

PROGRAMME

**44th International Symposium
Electronics in Marine**

ELMAR-2002

**4th EURASIP - IEEE Region 8
International Symposium on
Video / Image Processing and
Multimedia Communications**

VIPromCom-2002

**16-19 June 2002
Zadar, CROATIA**

ELMAR-2002 SYMPOSIUM GENERAL INFORMATION

44th International Symposium Electronics in Marine - ELMAR-2002, is organised by:

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

44th International Symposium Electronics in Marine - ELMAR-2002, takes place under the sponsorship of:

- *Ministry of Science and Technology*
- *Ministry of Maritime Affairs, Transportation
and Communications*
- *Croatian Navy (HRM)*
- *University of Zagreb*
- *Faculty of El. Eng. and Computing in Zagreb*
- *IEEE Croatia Section*
- *Ruđer Bošković Institute, Zagreb*
- *Tankerska plovidba, Zadar*
- *HT - Croatian Telecom*
- *HRT - Croatian Radiotelevision*
- *VIP-NET GSM*

44th International Symposium Electronics in Marine - ELMAR-2002 is co-sponsored by:

- *STORM Computers, Zagreb*
- *ALCATEL Croatia, Zagreb*
- *CadCam Design Centar, Zagreb*
- *CROATEL, Zagreb*
- *MICRO-LINK, Zagreb*
- *AVC - Audio-Video Consulting, Zagreb*
- *InfoNET Projekt, Zagreb*
- *LENARDIC d.o.o. Zagreb*

ELMAR-2002 SYMPOSIUM ORGANISING COMMITTEE

General Chair

Ive Mustać, Tankerska plovidba, Zadar, Croatia

Program Co-Chairs

Branka Zovko-Cihlar, University of Zagreb, Croatia

Tomislav Kos, University of Zagreb, Croatia

Organisers

Renato Filjar, Ericsson Nikola Tesla, Zagreb, Croatia

Mislav Grgić, University of Zagreb, Croatia

Sonja Grgić, University of Zagreb, Croatia

Tomislav Kos, University of Zagreb, Croatia

Zlatko Lenardić, Lenardic d.o.o., Zagreb, Croatia

Branka Medved Rogina, Rudjer Boskovic Institute, Zagreb, Croatia

Ivan Pupovac, Tankerska plovidba, Zadar, Croatia

Božidar Radanović, Brodarski Institute, Zagreb, Croatia

Karolj Skala, Rudjer Boskovic Institute, Zagreb, Croatia

Ante Tičac, Faculty of Maritime Studies, Rijeka, Croatia

ELMAR-2002 SYMPOSIUM INTERNATIONAL PROGRAMME COMMITTEE

Stanko Banić, Tankerska plovidba, Zadar, Croatia

Juraj Bartolić, University of Zagreb, Croatia

Vladimir Brlić, HT - Croatian Telecom Inc., Zagreb, Croatia

Pavel Cukrov, Croatian Navy, Split, Croatia

Žarko Čučej, University of Maribor, Slovenia

Marek Domański, Poznan University of Technology, Poland

Kálmán Fazekas, Technical University of Budapest, Hungary

Januš Filipak, ComArch S.A., Krakow, Poland

Jože Furlan, University of Ljubljana, Slovenia

Sonja Grgić, University of Zagreb, Croatia

Andy Kucar, 4U Communications Research Inc., Canada

Boris Kviz, University of Zagreb, Croatia

Gábor Mátay, Technical University of Budapest, Hungary

Pavol Podhradský, Slovak Technical University in Bratislava, Slovakia

Christel Stakkestad, Concilium Marine, Goteborg, Sweden

Rajko Svečko, University of Maribor, Slovenia

Csaba Szabo, Technical University of Budapest, Hungary

Ján Turán, Technical University of Košice, Slovakia

Branka Zovko-Cihlar, University of Zagreb, Croatia

Krzysztof Wajda, University of Mining and Metallurgy, Poland

ELMAR-2002 SYMPOSIUM INTERNATIONAL REVIEW COMMITTEE

Žarko Čučej, University of Maribor, Slovenia
Kálmán Fazekas, Technical University of Budapest, Hungary
Sonja Grgić, University of Zagreb, Croatia
Viljem Jerič, University of Zagreb, Croatia
Boris Kvizić, University of Zagreb, Croatia
Andy Kucar, 4U Communications Research Inc., Canada
Gabor Matay, Technical University of Budapest, Hungary
Borivoj Modlić, University of Zagreb, Croatia
Nedjeljko Perić, University of Zagreb, Croatia
Pavol Podhradský, Slovak Technical University in Bratislava, Slovakia
Božidar Radanović, University of Zagreb, Croatia
Christel Stakkestad, Concilium Marine, Goteborg, Sweden
Wiesław Starowicz, Politechnika Krakowska, Krakow, Poland
Ján Turán, Technical University of Košice, Slovakia
Branka Zovko-Cihlar, University of Zagreb, Croatia
Ervin Zentner, University of Zagreb, Croatia
Krzysztof Wajda, University of Mining and Metallurgy, Poland

