

Programme Schedule

Monday, August 25	
08.00 – 09.00	Registration
09.00 – 09.20	<i>Opening</i>
09.20 – 11.00	Classification (1)
<i>Break</i>	
11.20 – 13.00	Analysis and Understanding (1)
<i>Lunch</i>	
14.00 – 15.30	Poster session (1)
<i>Break</i>	
16.00 – 17.40	Recognition and Video Processing
18.00	<i>City walk</i>

Tuesday, August 26	
09.00 – 09.40	Invited talk: N. Ayache
09.40 – 11.00	Shape
<i>Break</i>	
11.20 – 13.00	Interpolation and Spatial Transformations
<i>Lunch</i>	
14.00 – 15.30	Poster session (2)
<i>Break</i>	
16.00 – 17.40	Analysis and Understanding (2)
18.00	<i>Conference banquet</i>

Wednesday, August 27	
09.00 – 09.40	Invited talk: D. Gavrilu
09.40 – 11.00	Filtering
<i>Break</i>	
11.20 – 13.00	Segmentation
<i>Lunch</i>	
14.00 – 15.30	Poster session (3)
<i>Break</i>	
16.00 – 16.40	Invited talk: J. Daugman
16.40 – 17.40	Classification (2)
17.40 – 18.00	<i>Closing</i>

CAIP 2003 Information

Venue: University Hospital Groningen (AZG; Academisch Ziekenhuis Groningen), Hanzeplein 1.

Almost all conference activities take place in the **Fonteinpatio**, where you can find the registration desk and the posters. Coffee, tea, and **lunches** will also be served in this area. The lecture room is called **Rode Zaal**, and it is located on the second floor. On the back cover of this booklet, you can find a floor plan of the hospital.

Please mount your **poster** as soon as you have the opportunity, and leave it displayed until the last day of the conference. You should remove the poster at the latest during the Wednesday afternoon break, which directly follows the poster session.

If you have an **oral presentation**, please set up your equipment during the break before your session. If you brought slides, or only a Powerpoint presentation, please hand them in at the registration desk.

A number of computers for **Internet access** are available in room S.1111.

Inside the hospital, you can find several shops, including a book store and supermarket (near the entrance), a branch of one of the national banks, as well as cash dispensers and cafeterias.

The main areas where you can find **restaurants** are indicated on the city centre map on the facing page. Restaurants that serve traditional Dutch food do not really exist. The most 'typical' Dutch food which is still served, 'pannenkoeken' (pancakes), is served at the Pannenkoekenschip (a ship in the Schuitendiep near the Casino). Expect pancakes similar to a pizza in both size and topping. If you feel really adventurous, you should sample 'zoute haring', an uncooked and pickled herring, which you can buy on the open air food market (located on the Vismarkt).

The registration desk can be contacted for urgent messages at phone number +31503612754. Alternatively, the secretariat of the Inst. of Mathematics and Computing Science can be contacted, phone number +31503633939, fax number +31503633800.

Social Programme

August 25: Discover Groningen on foot

What better way to get to know a city than on foot? You will be accompanied by a professional Tourist Information Centre guide who knows all the ins and outs of our city and who will also tell you all about it!

