

ELMAR-2004 PRELIMINARY PROGRAMME

Wednesday, 16 June 2004

08:00 - 09:00 **Registration**

HALL A		
09:00 - 09:30 Opening Ceremony		
09:30 - 10:00 Welcome Cocktail		
10:00 - 11:00 ELMAR-2004: KEYNOTE SPEAKERS		
11:00 - 13:40 ELMAR-2004: INVITED SPEAKERS		
13:40 - 14:30 Lunch Break		
HALL A	HALL B	HALL C
14:30 - 16:15 SESSION A-1	14:30 - 16:15 SESSION B-1	14:30 - 16:15 SESSION C-1
16:15 - 16:30 Coffee Break		
16:30 - 18:15 SESSION A-2	16:30 - 18:15 SESSION B-2	16:30 - 18:15 SESSION C-2
18:15 - 19:30 PRESENTATIONS		
20:00 Dinner		

Thursday, 17 June 2004

08:00 - 09:00 **Registration**

HALL A	HALL B	HALL C
09:00 - 10:45 SESSION A-3	09:00 - 10:45 SESSION B-3	09:00 - 10:45 SESSION C-3
11:30 - 21:00 EXCURSION BY SHIP + LUNCH <u>Meeting Point:</u> Hotel "Donat", Main Entrance, 11:30		

Friday, 18 June 2004

08:00 - 09:00 **Registration**

HALL A	HALL B
09:00 - 10:45 SESSION A-4	09:00 - 10:45 SESSION B-4
10:45 - 11:00 Coffee Break	
11:00 - 12:45 SESSION A-5	11:00 - 12:45 SESSION B-5
	13:00 - 14:00 ELMAR Society Annual Meeting (for ELMAR Society members only)

Wednesday, 16 June 2004

08:00-09:00 **Registration**

HALL A

Wednesday, 16 June 2004

09:00-09:30 **Opening Ceremony, Welcome Speeches**

09:30-10:00 **Welcome Cocktail**

10:00-11:00 **ELMAR-2004 Symposium: KEYNOTE SPEAKERS**

Session Chair: **Kálmán Fazekas, Pavol Podhradský**

David Broughton, Director of the Royal Institute of Navigation, UNITED KINGDOM
GNSS - a Users' Perspective in 2010

Farhad Mafie, President and CEO of Savant Company Inc., USA
New Engines for Complex Multimedia and GPS Applications

Paul Flament, European Commission, DG Transport and Energy, BELGIUM
Galileo, a New Dimension in International Satellite Navigation

11:00-13:40 **ELMAR-2004 Symposium: INVITED SPEAKERS**

Session Chair: **Žarko Čučej, Miro Milanovič**

Frantisek Vejrazka, Czech Technical University in Prague, CZECH REPUBLIC
Present Satellite Radio Navigation Systems,
their Performance and User Receiver Concepts

Wasył Wasyłkiwskyj, The George Washington University, USA
Estimation of Range and Bearing of RF Emitters Using Direction-of-Arrival Data

Kalman Fazekas, Budapest University of Technology and Economics, HUNGARY
A Survey on the Interactivity Feature of MPEG-4

Pavol Podhradsky, Slovak Univ. of Technology in Bratislava, SLOVAK REPUBLIC
Migration Scenarios and Convergence Processes Towards NGN
(Present State and Future Trends)

Miro Milanovič, Rudi Prosen, University of Maribor, SLOVENIA
The Three-Phase Rectifier Operation Under the Non-Rigid Network

Žarko Čučej, Dušan Gleich, Mihael Kaiser, Peter Planinšič,
University of Maribor, SLOVENIA
Industrial Networks

Ebroul Izquierdo, Queen Mary, University of London, UNITED KINGDOM
A Technique for Secure Image Authentication

Branka Zovko-Cihlar, University of Zagreb, CROATIA
Digital Video Broadcast Planning in Croatia

13:40-14:30 **Lunch Break**

14:30-16:15 **ELMAR-2004 Symposium: SESSION A-1**

Session Chair: **Josip Kasum**

U. Guida, F. Martinino, G. Corini, ITALY
Enabling Technologies for Maritime Navigation

Ryszard Wawruch, POLAND
Quality of Information About Tracked Vessel in VTS Centre

A. R. Jiménez, R. Ceres, F. Seco, SPAIN
A Laser Range-Finder Scanner System for Precise Maneuver
and Obstacle Avoidance in Maritime and Inland Navigation

Josip Kasum, Toni Bielić, Nikola Račić, CROATIA
Hydrographic Organizations and Safety of Navigation

Josip Kasum, Zlatimir Bićanić, Mirko Bilić, CROATIA
Work Processes and Directions of Development
of Marine Charts and Navigational Publications

