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Proceedings of

# **MVA'98**

**IAPR Workshop on  
Machine Vision Applications**

**NOVEMBER 17-19, 1998  
Makuhari, Chiba, JAPAN**



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Sponsored by  
IAPR MVA Organizing Committee  
University of Tokyo  
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# **Proceedings of IAPR Workshop on Machine Vision Applications**

**November 17–19, 1998**

**Fujitsu Makuhari Lab., Chiba, Japan**



**MVA'98**

Machine  
Vision  
Applications

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## IAPR WORKSHOP ON MACHINE VISION APPLICATIONS

November 17–19, 1998  
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## Message from the Workshop Chairs

It is our great pleasure to welcome all of you to the IAPR's 1998 Workshop on Machine Vision Applications (IAPR MVA '98). This workshop is co-sponsored by IAPR, Fujitsu Ltd., The University of Tokyo and Science University of Tokyo. This is the sixth workshop since the first one, which was held in Tokyo, 1988.

It is also the 10th anniversary of Workshop on Machine Vision Applications, which is held every two years. In order to celebrate this, we have selected several outstanding papers from those presented in the 1988 workshop; we consider these papers to be most influential to the field in Machine Vision. This set of papers includes: [1] Architecture of a High-Performance Image Processing System by H.Takenaga, Y.Kobayashi, M.Takatoo, Y.Okuyama, S.Miura, T.Fukushima, K.Asada and K.Fujiwara, JAPAN [2] A High Speed Image Processing System Utilized in Autonomous Vehicle Guidance by V.Graefe and K-D.Kuhnert, FRG [3] Precise Visual Inspection Algorithm for LSI Wafer Patterns Using Grayscale Image Comparison by Y.Matsuyama, H.Iwata, H.Kubota and Y.Nakagawa, JAPAN [4] A New Scheme for Practical Flexible and Intelligent Vision Systems by N.Otsu and T.Kurita, JAPAN [5] Range Image Processing 3D Range Images by T.Fujita, K.Sato and S.Inokuchi, JAPAN.

We have received more than 196 extended abstracts from 30 countries. Among them, 136 papers have been selected for oral or poster presentations. Unfortunately, however, some excellent papers have not been accepted due to the limitation of presentation slots. In addition to the accepted papers, three distinguished researchers have been invited to give presentations. We thank those three speakers: Prof. Volker Graefe, Prof. Seiji Inokuchi and Prof. Roberto Cipolla, for accepting our invitation.

Traditionally, the area of vision applications is limited to robotics and inspection. Recently, graphics, multi-media, and geospatial applications (such as ITS and remote sensing) have emerged as new application areas. This MVA'98 workshop reflects this increase in applications; papers on these new application areas have dramatically increased. As a result, several workshop sessions are devoted to graphics, multi-media, and geospatial applications. We hope that, from this workshop, the participants can both acquire knowledge of new activities in these research areas and also deepen their understanding of the traditional ones.

Organizing a workshop is a challenging job. We would like to express our gratitude to the members of the MVA Organizing Committee who have done such a superb job of organizing the MVA'98 workshop so successfully. We also extend our sincere thanks to Fujitsu Ltd. for offering this excellent conference facility as our workshop site.

Lastly, we express our hearty gratitude to all participants, and we hope that this workshop will be an informative and memorable one to all participants.

Welcome to MVA'98.



Mikio Takagi  
Co-Chair, MVA'98  
Science University of Tokyo



Shigeru Sasaki  
Co-Chair, MVA'98  
Fujitsu Laboratories Ltd.



Katsushi Ikeuchi  
Program Chair, MVA'98  
University of Tokyo



# TABLE OF CONTENTS

Tuesday, November 17, 1998

## Session 1: Image

1-1	Enhanced Vision for the Teleoperator of an All-Terrain Fast Mobile Robot .....	1
	C.Tavanti* and J.Devars**, *GIAT Industries, **Univ. of Paris 6, France	
1-2	Feature-Based Image Mosaicing.....	5
	N.Chiba, H.Kano, M.Higashihara, M.Yasuda and M.Osumi, Sanyo Electric Co.,Ltd., Japan	
1-3	Randomized Adaptive Algorithms for Mosaicing Systems .....	11
	F.Nielsen, Sony Computer Science Laboratory Inc., Japan	
1-4	Oriented Hausdorff Similarity Measure for Object Matching .....	15
	D-G.Sim and R-H.Park, Sogang Univ., Korea	
1-5	Acquiring a Radiance Distribution to Superimpose Virtual Objects onto Real Scene .....	19
	I.Sato, Y.Sato and K.Ikeuchi, Univ. of Tokyo, Japan	