Time: 18.00

Starting point: University Hospital

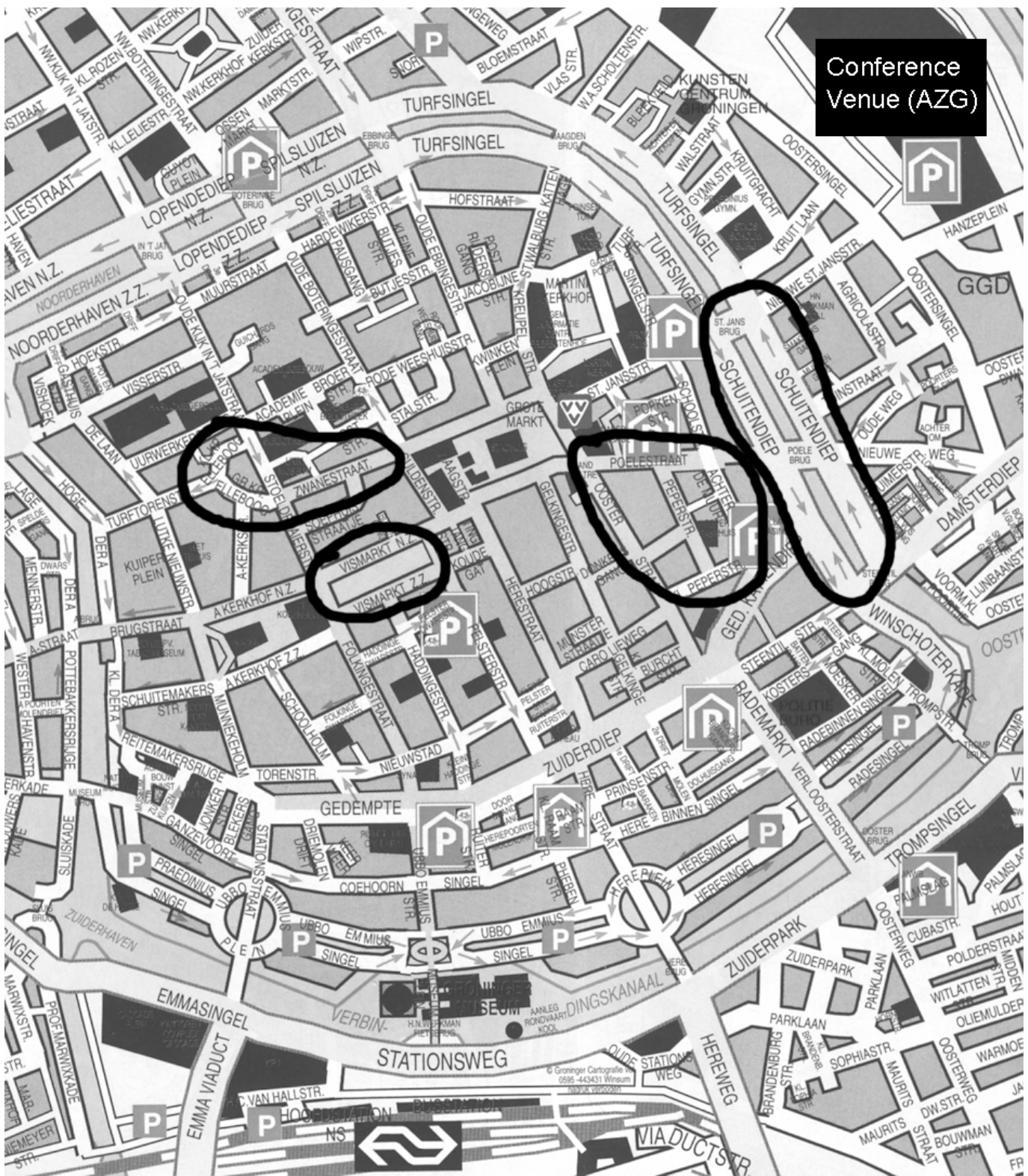
Duration: 1.5 hours

August 26: Conference Banquet

The banquet is held in 'De Plaats Melkema', which is an important monument in the province of Groningen. Already in 1326, this place was known for its strict, but fair judge Abel Melkema. Later in history, it became an important center for the Mennonites. It was inhabited until the end of the 1960's, after which it was gradually changed into a catering establishment.

Time: 18.00, departure by bus from the University Hospital.

Conference Venue (AZG)



Monday, August 25

08.00 Registration

09.00 Opening

Classification (1)

09.20 Greedy Algorithm for a Training Set Reduction in the Kernel Methods

V. Franc, V. Hlaváč

09.40 Graph Clustering with Tree-Unions

A. Torsello, E.R. Hancock

10.00 Writer Style from Oriented Edge Fragments

M. Bulacu, L. Schomaker

10.20 Font Classification Using NMF

C.W. Lee, H. Kang, K. Jung, H.J. Kim

10.40 Feasible Adaptation Criteria for Hybrid Wavelet – Large Margin Classifiers

J. Neumann, C. Schnörr, G. Steidl

11.00 Break

Analysis and Understanding (1)