Ivana Racetin, CROATIA
Navigational Electronic Chart Systems

Ivica Ružić, Jadranka Pečar-Ilić, Zoran Ereš, CROATIA
Transformation of the Croatian National Navigation Chart
for the Danube River into WGS-84 Compatible Systems

16:15-16:30 **Coffee Break**

16:30-18:15 **ELMAR-2004 Symposium: SESSION A-2**

Session Chair: **Klaus Aichhorn**

**Reinhard Pfliegl, Marko Jandrisits, Bernhard Hofmann-Wellenhof,
Klaus Aichhorn, Günther Abwerzger, AUSTRIA**
Introduction of EGNOS in River Information Services

Damir Obad, Željana Bošnjak Cihlar, CROATIA
Benefits of Automatic Identification System Within
Framework of River Information Services

Cezary Specht, POLAND
DGPS Reference Station Availability Simulation-Analytical Method

Amir Averbuch, Alon Schclar, ISRAEL
A Real-Time Algorithm for Vision-Based Localization

Christophe Bonnet, FRANCE
EGNOS broadcasting over RDS

18:15-19:30 **ELMAR-2004 Symposium: PRESENTATIONS**

18:15-18:30 **Presentation of the University Book**

Srećko Krile, University of Dubrovnik, CROATIA

Elektroničke komunikacije u pomorstvu - Mobilne satelitske veze

Reviewers: Borivoj Modlic, Davor Bonačić

20:00 **Dinner**

14:30-16:15 **ELMAR-2004 Symposium: SESSION B-1**

Session Chair: **Pavol Podhradský**

Ján Turán, Ľuboš Ovseník, Ján Turán, jr., Kálmán Fazekas,

SLOVAK REPUBLIC / GERMANY / HUNGARY

Design Web-Controlled Multimedia Laboratory

Dragan Zjalić, Mario Pavlović, Marko Aralica, CROATIA

Stream Control Transport Protocol (SCTP)

Pavel Hofírek, Miloslav Filka, CZECH REPUBLIC

Model of Computing Parameters of Access Network

Igor Ozimek, Srečo Plevel, Aljoša Rojec, Roman Trobec, SLOVENIA

Powerline Communication Switch

Romeo Svalina, Natalia Matošić, Winton Afrić, CROATIA

Interferences on the Twisted Pair in the Employment of the XDSL System

Antal Mihályi, HUNGARY

Optimizing Peer-To-Peer Networks Using Mobile Agents

16:15-16:30 **Coffee Break**

16:30-18:15 **ELMAR-2004 Symposium: SESSION B-2**

Session Chair: **Dragoljub Milatović**

Radovan Zentner, Robert Nagy, CROATIA

The Potentials and Challenges of MIMO Channel

Utilisation in Mobile Communication Systems

Goran Jurković, Mario Žagar, CROATIA

GSM Wireless Solutions in Distributed Embedded

Systems Designed for Automatic Control

Mario Medved, Alberto Teković, CROATIA
Extended Range Functionality for GSM Networks

Draško Marin, Miro Vidoš, CROATIA
Installation of the Satellite System for Data Transmission on the Sailing-Vessel

Davor Bonačić, Branka Zovko-Cihlar, Tomislav Kos, CROATIA
Comparison of ISDN and MPDS Communication Modes via Inmarsat Fleet Services

Matija Šorman, Tomislav Kovač, Damir Maurović, CROATIA
Implementing Improved WLAN Security

Ivan Vilovic, Branka Zovko-Cihlar, CROATIA
Performance Analysis of Wireless Network Using Bluetooth and IEEE 802.11 Devices

Peter Trúchly, SLOVAK REPUBLIC
New Interleaving Method Improving Wireless ATM Performance

20:00 **Dinner**

HALL C **Wednesday, 16 June 2004**

14:30-16:15 **ELMAR-2004 Symposium: SESSION C-1**

Session Chair: **Kosta Ugrinović**

Kosta Ugrinovic, Olivera Pionic, CROATIA
An Outline of the Passive Sonar Signal Detection

Branko Somek, Martin Dadic, Vinko Pinezic, CROATIA
Acoustical Measurements Using Hilbert Transform

Irena Brkić, Kristian Jambrošić, Bojan Ivančević, CROATIA
Perception of Sound by Animals in the Ocean

Matea Filipović, Davor Crnogorac, Siniša Fajt, CROATIA
Hearing Problems Treated with Hearing Aids and Cochlear Implants

Tomislav Grubeša, Sanja Jauk, Bojan Ivančević, CROATIA
Simulation of Virtual 3D Auditory Space With HRTF

Danijel Periša, Bojan Ivančević, Kristian Jambrošić, CROATIA
Sound Localization

Sanja Jauk, Tomislav Grubeša, Hrvoje Domitrović, CROATIA
Virtual Sources Method for Simulation of Indoor Acoustics

