

ÖAGM 2000



Bank Austria



24th Workshop of the
AUSTRIAN ASSOCIATION FOR PATTERN RECOGNITION (AAPR)

"Applications of 3D-Imaging and Graph-based Modeling"

Villach, Carinthia, Austria
May 25 - 26, 2000

Co-Chairmen

Christian Menard
Verbundplan GmbH
Consulting Engineers
Klagenfurt

Robert Sablatnig
Institute of Computer Aided Automation
Pattern Recognition and Image Processing Group
Vienna University of Technology

Program Committee

H. Bischof (TU Vienna)
W. Burger (FHS Hagenberg)
D. Chetverikov (Budapest)
V. Hlavac (TU Prague)

W.G. Kropatsch (TU Vienna)
A. Leonardis (Univ.Ljubljana)
G. Paar (Joanneum Res. Graz)
A. Pinz (TU Graz)

E. Schuster (Univ. Vienna)
R. Seywald (CTR Villach)
M. Vincze (TU Vienna)
V. Roberto (Univ. Udine)

Local Organization

Raimund Seywald (Chair)
CTR Carinthian Tech Research
Villach

Carmen Oberortner (CTR Villach)
Karin Hraby (TU Vienna)
Michael Dangl (TU Vienna)

Program

Thursday, 25 May 2000

- 09:00 – 09:30 **Welcome Reception and Opening:**
Helmut Manzenreiter, Major of Villach
- 09:30 – 10:45 **Guest Speaker:** Pierre Boulanger
Creation of Live Virtual Reality Model of Real Environments from
Sensor Fusion
- 10:45 – 11:00 **Coffee Break**

Session 1: 3D Acquisition and Calibration (Chair: G. Paar)

- 11:00 – 11:20 Martin Kampel and Srđan Tosovic
Turntable Calibration for Automatic 3D-Reconstruction
- 11:20 – 11:40 Christian Eitzinger
Calibration of Optical Measurement Systems Using Invariants
- 11:40 – 12:00 Janne Haverinen and Juha Rönig
A 3D Scanner Capturing Range and Color: Design and Calibration
- 12:00 – 12:20 Giovanna Sansoni, Matteo Carocci, and Roberto Rodella
Phase Coded Profilometry Based on Frequency Mixing
- 12:20 – 12:40 Danijel Skočaj and Aleš Leonardis
Obtaining High Dynamic Scale Radiance Maps by Varying
Illumination Intensity
- 12:40 – 14:30 **Lunch**

Session 2: 3D Modelling and Posters (Chair: W. Burger)

- 14:30 – 14:50 Josef Scharinger
Watermark Generation for 3D Imaging
- 14:50 – 15:10 Axel Pinz, Jochen Martin, and Thomas Auer
Automatic 3D Extraction of Visual Landmarks in a Room
- 15:10 – 15:30 Vít Zýkla and Radim Sára
Polynocular Image Set Consistency for Local Model Verification

Postersession:

- 15:30 – 15:50 Short Talks:
Heinz Mayer and Peter Werth
An Automatic Positioning System for BRDF Measurements of
Rough Surfaces
- Peter Werth and Stefan Scherer
Direct Subpixel Stereo Matching by Deconvolution of Image
Translations
- Martin Lindermaier, Wilfried Kubinger, and Markus Vincze
On Performance Evaluation of Image Comparison Algorithms for
Video Surveillance Applications
- Georg Fischer and Ernst Schuster
3D-Visualization of Spatial Distributions of EEG-Signals by
"Axon"
- 15:50 – 16:10 Presentation
- 16:10 – 16:30 **Coffee Break**

Session 3: Robust Vision (Chair: A. Leonardis)

- 16:30 – 16:50 Horst Bischof and Aleš Leonardis
Recovery of Eigenimages from Responses of Local Filter Banks
- 16:50 – 17:10 Thomas Melzer and Michael Reiter
Parametric Stereo Eigenspaces
- 17:10 – 17:30 Simon Kurinčič and Aleš Leonardis
Robust Approach to Calibration-Free Augmented Reality
- 17:30 – 19:00 **Plenary Session ÖAGM**
- 20:00 **Conference Dinner**
Gasthof BACHER
Vassacher Straße 58
9500 Villach
TelNr.: 04242 – 26893
See also map below.

Friday, 26 May 2000

Session 4: Machine Vision (Chair: A. Pinz)

- 09:00 – 09:20 Markus Brandner, Axel Pinz, and Wolfgang Pölzleitner
A Concept for Real-time, Robust Pattern Matching
- 09:20 – 09:40 Arno Zaworka, Stefan Scherer
Machine Vision Driven Real-time Black Jack Analysis
- 09:40 – 10:00 Michael Nestler, Harald Ganster, Axel Pinz, and Georg Brasseur
Defect Detection for Real-time Quality Grading of Apples
- 10:00 – 10:20 Christian Wolf, Jean-Michel Jolion, and Horst Bischof
Histograms for Texture based Image Retrieval
- 10:20 – 10:40 M. Zillich, M. Vincze, M. Ayromlou, D. Legenstein
A Framework for Model-based Vision for Robotics (V4R)
- 10:40 – 11:00 **Coffee Break**

Session 5: Graph-based Modelling and Airborn Vision (Chair: W. Kropatsch)

- 11:00 – 11:20 Mark Burge
Efficient Feature Computation for Run Graphs
- 11:20 – 11:40 R. Glantz and W.G. Kropatsch
Parallel Relinking of Graph Pyramids
- 11:40 – 12:00 Regine Bolter and Franz Leberl
Shape-from-Shadow Building Reconstruction from Multiple View SAR Images
- 12:00 – 12:20 Jürgen Scheiber
Automatic Identification of Position, Motion, and Development of Thundercloud Cells and Weather Fronts
- 12:20 – 12:40 **Closing**
- 15:00 (optional) **Guided tour through CTR**, please register at registration desk

Conference Dinner

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