slovenian Language

**Norbert Toma, Marina Țopa, Erwin Szopos; ROMANIA**

On Improved Reverberation Algorithms

**Arijit Biswas, Albertus C. den Brinker; THE NETHERLANDS**

Stability of the Stereo Linear Prediction Schemes

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

11:15-12:45            **SESSION: Speech and Audio Processing - 2**

Session Chair:        **Lidija Mandić**

**Gregor Heinrich; GERMANY**

Speech identification using a sequence-based heuristic

**Phuay Hui Low, Saeed Vaseghi; UNITED KINGDOM**

Applying  $F_0$ , Duration and Power Models with Microprosody Components in  
Text to Speech (TTS) Synthesis

**Mikel Gainza, Bob Lawlor, Eugene Coyle; IRELAND**

Multi pitch estimation by using modified IIR Comb Filters

**I. Gavat, O. Dumitru, C. Iancu, G. Costache; ROMANIA**

Learning Strategies in Speech Recognition

**H. Brouckxon, W. Verhelst, K. Struyve, P. Verhoeve; BELGIUM**

Design and Evaluation of a Microphone Signal Conditioning System

09:00-11:00

**SESSION:  
Ship Electronic Systems & Power Electronics and Automation**Session Chair: **Jakov Kitarović****Vinko Tomas, Jakov Kitarovic, Radovan Antonic; CROATIA**  
The trends in integrated control and monitoring systems for ships**Ivica Kuzmanić, Zlatan Kulenović, Igor Vujović; CROATIA**  
Force Measurement Electronic and Electrical Instrumentation**A. Kraš, J. Sušanj; CROATIA**  
Maintainability Design of Ship Electronic System**Jakov Kitarović, Vinko Tomas, Dragan Čišić; CROATIA**  
The electronic and informatics age - a new stage in developing highly effective ships**Pavel Cukrov; CROATIA**  
Ships and ports security code came into effect**Zlatan Kulenović; CROATIA**  
Stress Concentration in an Element of Ship's Electromagnetic Pump**Xiaoping Zhu, Steve Adzanu, Krunoslav Horvat, Ognjen Kuljaca; USA / CROATIA**  
Stability Analysis of SISO Fuzzy Controller**Boris Bizjak, Peter Planinšič; SLOVENIA**  
Increasing Power Quality in Systems with Limited Power Sources