16:15-16:30 **Coffee Break**

16:30-18:15

ELMAR-2004 Symposium: SESSION C-2

Session Chair: **Gregor Rozinaj**

Marjan Sikora, CROATIA

Algorithms for Simulation of Sound and Ultrasound Propagation
in Complex Dispersive Environments

Antonio Petosic, Bojan Ivancevic, Marko Horvat, CROATIA

Modelling Ultrasound Fields with Linear Array Transducers

Marko Horvat, Hrvoje Domitrovic, Antonio Petosic, CROATIA

Linear Arrays with Polynomial Phase Distribution

Branko Somek, Josip Herceg, Mladen Maletić, CROATIA

Speech Quality Assessment

Jozef Čepko, Gregor Rozinaj, SLOVAK REPUBLIC

Corpus Synthesis of Slovak Speech

Juraj Vojtko, Gregor Rozinaj, SLOVAK REPUBLIC

Automatic Phoneme Detection Using CLPC

Karlo Bruci, Marko Horvat, Hrvoje Domitrovic, CROATIA

Acoustical Damping in Automobile Acoustics

20:00

Dinner

Thursday, 17 June 2004

08:00-09:00 **Registration**

HALL A

Thursday, 17 June 2004

09:00-10:45 **ELMAR-2004 Symposium: SESSION A-3**

Session Chair: **Renato Filjar**

Renato Filjar, Saša Dešić, CROATIA

Architecture of the Automatic Position Reporting System (APRS)

Fabio Dovis, Letizia Lo Presti, Marco Pini, Massimiliano Spelat, ITALY

A Modular Architecture for the Real-Time Reconfigurability of GNSS Receivers

Davor Virkes, Karmen Nenadić, Diana Zerec Virkes, CROATIA

Positioning Systems for Mobility of the Blind, Overview and Analysis

Ivica Ćubić, CROATIA

GSM Positioning Performance on Fixed Trajectory

Nikos Katevas, Stamatis Voliotis, Theodore Zahariadis, Kostas Hrissagis, GREECE

Range Histogram: An Environment Representation Method
for In-Door Navigation of Mobile Robots

Tadeusz Stupak, POLAND

Investigation of Video Marine Radar Signal

Pavel Cukrov, CROATIA

Moving Target Indication

11:30-21:00 **EXCURSION BY SHIP + LUNCH**

Meeting Point: Hotel "Donat", Main Entrance, 11:30

HALL B

Thursday, 17 June 2004

09:00-10:45 **ELMAR-2004 Symposium: SESSION B-3**

Session Chair: **Ervin Zentner**

M. Hadžialić, R. Zilić, I. Kostić, N. Behlilović, BOSNIA AND HERZEGOVINA

Envelope Probability Density Function of Statistically Variable Fast Fading and Slow Fading

Ervin Zentner, Radovan Zentner, CROATIA

Smart Transmitting Antenna Arrays for Multipath Interference Reduction

Antonio Šarolić, CROATIA

A Review of Maritime Navigation and Radiocommunication
Equipment and Systems Standardization

Predrag Valožić, CROATIA

Demodulation of a Burst Sampled FM Signal

Hrvoje Sertić, Renato Filjar, Željka Požgaj, CROATIA
Efficient Software Development Organisation Based on Unified Process

Ivan Pavicic, Ivancica Trosic, CROATIA
Influence of 864 MHz Electromagnetic Field
on Growth Kinetics of Established Cell Line

Otto Dostál, Miloslav Filka, Martin Petrenko, CZECH REPUBLIC
New Possibilities of Multimedia Applications in Medicine

Andrija Maricic, Hiew Pang Leang, Olga Lazareva, Jan Campbell, MALAYSIA
Cloning Biofeedback Games

11:30-21:00 **EXCURSION BY SHIP + LUNCH**
Meeting Point: Hotel "Donat", Main Entrance, 11:30

HALL C **Thursday, 17 June 2004**

09:00-10:45 **ELMAR-2004 Symposium: SESSION C-3**

Session Chair: **Krzysztof Wajda**

Venco Čorluka, Mirko Filić, Mirko Mesić, Zdravko Valter, CROATIA
Near Infrared Based Moisture Meter

Ivan Kotuliak, SLOVAK REPUBLIC
Optical Networks Access Node Performance

Krzysztof Wajda, Krzysztof Zaraska, POLAND
Low-Cost Measurement Concept for Ethernet Traffic

Jan Derkacz, Mirosław Kantor, POLAND
Routing Issues in Intelligent Optical Networks

Igor Feketija, Saša Čalušić, Dušan Bogdanović, CROATIA
Prepaid Interface Protocol Service (PIPS)