PRESIDENCY OF THE CROATIAN SOCIETY ELECTRONICS IN MARINE - ELMAR

President: Branka Zovko-Cihlar

Vice-president: Božidar Radanović

Secretary: Viljem Jerič

Honorary members of the ELMAR Society:

Milan Goja, Petar Keržić, Vladimir Muljević, Kosta Ugrinović, Branko Vidmar

Members of the ELMAR Presidency:

Pavel Cukrov, Ante Čagalj, Sonja Grgić, Damir Gulin, Zlatko Lenardić, Branka Medved Rogina, Mateo Milković, Ivan Pupovac, Vesna Roje, Vladimir Roboz, Neven Sablić, Karolj Skala, Luciano Stefanich, Radivoj Vlah, Ante Tićac

Address: Faculty of El. Engineering and Computing
Croatian Society Electronics in Marine - ELMAR
Unska 3 / XII, HR-10000 Zagreb
CROATIA

Phone: + 385 1 6129 839

Fax: + 385 1 6129 717

E-mail: elmar@fer.hr

URL: <http://www.vcl.fer.hr/elmar/>

VIPromCom-2002 SYMPOSIUM GENERAL INFORMATION

4th EURASIP - IEEE Region 8 International Symposium on Video / Image Processing and Multimedia Communications - VIPromCom-2002, is organised by:

- *Department of Radiocommunications and Microwave Engineering,
Faculty of Electrical Engineering and Computing, University of Zagreb*
- *Control Systems Centre, Department of Electrical Engineering and Electronics,
University of Science and Technology in Manchester - UMIST, Manchester, United Kingdom*
- *Digital Signal Processing Laboratory, Department of Electrical Engineering,
University "Politehnica" of Bucharest, Romania*

4th EURASIP - IEEE Region 8 International Symposium on Video / Image Processing and Multimedia Communications - VIPromCom-2002, takes place under the sponsorship of:

- *EURASIP*
- *IEEE Region 8*
- *IEEE Croatia Section*
- *University of Zagreb*
- *Faculty of Electrical Engineering and Computing in Zagreb*

VIPromCom-2002 SYMPOSIUM ORGANISING COMMITTEE

General Chair

Branka Zovko-Cihlar, University of Zagreb, Croatia

Program Co-Chairs

Sonja Grgić, University of Zagreb, Croatia

Mislav Grgić, University of Zagreb, Croatia

Organisers

Paul Cristea, "Politehnica" University of Bucharest, Romania

Borko Furht, Florida Atlantic University, U.S.A.

Tomislav Kos, University of Zagreb, Croatia

Panos Liatsis, UMIST, United Kingdom

Marta Mrak, University of Zagreb, Croatia

Pavol Podhradský, Slovak Technical University in Bratislava, Slovakia

Snježana Rimac-Drlje, Josip Juraj Strossmayer University of Osijek, Croatia

Nikola Šprljan, University of Zagreb, Croatia

Krzysztof Wajda, University of Mining and Metallurgy, Poland

Address: Faculty of Electrical Engineering and Computing
Unska 3 / XII, HR-10000 Zagreb
CROATIA

Phone: + 385 1 6129 839

Fax: + 385 1 6129 717

E-mail: vip@fer.hr

URL: <http://www.vcl.fer.hr/vip/>

VIPromCom-2002 SYMPOSIUM INTERNATIONAL PROGRAMME COMMITTEE

Hocine Cherifi, University of Bourgogne, France
Paul Cristea, "Politehnica" University of Bucharest, Romania
Žarko Čučej, University of Maribor, Slovenia
Anthony Davies, King's College London, United Kingdom
Marek Domański, Poznan University of Technology, Poland
Marko Jagodič, University of Ljubljana, Slovenia
Kálmán Fazekas, Budapest University of Technology and Economics, Hungary
Janus Filipiak, ComArch S.A., Poland
Borko Furht, Florida Atlantic University, U.S.A.
Mohammed Ghanbari, University of Essex, United Kingdom
Sonja Grgić, University of Zagreb, Croatia
Ebroul Izquierdo, Queen Mary - University of London, United Kingdom
Aggelos K. Katsaggelos, Northwestern University, USA
Andy Kucar, University of Ottawa, Canada
Panos Liatsis, UMIST, United Kingdom
Basil G. Mertzios, Democritos University of Thrace, Greece
Borivoj Modlic, University of Zagreb, Croatia
Pavol Podhradský, Slovak Technical University in Bratislava, Slovakia
K. R. Rao, University of Texas at Arlington, USA
Ralf Schäfer, Heinrich-Hertz-Institut, Germany
Karolj Skala, Rudjer Boskovic Institute, Croatia
Franc Solina, University of Ljubljana, Slovenia
Marian S. Stachowicz, University of Minnesota Duluth, USA
Ryszard Stasiński, Poznan University of Technology, Poland
Ján Turán, Technical University of Kosice, Slovakia
Krzysztof Wajda, University of Mining and Metallurgy, Poland
Branka Zovko-Cihlar, University of Zagreb, Croatia