## Session 2: Intelligent Transportation Systems & Navigation

2-1	A Video-based System Methodology for Detecting Red Light Runners .....	23
	A.H.S.Lai and N.H.C.Yung, Univ. of Hong Kong, Hong Kong	
2-2	A Novel Lane Model for Lane Boundary Detection.....	27
	Y.Wang, D.Shen, E.K.Teah and H.Wang, Nanyang Technological Univ., Singapore	
2-3	Detection of the Front Vehicle from the Stereoscopic Image Using Hierarchy Process .....	31
	N.Tsunashima and M.Nakajima, Keio Univ., Japan	
2-4	Integrated Vision/Control System for Autonomous Planetary Rovers .....	34
	T.Huntsberger, T.Kubota and J.Rose, Univ. of South Carolina, USA	
2-5	Autonomous Robot Navigation by Active Visual Motion Analysis and Understanding.....	38
	S.S.Park and A.Sowmya, Univ. of New South Wales, Australia	

## Session 3: Poster Session 1

3-1	Generation and Update of 3D-City Models from Maps and Elevation Data .....	42
	U.Stilla, R.Geibel and E.Repasi, Research Institute for Processing and Pattern Recognition, Germany	

3-2	<b>Clustering of Learning Images and Generation of Multiple Prototypes for Object Recognition.....</b>	46
	J.Jia and K.Abe, Shizuoka Univ., Japan	
3-3	<b>Generation of Missing Medical Slices Using Morphing Technology.....</b>	50
	A.E.Hassanien, H.Karam, H.Akter and M.Nakajima, Tokyo Institute of Technology, Japan	
3-4	<b>Handwritten Chinese Character Segmentation Using Local Potential Threshold and Minimum Potential Search.....</b>	57
	M.Anegawa*, H.Kuroda*, S.Miyahara*, K.Tsuruhara**and A.Nakamura***, *Nagasaki Univ., **Nitsuko Corporation, ***Kumamoto Institute of Technology, Japan	
3-5	<b>An Efficient Matching Algorithm for Segment-Based Stereo Vision Using Dynamic Programming Technique.....</b>	61
	T.Ueshiba*, Y.Kawai*, Y.Sumi* F.Tomita* and Y.Ishiyama**, *Electrotechnical Laboratory, **Stanley Electric Co.,Ltd., Japan	
3-6	<b>Improved Disparity Estimation by Matching with an Adaptive Window .....</b>	65
	E.Izquierdo M., Univ. of Essex, UK	
3-7	<b>On a High-Speed Hough Transform Algorithm MRHT.....</b>	69
	K.Kato*, T.Endo**, K.Murakami***, T.Toriu** and H.Koshimizu****, *Gifu Univ., **Fujitsu Laboratories Ltd., ***Aichi Pref. Univ., ****Chukyo Univ.,Japan	
3-8	<b>A System for Extracting Aesthetic Information from Architectural Drawings .....</b>	73
	K.Terzidis, Univ. of California at Los Angeles, USA	
3-9	<b>An Approach to Vehicle Recognition Using Supervised Learning .....</b>	77
	T.Kato and Y.Ninomiya, Toyota central R&D Labs., Inc., Japan	
3-10	<b>A Method of Robust Seam Feature Detection from Profiles for Robotic Sealing.....</b>	81
	K.Arakawa*, T.Kakizaki* and S.Omyo**, *NTT Human Interface Laboratories, **Honda Engineering Co.,Ltd., Japan	
3-11	<b>Color Cell Image Segmentation Using Pyramidal Constraint Satisfaction Neural Network.....</b>	85
	F.Kurugöllü* and B.Sankur**, *TUBITAK Marmara Research Center, **Boğaziçi Univ., Turkey	
3-12	<b>New Design and Implementation of On-Sensor-Compression.....</b>	89
	T.Hamamoto*, Y.Ohtsuka** and K.Aizawa**, *Science Univ. of Tokyo, **Univ. of Tokyo, Japan	
3-13	<b>Contour-Based Person Localization by 3D Neural Fields and Steerable Filters.....</b>	93
	A.Corradiini, U-D.Braumann, H-J.Boehme and H-M.Gross, Technical Univ. of Ilmenau, Germany	