11.20 Finding the Symmetry Axis of a Perspectively Projected Plane Curve

G. Marola

11.40 Representing Orientation in n -Dimensional Spaces

B. Rieger, L.J. van Vliet

12.00 Docking of Polygons Using Boundary Descriptor

A. Imiya, S. Kudo

12.20 Construction of Complete and Independent Systems of Rotation Moment Invariants

J. Flusser, T. Suk

12.40 A Structural Framework for Assembly Modeling and Recognition

C. Bauckhage, F. Kummert, G. Sagerer

13.00 Lunch

14.00 Poster session (1)

15.30 Break

Recognition and Video Processing

16.00 Real-Time Optic Flow Computation with Variational Methods

A. Bruhn, J. Weickert, C. Feddern, T. Kohlberger, C. Schnörr

16.20 Video Mosaicking for Arbitrary Scene Imaged under Arbitrary Camera Motion

M.-T. Cheung, R. Chung

16.40 Viewpoint Selection – Planning Optimal Sequences of Views for Object Recognition

F. Deinzer, J. Denzler, H. Niemann

17.00 Recognition of Car License Plate by Using Dynamical Thresholding Method and Enhanced Neural Networks

K.-B. Kim, S.-W. Jang, C.-K. Kim

17.20 Merging Subspace Models for Face Recognition

W. Skarbek

18.00 City walk

Poster session (1)

- 1** On Design and Applications of Cylindrical Panoramas
R. Klette , G. Gimel'farb, S.K. Wei, F. Huang, K. Scheibe, M. Scheele, A. Börner, R. Reulke
- 2** Area and Moment Computation for Objects with a Closed Spline Boundary
S. Sheynin, A. Tuzikov
- 3** Simple Points in 2D and 3D Binary Images
G. Klette
- 4** Epipolar Plane Images as a Tool to Seek Correspondences in a Dense Sequence
M. Matoušek, V. Hlaváč
- 5** Rough Surface Correction and Re-illumination Using the Modified Beckmann Model
H. Ragheb, E.R. Hancock
- 6** Skeletonization of Character Based on Wavelet Transform
X. You, Y.Y. Tang, W. Zhang, L. Sun
- 7** A New Tracking Technique: Object Tracking and Identification from Motion
T. Chen, M. Han, W. Hua, Y. Gong, T.S. Huang
- 8** Evaluation of an Adaptive Composite Gaussian Model in Video Surveillance
Q. Zang, R. Klette
- 9** Low Complexity Motion Estimation Based on Spatio-Temporal Correlations and Direction of Motion Vectors
H.S. Yoon, G.S. Lee
- 10** Stereo System for Tracking Moving Object Using Log-Polar Transformation and Zero Disparity Filtering
I. Choi, J.-G. Yoon, Y.-B. Lee, S.-I. Chien
- 11** Monte Carlo Visual Tracking Using Color Histograms and a Spatially Weighted Oriented Hausdorff Measure
T. Xiong, C. Debrunner
- 12** Video Retrieval by Context-Based Interpretation of Time-to-Collision Descriptors
A. Mittal, W.-K. Sung
- 13** Trajectory Estimation Based on Globally Consistent Homography
S. Nam, H. Kim, J. Kim
- 14** Adaptive Stabilization of Vibration on Archive Films
A. Licsár, L. Czúni, T. Szirányi
- 15** A Genetic Algorithm with Automatic Parameter Adaptation for Video Segmentation
E.Y. Kim, S.H. Park
- 16** Two-Step Unassisted Video Segmentation Using Fast Marching Method
P. Steć, M. Domański
- 17** A Computation of Fingerprint Similarity Measures based on Bayesian Probability Modeling
S. Joun, E. Yi, C. Ryu, H. Kim

Tuesday, August 25

- 09.00** Invited talk: Medical Image Analysis and Simulation: Combining Models from Geometry, Physics and Physiology
N. Ayache

Shape

- 09.40** A Visual Comparison of Shape Descriptors Using Multi-Dimensional Scaling
J.D. Edwards, K.J. Riley, J.P. Eakins
- 10.00** Part-Based Shape Recognition Using Gradient Vector Field Histograms
W.-B. Goh, K.-Y. Chan
- 10.20** Measuring Sigmoidality
P.L. Rosin
- 10.40** Optimization and Tracking of Polygon Vertices for Shape Coding
J. Zaletelj, J.F. Tasic
- 11.00** Break