Róbert Simon, Sándor Imre, HUNGARY
Resource Management in Software Radio Environment

K. Bačić, M. Boban, D. Defar, V. Klepac, M. Attree, H. Balaško, CROATIA, UK
Digital TV Outside Broadcast Vehicle

Lidija Mandic, Sonja Grgic, Mislav Grgic, CROATIA
The Influence of Color Temperature on the Monitor Gamut

11:30-21:00 **EXCURSION BY SHIP + LUNCH**
Meeting Point: Hotel "Donat", Main Entrance, 11:30

Friday, 18 June 2004

08:00-09:00 **Registration**

HALL A

Friday, 18 June 2004

09:00-10:45 **ELMAR-2004 Symposium: SESSION A-4**

Session Chair: **Stipe Belak**

Vlado Dadić, Damir Ivanković, Ivo Šerić, CROATIA

New Capabilities of the Automatic System for Monitoring of Marine Environment (AMOS)

Srećko Krile, CROATIA

Application of the Minimum Cost Flow Problem in Container Shipping

Stipe Belak, CROATIA

The Ship Hull Points Angles of Inclination Calculation

Zlatan Kulenović, Zdeslav Jurić, CROATIA

Motion Analysis of Ships Hydraulic System Back Pressure Spring Valve

A.M. Prokhorenkov, I.V. Saburov, A.S. Sovlukov, RUSSIA

Determination of Marine Drilling Rigs Stability Items
for their Efficient Exploitation and Safe Tow

Maja Krcum, Anita Gudelj, Zdeslav Juric, CROATIA

Fuel Cells for Marine Application

Marijo Nižetić, Marko Pešić, CROATIA

Managing with Abstract Telecommunication Entities

10:45-11:00 **Coffee Break**

11:00-12:45 **ELMAR-2004 Symposium: SESSION A-5**

Session Chair: **Winton Afrić**

Igor Vujović, Ivica Kuzmanić, Zlatan Kulenović, CROATIA

New Ceramic Pressure Sensors

Silvi Kolarić, CROATIA

Electronic Design Automation Advanced Methods and Techniques
in Submicron Multimilliongates Designs - An Overview

Damir Kovačić, Krešimir Malarić, Tomislav Mlinac, CROATIA

Measurement of Mobile Phone Radiation in Respect to Human Exposure Standards

Slavica M. Perovich, Sanja Bauk, Igor Djurovic, SERBIA AND MONTENEGRO

Calculating Conductive Fluid High Level with Special Trans Function Theory

Sanja Bauk, Ruža Danilović, SERBIA AND MONTENEGRO

Central Electronic Library Catalogue - A New Educational
Approach at Kotor Maritime Faculty

Adriana Manea, Laurentiu Manea, Anna Nocivin, Venetia Sandu, ROMANIA

Studies of the Destruction Causes due to the Structure of a Four Stroke
Naval Diesel Engine Cylinder's Material Affected by Cavitation

HALL B

Friday, 18 June 2004

09:00-10:45 **ELMAR-2004 Symposium: SESSION B-4**

Session Chair: **Rastislav Lukac**

Ashfaqur Rahman, Manzur Murshed, Laurence S. Dooley, AUSTRALIA

Temporal Texture Characterization for Block-Based Video Indexing

Rastislav Lukac, Konstantinos N. Plataniotis, CANADA

An Efficient CFA Interpolation Solution

Rastislav Lukac, Konstantinos N. Plataniotis, CANADA

A Secret Sharing Scheme for Image Encryption

Rastislav Lukac, Konstantinos N. Plataniotis, CANADA

Bayer CFA Image Zooming Using a Normalized Color-Ratio Model

Jaydeep Lakkad, Jayanta Kumar Ghosh, INDIA

Fractal Feature for Land Use Class of Satellite Images

10:45-11:00 **Coffee Break**

11:00-12:45 **ELMAR-2004 Symposium: SESSION B-5**

Session Chair: **Kálmán Fazekas**

Damir Novosel, Mario Kovač, CROATIA

Still Image Compression Analysis

Damir Novosel, Mario Kovač, CROATIA

JPEG2000 Software Implementation

Balázs Enyedi, Lajos Konyha, Csaba Szombathy, Kálmán Fazekas, HUNGARY

Strategies for Fast License Plate Number Localization

Yu Zhao, Hanqing Lu, CHINA

LPC-Based Object Tracking in Image Processing

Marta Mrak, Nikola Sprljan, Ebroul Izquierdo, UNITED KINGDOM

An Overview of Basic Techniques Behind Scalable Video Coding

Yanling Zhao, Zhichao Zhang, Zhenming Gao, CHINA

A Simple and Workable Moving Objects Segmentation Method

13:00-14:00 **ELMAR Society Annual Meeting**
(for ELMAR Society members only)