3-14	A Novel Application of Real-Time Face Tracking and Microphones Array to Pick up Human Voice Remotely and Clearly.....	97
	H.Mizoguchi, T.Shigehara, M.Yokoyama and T.Mishima, Saitama Univ., Japan	
3-15	Automatic Seal Verification by Calculating Distance Between 2D and 3D Patterns .....	98
	T.Horiuchi*, and N.Yamaguchi**, *Iwate Prefectural Univ., **Univ. of Tsukuba, Japan	
3-16	Detection of Curvilinear Structures Using the Euclidean Distance Transform .....	102
	J-H.Jang and K-S.Hong, POSTECH, Korea	
3-17	Book Recognition from Color Images of Book Shelves .....	106
	Y.Akiyama and M.Ito, Kogakuin Univ., Japan	
3-18	Proposal of Query by Short-Time Action Descriptions in a Scene.....	111
	H.Miyamori*, T.Echigo** and S.Iisaku*, *Ministry of Posts and Telecommunications, **IBM Research, Japan	
3-19	A Computed Imaging System Using Wavelets Sampling Model.....	115
	H.Du*, N.Tayama*, M.Daibo*, T.Hasegawa** and K.Seki*, *Iwate Univ., **Iwate Industrial Univ., Japan	
3-20	Stable Gesture Verification in Eigen Space .....	119
	S.Hiratsuka*, K.Ohba**, S.Kajikawa***, H.Inooka* and K.Tanie**, *Tohoku Univ., **Mechanical Engineering Laboratory, ***Miyagi National Collage of Technology, Japan	
3-21	Genetic Hough Transform for Curves Detection.....	123
	Y.D.Wang* and N.Funakubo**, *Media Drive Corporation, **Tokyo Metropolitan Institute of Technology, Japan	
3-22	Automatic Reconstruction of 3D Human Face from CT and Color Photographs .....	127
	A.M.Haider and T.Kaneko, Toyohashi Univ. of Technology, Japan	
3-23	Optimum Design Parameters of the Classifiers for Omni-Font Machine-Printed Numeral Recognition Based on the Minimum Classification Error Criterion .....	131
	K.Marukawa, K.Nakashima, H.Shinjo Y.Shima and H.Fujisawa, Hitachi, Ltd., Japan	
3-24	Single Lens Stereo with a Biprism .....	136
	D.H.Lee*, I.S.Kweon** and P.Cipolla**, *KAIST, **Univ. of Cambridge, Korea	
3-25	Parallel Vision Computing on a Network of Workstation Clusters.....	140
	J.You, A.Sattar and L.Vlavic, Griffith Univ., Australia	
3-26	Gradient Estimation in Uncertain Data.....	144
	F.de Jong, L.J.van Vliet and P.P.Jonker, Delft Univ. of Technology, Netherlands	

3-27	<b>An Application Model for Scientific Visualization in Hydrologic Basins Management .....</b>	148
	E.S.Carvalho, Universidade de Trás-os-Montes e Alto Douro, Portugal	
3-28	<b>A System for Automated Generation of Deformed Maps .....</b>	149
	H.Honda*, K.Yamamori**, K.Kajita**, and J.Hasegawa*, *Chukyo Univ., **Oki Technosystems Laboratory, Inc., Japan	
3-29	<b>A Crack Detection Method in Road Surface Images Using Morphology .....</b>	154
	N.Tanaka and K.Uematsu, Kobe Univ. of Mercantile Marine, Japan	
3-30	<b>A Hierarchical Method of Recognizing Plant Species by Leaf Shapes .....</b>	158
	C.Im*, H.Nishida** and T.L.Kunii***, *Univ. of Tokyo, **Ricoh Co.,Ltd., ***Hosei Univ., Japan	
3-31	<b>Fuzzy Color-space Based Segmentation Algorithm on Medical Image.....</b>	162
	P.Shi and S.Pengfei, Shanghai Tong Univ., China	
3-32	<b>Fuzzy Logic Based Satellite Image Classification: Generation of Fuzzy Membership Function and Rule from Training Set.....</b>	163
	W.Park and H-K.Lee, Korea Adv. Institute of Sci. and Tech, Korea	

#### Session 4: Invited Talk 1

Machine Vision for Intelligent Robots.....	167
Prof. Rainer Bischoff & Volker Graefe*, Institute of Measurement Science, Bundeswehr Univ. Munich	