VIPromCom-2002 SYMPOSIUM INTERNATIONAL REVIEW COMMITTEE

Hocine Cherifi, University of Bourgogne, France
Bill Christmas, University of Surrey, United Kingdom
Paul Cristea, "Politehnica" University of Bucharest, Romania
Žarko Čučej, University of Maribor, Slovenia
Radu Dobrescu, "Politehnica" University of Bucharest, Romania
Marek Domański, Poznan University of Technology, Poland
Kálmán Fazekas, Budapest University of Technology and Economics, Hungary
Ebroul Izquierdo, Queen Mary - University of London, United Kingdom
Peter Kauff, Heinrich-Hertz-Institut, Germany
Ekram Khan, University of Essex, United Kingdom
Panos Liatsis, UMIST, United Kingdom
Rastislav Lukač, Technical University of Kosice, Slovakia
Basil G. Mertzios, Democritos University of Thrace, Greece
Miloš Oravec, Slovak Technical University in Bratislava, Slovakia
Igor S. Pandžic, University of Linköping, Sweden
Peter Peer, University of Ljubljana, Slovenia
Peter Planinskič, University of Maribor, Slovenia
Pavol Podhradský, Slovak Technical University in Bratislava, Slovakia
K. R. Rao, University of Texas at Arlington, USA
Gregor Rozinaj, Slovak Technical University in Bratislava, Slovakia
Ralf Schäfer, Heinrich-Hertz-Institut, Germany
Franc Solina, University of Ljubljana, Slovenia
Marian S. Stachowicz, University of Minnesota Duluth, USA
Ryszard Stasiński, Poznan University of Technology, Poland
Karl-Göran Stenborg, University of Linköping, Sweden
Son Minh Tran, Budapest University of Technology and Economics, Hungary
Ján Turán, Technical University of Kosice, Slovakia
Krzysztof Wajda, University of Mining and Metallurgy, Poland

PROGRAMME AT A GLANCE

Sunday, 16 June 2002

09:00 - 10:00 Registration			
HALL A	HALL B	HALL C	HALL D
	10:00 - 12:00 VIPromCom-2002: TUTORIAL		
17:00 - 20:00 ZADAR SIGHTSEEING (included in the registration fee) Meeting Point: Hotel "Kolovare", Reception, 17:00			

Monday, 17 June 2002

08:00 - 09:00 Registration			
HALL A	HALL B	HALL C	HALL D
	09:00 - 09:30 Opening of ELMAR-2002 & VIPromCom-2002		
09:30 - 10:00 WELCOME COCKTAIL (organised by sponsor)			
	10:00 - 12:00 ELMAR-2002: INVITED SPEAKERS		
	12:00 - 12:15 STORM COMPUTERS Presentation		
12:15 - 14:00 Lunch Break			
14:00 - 14:45 VIPromCom-2002: KEYNOTE SPEAKER	14:00 - 16:00 ELMAR-2002: SESSION B-1.1		
14:45 - 16:00 VIPromCom-2002: INVITED SPEAKERS			
16:00 - 16:30 Coffee Break			
16:30 - 18:30 VIPromCom-2002: SESSION A-1	16:30 - 18:30 ELMAR-2002: SESSION B-1.2	16:30 - 18:30 VIPromCom-2002: SESSION C-1	16:30 - 18:30 VIPromCom-2002: SESSION D-1
18:30 - 18:45 MICRO - LINK Presentation			
20:00 SYMPOSIUM DINNER (included in the registration fee)			

PROGRAMME AT A GLANCE

Tuesday, 18 June 2002

08:00 - 09:00 Registration			
HALL A	HALL B	HALL C	HALL D
09:00 - 11:00 VIPromCom-2002: SESSION A-2	09:00 - 11:00 ELMAR-2002: SESSION B-2	09:00 - 11:00 VIPromCom-2002: SESSION C-2	09:00 - 11:00 VIPromCom-2002: SESSION D-2
11:30 - 20:00 EXCURSION BY SHIP + LUNCH (organised by sponsor) <u>Meeting Point: Hotel "Kolovare", Reception, 11:30</u>			