Interpolation and Spatial Transformations

- 11.20** Modeling Adaptive Deformations During Free-Form Pose Estimation
B. Rosenhahn, C. Perwass, G. Sommer
- 11.40** The Generalised Radon Transform: Sampling and Memory Considerations
C.L. Luengo Hendriks, M. van Ginkel, P.W. Verbeek, L.J. van Vliet
- 12.00** Monocentric Optical Space
J.J. Koenderink
- 12.20** Cumulative Chord Piecewise-Quartics for Length and Curve Estimation
R. Kozera
- 12.40** PDE Based Method for Superresolution of Gray-Level Images
A. Torii, Y. Wakazono, H. Murakami, A. Imiya
- 13.00** Lunch

14.00 Poster session (2)

- 15.30** Break

Analysis and Understanding (2)

- 16.00** Computing Neck-Shaft Angle of Femur for X-Ray Fracture Detection
T.P. Tian, Y. Chen, W.K. Leow, W. Hsu, T.S. Howe, M.A. Png
- 16.20** Illuminance Flow
S.C. Pont, J.J. Koenderink
- 16.40** Towards a Real Time Panoramic Depth Sensor
P. Peer, F. Solina
- 17.00** Depth Recovery from Noisy Gradient Vector Fields Using Regularization
T. Wei, R. Klette
- 17.20** A New Sharpness Measure Based on Gaussian Lines and Edges
J. Dijk, M. van Ginkel, R.J. van Asselt, L.J. van Vliet, P.W. Verbeek
- 18.00** Departure for conference banquet

Poster session (2)

- 18 Automatic Detection of Specular Reflectance in Colour Images Using the MS Diagram
F. Torres, J. Angulo, F. Ortiz
- 19 Bunch Sampling for Fast Texture Synthesis
D. Zhou, G. Gimel'farb
- 20 Multi-Loop Scalable MPEG-2 Video Coders
S. Maćkowiak
- 21 Multimedia Simulation of Colour Blindness and Colour Enhancement Assisted Colour Blindness
C. Sinthanayothin, S. Phoojaruenchanachai
- 22 Coefficient Partitioning Scanning Order Wavelet Packet Algorithm for Satellite Images
S.-Y. Cho, S.-Y. Han
- 23 Fingerprint Matching Based on Directional Image Feature in Polar Coordinate System
C.-H. Park, J.-J. Lee, K.-H. Park
- 24 Efficient Algorithm of Eye Image Check for Robust Iris Recognition System
J. Jang, K. Kim, Y. Lee
- 25 Topological Active Volumes
N. Barreira, M.G. Penedo, C. Mariño, F.M. Ansia
- 26 Genetic Algorithm to Set Active Contour
J.-J. Rousselle, N. Vincent, N. Verbeke
- 27 Gaussian-Weighted Moving-Window Robust Automatic Threshold Selection
M.H.F. Wilkinson
- 28 Shape from Photometric Stereo and Contours
C.-Y. Chen, R. Klette, C.-F. Chen
- 29 A Fast Algorithm for Constructing Parameterizations of Three-Dimensional Simply Connected Digital Objects
O. Weistrand
- 30 Learning Statistical Structure for Object Detection
H. Schneiderman
- 31 Blind Source Separation Using Variational Expectation-Maximization Algorithm
N. Nasios, A.G. Bors
- 32 Arabic Character Recognition Using Structural Shape Decomposition
A. Al Shaher, E.R. Hancock
- 33 Classifier Combination Through Clustering in the Output Spaces
H. Altınçay, B. Çizili
- 34 An Image-Based System for Spoken-Letter Recognition
K. Saeed, M. Kozłowski
- 35 A Comparative Study of Morphological and Other Texture Features for the Characterization of Atherosclerotic Carotid Plaques
C.I. Christodoulou, E. Kyriacou, M.S. Pattichis, C.S. Pattichis, A. Nicolaidis