#### Session 5: Factory Automation

5-1	<b>Hybrid Defect Detection Method Based on Shape Measurement and Feature Extraction for Complex Patterns.....</b>	177
	H.H.Kobayashi, Y.Hara, H.Do, K.Takai and A.Sumiya, Hitachi Ltd., Japan	
5-2	<b>Fast Search Algorithms for IC Printed Mark Quality Inspection.....</b>	183
	M-C.Chang*, H-Y.Chen** and C-S.Fuh*, *National Taiwan Univ., **Industrial Technology Research Institute, Taiwan	
5-3	<b>Feature Extraction for Electronic Equipment Manufacturing.....</b>	189
	P.Marino, M.A.Dominguez, Univ. of Vigo, Spain	
5-4	<b>A Way to Exploit Highlights in Metallic Environment for Pipes Localization .....</b>	195
	C.Awanzino*, L.Letellier**, J.M.Lavest*, M.Dhome* and C.Faye***, *Univ. Blaise Pascal, **CEA-LETI, ***ENSEA-ETIS, France	
5-5	<b>Integrated Techniques for Self-Organisation, Sampling, Habituation, and Motion-Tracking in Visual Robotics Applications .....</b>	199
	M.W.Peters and A.Sowmya, Univ. of New South Wales, Australia	

## Wednesday, November 18, 1998

### Session 6: Feature Extraction

6-1	Contour Tracer for a Fast and Precise Edge-Line Extraction .....	203
	C.Robl, Dr.-Ing.G.Färber, Technische Universität München, Germany	
6-2	Gray Level Corner Detection .....	207
	H.Wang, Z.Zheng and E.K. Teoh, Nanyang Technological Univ., Singapore	
6-3	Flexible Features in Texture with Similarity.....	211
	J.Kuan, D.Joyce and P.Lewis, Univ. of Southampton, UK	
6-4	A Practical Method to Recognize a Flat Object Using a Combination of Intensity Profiles .....	216
	Y.Okamoto and E.Tanaka, Toshiba Corporation, Japan	

### Session 7: Geographic Information System

7-1	A Map-Based Approach to Extracting Object Information from Aerial Images.....	220
	Y.Ogawa, K.Iwamura and S.Kakumoto, Hitachi, Ltd., Japan	
7-2	Modeling of Urban Scenes by Aerial Photographs and Simply Reconstructed Buildings.....	224
	K.Kamei*, W.Hoy**, T.Tamada*, K.Seo*, *Mitsubishi Electric Corporation, **Univ. of British Columbia, Japan	
7-3	3D Reconstruction of Buildings and Vegetation from Synthetic Aperture Radar (SAR) Images .....	228
	M.Kirscht and C.Rinke, Universitat Hannover, Germany	
7-4	Reconstruction Textured Urban 3D Model by Fusing Ground-Based Laser Range Image and CCD Image .....	232
	H.Zhao and R.Shibasaki, Univ. of Tokyo, Japan	
7-5	Image Sequence Retrieval for Forecasting Weather Radar Echo Pattern .....	238
	K.Otsuka*, T.Horikoshi* and S.Suzuki**, * NTT Human Interface Laboratories, **NTT Multimedia Business Department, Japan	

### Session 8: Poster Session 2

8-1	Automatic Judgement of Spinal Deformity from Moire Images Employing Asymmetry of Local Centroids Location.....	242
	H.S.Kim*, K.Ishida*, S.Ishikawa* and Y.Ohtsuka**, *Kyushu Institute of Technology, **National Sanatorium Chiba Higashi Hospital, Japan	
8-2	Cracks and Displacement Feature Extraction of the Concrete Block Surface.....	246
	S-H.Cho, K.Hisatomi and S.Hashimoto, Waseda Univ., Japan	