Wednesday, 19 June 2002

08:00 - 09:00 Registration			
HALL A	HALL B	HALL C	HALL D
09:00 - 11:00 VIPromCom-2002: SESSION A-3.1	09:00 - 11:00 ELMAR-2002: SESSION B-3	09:00 - 11:00 VIPromCom-2002: SESSION C-3	09:00 - 11:00 VIPromCom-2002: SESSION D-3
11:00 - 11:30 Coffee Break			
11:30 - 13:30 VIPromCom-2002: SESSION A-3.2	11:30 ELMAR Society Annual Meeting (for ELMAR Society members only)		

Sunday, 16 June 2002

09:00-10:00 **Registration**

HALL A

Sunday, 16 June 2002

10:00-12:00 **VIPromCom-2002 Symposium: TUTORIAL**

Chair: **B. Zovko-Cihlar**

Professor Marian S. Stachowicz, USA:
Digital Fuzzy Sets and Image Processing: A Comprehensive Overview

12:00-15:00 **Lunch Break**

17:00-20:00 **ZADAR SIGHTSEEING (included in the registration fee)**
Meeting Point: Hotel "Kolovare", Reception, 17:00



Monday, 17 June 2002

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

HALL A+B	Monday, 17 June 2002
09:00-09:30	Opening of the ELMAR-2002 & VIPromCom-2002 Symposium
	Cap. Ive Mustać, Director of the Technical Department - Tankerska plovidba Zadar & General Chair of the ELMAR-2002 Symposium Organising Committee; CROATIA: Welcome Speech
09:30-10:00	Welcome Cocktail (organised by sponsor)
10:00-12:00	ELMAR-2002 Symposium: INVITED SPEAKERS
<u>Session Chair:</u>	B. Zovko-Cihlar, V. Jerić
	Mr. Ante Dodig, Assistant Minister of Maritime Affairs, Transportation and Communications of the Republic of Croatia, Zagreb, CROATIA: Influence of the Market Liberalisation on the Telecommunications Development in the Republic of Croatia
	Vice Admiral Davorin Kajić, Naval Doctrine Department, General Staff, Zagreb; CROATIA: International Exercise for Fire Fighting "Taming the Dragon"
	Professor K. R. Rao, University of Texas at Arlington; USA: Multimedia Communications
	Mr. Stanko Banić, Director of Tankerska plovidba Zadar; CROATIA: Tankerska - Successful Privatisation
	Mr. Ivica Mudrinić, President and CEO of Croatian Telecom, Zagreb; CROATIA: HT Ready for a New Quantum Leap
	Mrs. Tatjana Holjevac, CEO of VIP-NET GSM, Zagreb; CROATIA: VIPnet keeps Pace with World Trends - Multimedia Messaging Service
	Jürgen Haag, Deutsche Telekom AG; Germany: An European Network Operator Starts up
	Dr. Nenad Bobanac, Director of Brodarski Institute - Marine Research and Special Technologies, Zagreb; CROATIA: From Development and Research to the Prototype and Industrial Prototype 2001+
	Mr. Darko Bandula, Brodarski Institute - Marine Research and Special Technologies, Zagreb; CROATIA: Design and Development of Oil Spill Response Craft ECO-13
	Christian Barlach, Dassault Systemes; FRANCE: "3D PLM" for Shipbuilding
	Professor Branka Zovko-Cihlar, Faculty of Electrical Engineering and Computing, Zagreb; CROATIA: Wireless Multimedia Networks

12:00-12:15	STORM Computers Presentation
Mario Gerencir, Branko Ogorelec; CROATIA:	Video on Demand
12:15-14:00	Lunch Break
14:00-14:45	VIPromCom-2002 Symposium: OPENING SESSION
<u>Session Chair:</u>	B. Zovko-Cihlar
14:00-14:45	VIPromCom-2002 KEYNOTE SPEAKER
Professor Aggelos K. Katsaggelos; USA:	Recent Advances in Multimedia Signal Processing and Communications
14:45-16:00	VIPromCom-2002 INVITED SPEAKERS
Professor K. R. Rao; USA:	JPEG 2000
Professor Ralf Schäfer; GERMANY:	Image Processing and Coding for an Immersive Teleconferencing System
16:00-16:30	Coffee Break
HALL A	Monday, 17 June 2002
16:30-18:30	VIPromCom-2002 Symposium: SESSION A-1
<u>Session Chair:</u>	P. Cristea
Pavol Podhradsky, Eugen Mikoczy; SLOVAKIA:	The E-Learning & Consulting Service Based on the Converged IN and IP Networks
Paul Dan Cristea; ROMANIA:	Complex Genomic Signals
Dražen Kedmenec, Vedran Kedmenec, Mislav Grgić, Branka Zovko-Cihlar; CROATIA:	Enabling Multimedia Services in Unified Access Network
Robert Veronik, Rado Slatinek, Bogomir Horvat; SLOVENIA:	Multimedia Application for Teaching and Learning Telecommunication Protocols
Th. Zahariadis, S. Voliotis; GREECE:	Networking Multimedia Classroom Initiative
Victor Alves, José Neves, Moreira Maia, Luís Nelas; PORTUGAL:	Medical Image Processing Using Extended Logic Programming and Artificial Neural Networks
Maja Čić, Darko Stipaničev; CROATIA:	XML Based Multimedia Database of Mestrovic Gallery
Dušan Gleich, Peter Planinšič, Žarko Čučej; SLOVENIA:	Fuzzy Coded Trellis Quantization