- 09.00** Invited talk: Intelligent Vehicles That See (and Act)
D. Gavrila

Filtering

- 09.40** Discrete Morphology with Line Structuring Elements
C.L. Luengo Hendriks, L.J. van Vliet
- 10.00** The D-Dimensional Inverse Vector-Gradient Operator and its Application for Scale-Free Image Enhancement
P.W. Verbeek, J. Dijk
- 10.20** A Simple and Efficient Algorithm for Detection of High Curvature Points in Planar Curves
D. Chetverikov
- 10.40** Modelling Non-Linearities in Images Using an Auto-Associative Neural Network
F. Wehrmann, E. Bengtsson
- 11.00** Break

Segmentation

- 11.20** Support Vector Machines for Road Extraction from Remotely Sensed Images
N. Yager, A. Sowmya
- 11.40** Generalizing the Active Shape Model by Integrating Structural Knowledge to Recognize Hand Drawn Sketches
S. Al-Zubi, K. Tönnies
- 12.00** Automatic Segmentation of Diatom Images
A.C. Jalba, J.B.T.M. Roerdink
- 12.20** Unsupervised Segmentation Incorporating Colour, Texture, and Motion
T. Brox, M. Rousson, R. Deriche, J. Weickert
- 12.40** Image Segmentation Based on Transformations with Reconstruction Criteria
I.R. Terol-Villalobos, J.D. Mendiola-Santibañez
- 13.00** Lunch

14.00 Poster session (3)

- 15.30** Break

- 16.00** Invited talk: Recognizing Persons by their Iris Patterns
J. Daugman

Classification (2)

- 16.40** Adaptive Segmentation of Remote-Sensing Images for Aerial Surveillance
S.W. Baik, S.M. Ahn, J.W. Lee, K.K. Win
- 17.00** Design of a Multilayered Feed-Forward Neural Network Using Hypersphere Neurons
V. Banarier, C. Perwass, G. Sommer
- 17.20** Analytical Decision Boundary Feature Extraction for Neural Networks with Multiple Hidden Layers
J. Go, C. Lee
- 17.40** Closing

- 36** Classifying Sketches of Animals Using an Agent-Based System
G. Mackenzie, N. Alechina
- 37** Iris Recognition for Iris Tilted in Depth
C.-N. Chun, R. Chung
- 38** Spectral Clustering of Graphs
B. Luo, R.C. Wilson, E.R. Hancock
- 39** Detecting and Classifying Road Turn Directions from a Sequence of Images
A.P. Leitão, S. Tilie, S.-S. Ieng, V. Vigneron
- 40** Classification of Connecting Points in Thai Printed Characters by Combining Inductive Logic Programming with Backpropagation Neural Network
L. Pipanmaekaporn, A. Sachdev
- 41** A New Fisher-Based Method Applied to Face Recognition
C.E. Thomaz, D.F. Gillies
- 42** A Face Processing System Based on Committee Machine: The Approach and Experimental Results
K.-F. Jang, H.-M. Tang, M.R. Lyu, I. King
- 43** Multi-Class Support Vector Machines with Case-Based Combination for Face Recognition
J. Ko, H. Byun
- 44** Partial Faces for Face Recognition: Left vs Right Half
S. Gutta, H. Wechsler
- 45** Face Recognition by Fisher and Scatter Linear Discriminant Analysis
M. Bober, K. Kucharski, W. Skarbek
- 46** Optimizing Eigenfaces by Face Masks for Facial Expression Recognition
C. Frank, E. Nöth
- 47** Polyhedral Scene: Mosaic Construction from 2 Images Taken under the General Case
Y. He, R. Chung
- 48** Super-Resolution Capabilities of the Hough-Green Transform
V. Shapiro
- 49** Interpolating Camera Configurations
L. Noakes
- 50** Weighted Thin-Plate Spline Image Denoising
R. Kašpar, B. Zitová
- 51** Conditions of Similarity between Hermite and Gabor Filters as Models of the Human Visual System
C.J. Rivero-Moreno, S. Bres
- 52** Offset Smoothing Using the USAN's Principle
G. Gallo, A. Lo Giuoco
- 53** Object Classification and Tracking in Video Surveillance
Q. Zang, R. Klette