8-3	<b>Automatic Prostate Cancer Grading System Based on 3-D Histopathological Images .....</b>	250
	P.S.U.Adiga and B.B.Chaudhuri, Indian Statistical Institute, India	
8-4	<b>Real time visual servoing around a complex Object .....</b>	254
	F.Berry, P.Martinet and J.Gallice, Université Blaise Pascal de Clermont Ferrand, France	
8-5	<b>2-D Non-Separable Wavelet Bases for Texture Classification with Genetic Feature Selection .....</b>	258
	B.Y.Liao*, J.S.Pan*, J.W.Wang** and L.Hon*, *National Kaohsiung Institute of Technology, **National Cheng Kung Univ., Taiwan	
8-6	<b>Improvement in Accuracy of Respiration Pattern Detection on Visual Sensing System.....</b>	262
	Y.Miyake*, K.Ishihara*, H.Shinmori*, H.Otsuka*, H.Nakai**, M.Watanabe**, K.Takada***, K.Yamashita**** and T.Araki****, *Ehime Univ., **Toshiba Co., ***Toshiba Eng., ****Graduate Sc. of Eng., Japan	
8-7	<b>Localization Based on the Gradient Information for DEM matching.....</b>	266
	D-G.Sim and R-H.Park, Sogang Univ., Korea	
8-8	<b>An Efficient Technique for Motion Recovery Based on Multiple Views .....</b>	270
	J.K.Tan, S.Kawabata and S.Ishikawa, Kyushu Institute of Technology, Japan	
8-9	<b>Auto-Calibration of a Rotating and Zooming Camera .....</b>	274
	Y.Seo and K-S.Hong, Pohang Univ. of Science and Technology, Korea	
8-10	<b>Seafloor Texture Classification with a Multiscale Discriminant Analysis on High Resolution Sonar Images .....</b>	278
	J.Lemoine, C.Collet, French Naval Academy, France	
8-11	<b>An Extended Geometric Approach in Active Vision to Detect and Eliminate Specularity in Shiny Colored Objects.....</b>	282
	P.Gunaratne and Y.Sato, Nagoya Institute of Technology, Japan	
8-12	<b>Detection of Crowds of People by Use of Wavelet Features and Parameter Free Statistical Models .....</b>	286
	D.Faulhaber, H.Niemann and P.Weierich, Bavarian Research Center for Knowledge Based Systems (Forwiss), Germany	
8-13	<b>Orientation and Scale Invariant Text Region Extraction in WWW Images .....</b>	290
	T.Park, D.Kim and K.Chung, Soongsil Univ., Korea	
8-14	<b>A New Approach to Minimize the Energy of Deformable Contours .....</b>	294
	E.de la Fuente, F.M.Trespaderne and J.R.Pefan, Univ. of Valladolid, Spain	
8-15	<b>Extraction of Character Strings from House Maps.....</b>	297
	T.Simasaki and T.Watanabe, Nagoya Univ., Japan	
8-16	<b>Acquiring 3D Model of Object by Motion-Stereo .....</b>	301
	C.Wang and K.Sakaue, ETL, Japan	

8-17	A Morphological Approach to Fish Discrimination.....	306
	Y.Nagashima*, T.Ishimatsu**, *Sasebo National College of Technology, **Nagasaki Univ., Japan	
8-18	Texture Image Segmentation Using Wavelet Filters and Cellular Neural Network.....	310
	G.Liu and S.Oe, Univ. of Tokushima, Japan	
8-19	Detection of Building Changes from Aerial Imageries Through Information Fusion .....	314
	W.Lu, T.Doihara and Y.Matsumoto, Asia Air Survey Co.,Ltd., Japan	
8-20	Image Analysis by a Parallel System for Computer Vision Applications .....	318
	A.M.L.Lamole, Faculté des Sciences de Guadeloupe, France	
8-21	Mobile Motion-Tracking System for Rescue Work at Destroyed Buildings .....	319
	T.Matsumoto and Y.Kitagawa, Hyogo Prefectural Institute of Industrial Research, Japan	
8-22	Error Sources and Error Reduction in Gradient-Based Method with Local Optimization .....	323
	A.Osa, L.Zhang and H.Miike, Yamaguchi Univ., Japan	
8-23	Cooperative Relaxation Algorithm of Range Images Using Surface Curvatures .....	327
	E-J.Lee*, K-H.Hyun**, G. Min***, K-R. Kwon**** and I-G.Jeong*****, *Tongmyong Univ. of Information Technology, **Youngsan Univ., ***KBS, ****Pusan Univ. of Foreign Studies, *****Yecheon Junior College, Korea	
8-24	Intensity Calibration for Stereo Images Based on Segment Correspondence.....	331
	Y.Kawai and F.Tomita, Electrotechnical Laboratory, Japan	
8-25	Robust Extraction of 3D Structures by Fusion of Intensity-Based and Contour-Based Junction Features.....	335
	M.Mokhtari, A.Bubel and R.Bergevin, Laval Univ., Canada	
8-26	The Automatic Detection and Recognition of Objective Parts in Real-World Building Image .....	339
	J.Haomin and M.Sakauchi, Univ. of Tokyo, Japan	
8-27	Model Management in the System Generating Vision Inspections .....	343
	M.Krčmář and P.Kodl, Rockwell Automation Ltd., Czech Republic	
8-28	Smart Ultrasonic Vision System for Mobile Robots .....	347
	R.Kažys, L.Mažeika, R.Šliteris and L.Svilainis, Kaunas Univ. of Technology, Lithuania	
8-29	Neural Network Based Handwritten Character Recognition for Conflict Resolution .....	351
	K.V.Prema and N.V.S.Reddy, Univ. of BDT College of Engineering, India	

8-30 Recognizing Buildings in Urban Scene of Distant View .....	355
P.Liu, K.Ikeuchi and M.Sakauchi, Univ. of Tokyo, Japan	

#### **Session 9: Invited Talk 2**

Recent Trend of Development and Application in Range Imaging .....	359
Prof.Seiji Inokuchi, Osaka Univ.	