Otto Dostál, Miloslav Filka, Martin Petrenko; CZECH REPUBLIC:

Multimedia Communication Transmission in Medicine

18:30-18:45 **MICRO - LINK Presentation**

Saša Punčíkar, Damjan Hadjina; CROATIA:

Wireless Multimedia Communications

20:00 **SYMPOSIUM DINNER (included in the registration fee)**

HALL B	Monday, 17 June 2002
--------	----------------------

14:00-16:00 **ELMAR-2002 Symposium: SESSION B-1.1**

Session Chair: **B. Medved Rogina, T. Kos**

Pavel Cukrov; CROATIA:

Application of Naval Assets in Peacetime

Damir Gulin; CROATIA:

Profile for Maritime HF Data Communications

Renato Filjar; CROATIA:

Horizontal GPS Error Distributions in Different Positioning Conditions: A Case Study

Tomislav Kos; CROATIA:

Future Trends in Global Navigation

Jakov Kitarović, Ante Tićac; CROATIA:

Interference Considerations in GPS Receiver

Zlatan Kulenović; CROATIA:

About Strength Investigation of Ship's Hydraulic Governor Element

Ivica Kuzmanić, Zlatan Kulenović, Igor Vujović; CROATIA:

Simulation of Strain Gauges' Thermal Output

with Neural Networks in Marine Applications

Slavko Šimundić, Marin Mardešić; CROATIA:

Informational Research of the Expert System Structure

for The Record Keeping Activity of the Ship Construction Process

16:00-16:30 **Coffee Break**

16:30-18:30 **ELMAR-2002 Symposium: SESSION B-1.2**

Session Chair: **V. Roje, A. Šarolić**

Draško Marin; CROATIA:

Some Effects of Technological Evolution in the Cellular Mobile Telecommunications

Winton Afrić; CROATIA:

Codes Allocation at the UMTS/IMT-2000 based on Wideband CDMA FDD

Natalia Matošić; CROATIA:

Mobile Station Positioning Methods

Ivan Pišmiš, Nataša Ilijasević, Tomislav Blajić; CROATIA:
Hot-Spot Solutions for the Universal Mobile Telecommunication System

Željka Car; CROATIA:
Telecommunication Software Maintenance Process Evaluation by Queuing Network

Boris Drilo, Leon Flatz, Hrvoje Bencic; CROATIA:
Security Enhancements for WLAN-3G Inter-Working

Antonio Šarolić, Dragan Poljak, Borivoj Modlic; CROATIA:
Navigational Radar Radiation Hazard Analysis for Small Ships

Antonio Šarolić; CROATIA:
E TO 80 Standardization Activities - First Phase Finished

20:00 **SYMPORIUM DINNER (included in the registration fee)**

HALL C	Monday, 17 June 2002
---------------	-----------------------------

16:30-18:30 **VIPromCom-2002 Symposium: SESSION C-1**

Session Chair: **K. Fazekas**

Marian S. Stachowicz, David Lemke; USA:
Image Segmentation and Classification Using Color Features

Miloš Oravec; SLOVAKIA:
PCA Applied to Neural Internal Representation
of Input Data - Application to Face Recognition

Ebroul Izquierdo; UNITED KINGDOM:
How Accurate Should be Disparities Estimated for Image-based Rendering?

Xiaoyan Dai, Junji Maeda; JAPAN:
Unsupervised Segmentation of Textured Color Images
Using Fuzzy Homogeneity Decision

Hasan Demirel; TURKEY:
Color-Space Analysis for Facial Feature Detection

Vilasinee Srisarkun, Joan Cooper; AUSTRALIA:
Face Recognition Using a Similarity-Based Measure
in Image Database for Crime Investigation

Javad Haddadnia, Karim Faez; IRAN:
Hybrid N-Feature Extraction with Fuzzy Integral in Human Face Recognition

Roman Trboč, Roman Novak, Srečo Plevel, Ivan Zupan, Mira Zupančič; SLOVENIA:
Single-board Wavelet Video Compression/Decompression Unit

20:00 **SYMPORIUM DINNER (included in the registration fee)**

16:30-18:30 **VIPromCom-2002 Symposium: SESSION D-1**

Session Chair: **B. Ivančević**

**Alexandru Popa, George L. Kovács, Geza Haidegger,
Aurelian Stanescu; ROMANIA / HUNGARY:**

Are Present Multimedia Technologies Good Enough
for Applications in Industrial Environment?

Alcina Prata, Pedro Faria Lopes; PORTUGAL:

How to Plan, Develop and Evaluate Multimedia Applications - A Simple Model

Xia Mao, Bin Chen, Gang Zhu, Tsutomu Hoshino; CHINA / JAPAN:

Study on Transforming from Painting to Music

Marjan Sikora, Bojan Ivančević, Kristian Jambrošić; CROATIA:

Use of Acoustic Simulation and Visualization for Revitalization of Ancient Buildings

George L. Kovacs, Ivan Kas; HUNGARY:

Some Problems of a Digital Motion Picture Restoration System

Martin Bernas; CZECH REPUBLIC:

Image Quality Evaluation

Igor Vujović, Ivica Kuzmanić, Maja Krčum; CROATIA:

Experimental Results on Visibility Threshold in Human Visual Perception
for Application in Image/Video Coding and Quality Assessment

20:00 **SYMPOSIUM DINNER (included in the registration fee)**

Tuesday, 18 June 2002

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

HALL A

Tuesday, 18 June 2002

09:00-11:00 **VIPromCom-2002 Symposium: SESSION A-2**

Session Chair: **P.S. Szczepaniak**

Janusz Sobecki; POLAND:

Adaptive Interface for Hypermedia Applications

Michał Jacymirski, Piotr S. Szczepaniak; POLAND:

Neural Realization of Fast Linear Filters

Rastislav Lukáč; SLOVAKIA:

Simplified Boolean LUM Smoothers

H. Bessalah, F. Alim, S. Seddiki; ALGERIA:

Implementation of the Hough Transform by the On-line Mode

Radu Dobrescu, Florin Talos, Catalin Vasilescu; ROMANIA:

Using Fractal Dimension for Cancer Diagnosis

Constantin Popescu; ROMANIA:

Applications of Group Signatures to Anonymous Fingerprinting Schemes

11:30-20:00 **EXCURSION BY SHIP + LUNCH (organised by sponsor)**

Meeting Point: Hotel "Kolovare", Reception, 11:30

HALL B

Tuesday, 18 June 2002

09:00-11:00 **ELMAR-2002 Symposium: SESSION B-2**

Session Chair: **K. Ugrinović**

Bojan Ivančević, Kristian Jambrošić , Mladen Maletić; CROATIA:

Characteristics of Reverberation Time Measuring Signals

Kosta Ugrinović, Olivera Pionić; CROATIA:

Indirect Evaluation of a Silent Vessel Passive Detection Structure

Damir Zibrat; AUSTRIA:

Usage of Shock Pulse Method (SPM) and Vibration Measurements
for Enhancing of Reliability of Rotational Machinery on Ships

Srećko Krile; CROATIA:

Different Heuristic Options for Satellite Link Expansion in Mobile Networks

Krešimir Lukač; SWITZERLAND:

Software Quality Management in the Rep. of Croatia

Robert Brekalo; CROATIA:

3D Electrical Design

Marko Horvat, Branko Somek, Hrvoje Domitrovic; CROATIA:

Obtaining Loudspeaker Drive Unit Parameters from the Impedance Characteristic

11:30-20:00 **EXCURSION BY SHIP + LUNCH (organised by sponsor)**

Meeting Point: Hotel "Kolovare", Reception, 11:30

HALL C

Tuesday, 18 June 2002

09:00-11:00 **VIPromCom-2002 Symposium: SESSION C-2**

Session Chair: **G. Rozinaj**

Dominik Engel, Andreas Uhl; AUSTRIA:

Adaptive Object-Based Image Compression Using Wavelet Packets

Nikola Šprljan, Sonja Grgić, Marta Mrak, Mislav Grgić; CROATIA:

Modified SPIHT Algorithm for Wavelet Packet Image Coding

Marta Beltrán Pardo, Christian Tenllado van der Reijden; SPAIN:

Embedded Lossy Image Compression Based on Wavelet Transform

Radoslav Vargic; SLOVAKIA:

An Approach to Directional Wavelet Construction and Their Use for Image Compression

Marta Mrak, Mislav Grgić, Sonja Grgić; CROATIA:

Scalable Video Coding in Network Applications

Gregor Rozinaj, Sergio Herrera, Juraj Mikula; SLOVAKIA / MEXICO:

Modified BTC Algorithm for Satellite Image Coding

Tatiana Karlubíková, Jaroslav Polec, Jarmila Pavlovičová,

Martina Kováčiková; SLOVAKIA:

Scan Methodology Optimization Based on Correlation

Borut Batagelj, Peter Peer, Franc Solina; SLOVENIA:

System for Active Video Observation over the Internet

11:30-20:00 **EXCURSION BY SHIP + LUNCH (organised by sponsor)**

Meeting Point: Hotel "Kolovare", Reception, 11:30

HALL D

Tuesday, 18 June 2002

09:00-11:00 **VIPromCom-2002 Symposium: SESSION D-2**

Session Chair: **E. Izquierdo**

Fabio Cavalli, Rita Cucchiara, Massimo Piccardi, Andrea Prati; ITALY / AUSTRALIA:
Performance Analysis of MPEG-4 Decoder and Encoder

L. Konyha, S. M. Tran, K. Fazekas, A. Gschwindt; HUNGARY:
Deployment of Wavelet Transform to VOP Codec Scheme

**Boris Vassaux, Philippe Nguyen, Severine Baudry,
Patrick Bas, Jean-Marc Chassery; FRANCE:**
Scrambling Technique for Video Object Watermarking Resisting to MPEG-4

Zoltán Rozsnyik, István Loványi; HUNGARY:
Blind Watermarking Method Using Partitioned DCT Channels

R. Lancini, F. Mapelli, S. Tubaro; ITALY:
A Robust Video Watermarking Technique in the Spatial Domain

R. Lancini, F. Mapelli, S. Tubaro; ITALY:
Embedding Indexing Information in Audio Signal Using Watermarking Technique

**C.V. Serdean, M.A. Ambroze, M. Tomlinson,
G. Wade; UNITED KINGDOM / AUSTRALIA:**
Combating Geometrical Attacks in a DWT Based Blind Video Watermarking System

11:30-20:00 **EXCURSION BY SHIP + LUNCH (organised by sponsor)**
Meeting Point: Hotel "Kolovare", Reception, 11:30

Wednesday, 19 June 2002

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

HALL A	Wednesday, 19 June 2002
--------	-------------------------

09:00-11:00 **VIPromCom-2002 Symposium: SESSION A-3.1**

Session Chair: **K. R. Rao**

M. ElHassouni, H. Chérifi, D. Aboutajdine; MAROC / FRANCE:
An Adaptive Motion-Compensated Filter Using Cumulants

Rastislav Lukáč; SLOVAKIA:
Another Generalisation of Vector Filters

Hemamalini Narayanan, K. R. Rao; USA:
Motion Compensated Multimode Video Coding for Noisy Channels

Serap Askar, Peter Kauff, Nicole Brandenburg, Oliver Schreer; GERMANY:
Fast Adaptive Upscaling of Low Structured Images Using a Hierarchical Filling Strategy

K.N.R. Mohana Rao, A.G. Dempster; UNITED KINGDOM:
Modification on Distance Transform to Avoid
Over-Segmentation and Under-Segmentation

K.N.R. Mohana Rao, A.G. Dempster; UNITED KINGDOM:
Use of Area-closing to Improve Granulometry Performance

R. Atta, M. Ghanbari; UNITED KINGDOM:
A Drift Compensation Architecture for DCT-Pyramid Video Coding

11:00-11:30 **Coffee Break**

11:30-13:30 **VIPromCom-2002 Symposium: SESSION A-3.2**

Session Chair: **P. Liatsis**

P. Liatsis, C. Ooi; UNITED KINGDOM:
Tracking Moving Objects with Coevolutionary Snakes

Ben-Zion Shaick, Leonid Yaroslavsky; ISRAEL:
Image Reduction for Object Recognition

Jaka Krivic, Franc Solina; SLOVENIA:
Part-Level Object Recognition

Paul Bao, Lei Zhang; HONG KONG:
Scale Correlation-based Edge Detection

S. Rital, A. Bretto, H. Cherifi, D. Aboutajdine; FRANCE / MAROC:
A Combinatorial Edge Detection Algorithm on Noisy Images

Rastislav Lukáč; SLOVAKIA:

Vector Order-Statistics for Impulse Detection in Noisy Color Image Sequences

J. Levendovszky, L. Kovács, G. Jeney; HUNGARY:

Novel Adaptive Signal Processing Algorithms for Multiuser Detection

HALL B

Wednesday, 19 June 2002

09:00-11:00 **ELMAR-2002 Symposium: SESSION B-3**

Session Chair: **T. Kos**

Neven Šerić, Mirogoj Ikač, Zrinka Vidović; CROATIA:

Disposal of Waste Water in Ecologically Sensitive Environment of Lighthouses

Nikola Šprljan, Mislav Grgić, Tomislav Kos; CROATIA:

ADSL Performance Testing

Darko Kolarić, Karolj Skala, Tomislav Šćepanović; CROATIA:

The Low Spectral Density Analyses by Video Extraction

D. Kovačić, M. Vrdoljak, D. Vakante; CROATIA:

An Approach to the Wireless LAN Design

Ivan Vilović; CROATIA:

A LAN Network Architecture for Internetworking Services

Ivan Vilović; CROATIA:

An Approach to Development of an Multicast Architecture

Andrija Maričić; MALAYSIA:

Formal Model of Roman Calculator

11:00-11:30 **Coffee Break**

11:30 **ELMAR Society Annual Meeting**

(for ELMAR Society members only)

HALL C

Wednesday, 19 June 2002

09:00-11:00 **VIPromCom-2002 Symposium: SESSION C-3**

Session Chair: **P. Podhradsky**

Eddie Cooke, Peter Kauff, Oliver Schreer; GERMANY:

Multiple Narrow-Baseline System for Immersive Teleconferencing

Oliver Schreer, Ingo Feldmann, Uli Götz, Peter Kauff; GERMANY:

Fast and Robust Shadow Detection in Videoconference Applications

Rosa Lancini, Marco Fumagalli, Enrico Arsura; ITALY:

Scalable and Robust Videoconference Codec

Peter Trúchly, Michal Sedlár; SLOVAKIA:

Simulation of GEO Satellite on LAN

Ivan Kotuliak, Tülin Atmaca, Pavol Podhradský; FRANCE / SLOVAKIA:
Performance of the All-Optical Packet Switch in the WAN and MAN Networks

Vladimir Ivček, Damir Jurak, Davor Virkes; CROATIA:
Reverse Probability Density of Channel Utilisation as a Grade-of-Service Indication

**Th. Zahariadis, N. Vogiatzis, I. Kitroser,
A. Andritsou; GREECE / NETHERLANDS / ISRAEL:**
Adaptive Transport Protocol for Broadband Fixed Wireless Systems

Tomáš Kratochvíl, Václav Říčný; CZECH REPUBLIC:
The Digital Image Transmission Simulation
by the Model of the Digital Transmission Channel

Bogusław Cyganek, Jan Borgosz; POLAND:
Computer Platform for Evaluation of Stereo Image Algorithms

HALL D

Wednesday, 19 June 2002

09:00-11:00 **VIPromCom-2002 Symposium: SESSION D-3**

Session Chair: **A. Smolić**

Carlos Serrão, Joaquim Marques; PORTUGAL:
DIGIPIPE - A Pipeline Methodology for Digital Image Production and Protection

Thomas Davies; UNITED KINGDOM:
Applications of Novel Video Compression Technology in Television

Vedran Klepac, Sanja Marković; CROATIA:
Integration of DV to D9 and DVCAM to MPEG-2 System

Janez Stergar, Bogomir Horvat; SLOVENIA:
Implementing Digital Video into Time Line Based Authoring Environments

Aljoscha Smolić; GERMANY:
Robust Generation of 360° Panoramic Views from Consumer Video Sequences

Lidija Mandić, Sonja Grgić, Ida Srđić; CROATIA:
Data Formats in Digital Prepress Technology

**José C. López-Ardao, Cándido López, Alberto Gil, Rebeca Díaz,
Ana Fernández, Manuel Fernández, Andrés Suárez, Javier Muñoz; SPAIN:**
Experiences from Implementing a MHP Receiver

**Alberto Gil, José Pazos, Ana Fernández, Rebeca Díaz,
Manuel Fernández, Manuel Ramos; SPAIN:**
Internet-TV Convergence in DVB-MHP

**Raúl Rodríguez, Alberto Gil, Ana Fernández, Rebeca Díaz,
Manuel Fernández, Jorge García; SPAIN:**
DVB-MHP Transport Stream Generator

Radomir Bašić, Miroslav Močinić; BOSNIA AND HERZEGOVINA:
User's Requirements for Electronic Program Guide (EPG) in Interactive Television (iTV)

SOCIAL PROGRAMME, EXCURSION AND OTHER EVENTS

Sunday, 16 June 2002, 17:00-20:00
Zadar Sightseeing (included in the registration fee)
Meeting Point: Hotel "Kolovare", Reception, 17:00

Monday, 17 June 2002, 09:00
Opening of the ELMAR-2002 & VIPromCom-2002 Symposium
Hotel "Kolovare", Hall A+B

Monday, 17 June 2002, 09:30-10:00
Welcome Cocktail (organised by sponsor)
Hotel "Kolovare"

Monday, 17 June 2002, 20:00
Symposium Dinner (included in the registration fee)
Hotel "Kolovare"

Tuesday, 18 June 2002, 11:30-20:00
Excursion by Ship + Lunch (organised by sponsor)
Meeting Point: Hotel "Kolovare", Reception, 11:30

Wednesday, 19 June 2002
ELMAR Society Annual Meeting (for ELMAR Society members only)
Hotel "Kolovare", Hall A, 11:15

REGISTRATION & HOTEL RESERVATION

All registration materials and hotel reservation form are available on the web:

ELMAR-2002

<http://www.vcl.fer.hr/elmar/2002/>

VIPromCom-2002

<http://www.vcl.fer.hr/vip/2002/>