#### **Session 10: Recognition and Reconstruction**

10-1 Adaptive Color Structured Light.....	367
D.Caspi, N.Kiryati and J.Shamir, Tel Aviv Univ., Israel	
10-2 Successive Pose Clustering for Steroscopic Object Recognition.....	371
T.Shakunaga and T.Ohno, Okayama Univ., Japan	
10-3 Facet Matching from an Uncalibrated Pair of Images .....	376
L.Theiler and H.Chabbi, Univ. of Fribourg, Switzerland	
10-4 3D Fundus Shape Reconstruction and Display From Stereo Fundus Images .....	380
K.Deguchi, D.Kawamata, K.Mizutani, H.Hontani and K.Wakabayashi, Univ. of Tokyo, Japan	
10-5 3D Reconstruction of Skin Surface from Image Sequence .....	384
T.Yamada, H.Saito and S. Ozawa, Keio Univ., Japan	

**Thursday, November 19, 1998**

#### **Session 11: Architecture**

11-1 A New Image Sensor with Space Variant Sampling Control on a Focal Plane.....	388
Y.Ohtsuka, T.Hamamoto, K.Aizawa and M.Hatori, Univ. of Tokyo, Japan	
11-2 A Light Adaptive 4000 Pixels Analog Silicon Retina for Edge Extraction and Motion Detection.....	392
G.Sicard*, G.Bouvier* and A.Lelah**, *Institut National Polytechnique de Grenoble,**Centre National d'Etudes des Télécommunications , France	
11-3 On the Synthesis of a Controller for Handling Borders in Systolic Architectures for 1-D Discrete Wavelet Transform .....	396
M.Ferretti and D.Rizzo,DIS-Univ. of Pavia, Italy	
11-4 Design and Realisation of a Parallel Systolic Architecture Dedicated to Aerial Image Matching .....	402
E.E.Pissaloux*, F.Le Coat*, P.Bonnin, **A.Tissot***, F.Durbin**** and T.Garie****, *Université de Paris, **Université Paris 13 , ***DRIF/DCRE/SEM, France	

11-5	<b>High Speed 3D Reconstruction by Video Image Pipeline Processing and Division of Spatio-Temporal Space .....</b>	406
	Y.Kameda, T.Taoda and M.Minoh, Kyoto Univ., Japan	

### Session 12: Motion

12-1	<b>Pointwise "Flow" from a Variational Principle .....</b>	410
	H.P.Trivedi, Defence Evaluation & research agency, UK	
12-2	<b>Visual Feature Tracking with Automatic Motion Model Switching.....</b>	414
	P.Tissainayagam and D.Suter, Monash Univ., Australia	
12-3	<b>Optical Flow-Based Person Tracking by Multiple Cameras.....</b>	418
	H.Tsutsui, J.Miura and Y.Shirai, Osaka Univ., Japan	
12-4	<b>Moving Object Detection from MPEG Coded Picture.....</b>	422
	S.Mitsumoto, H.Yuasa and H.Zen, Tokyo Univ. of Mercantile Marine, Japan	
12-5	<b>Optimal Homography Computation with a Reliability Measure .....</b>	426
	K.Kanatani, Gunma Univ., Japan	

### Session 13: Poster Session 3

13-1	<b>A Comparison of Linear Processor Arrays for Image Processing.....</b>	430
	M.van der Molen and P.Jonker, Delft Univ. of Technology, Netherlands	
13-2	<b>Segmentation of Neurons Using.....</b>	435
	A.V.Dias*, C.W.Picanço-Diniz*, S.Gorçan**, *Federal Univ. of Pará, **Federal Univ. of São Carlos, Brazil	
13-3	<b>Segmentation of Handwritten Kanji Numerals Integrating Peripheral Information by Bayesian Rule .....</b>	439
	T.Kagehiro, M.Koga, H.Sako and H.Fujisawa, Hitachi,Ltd., Japan	
13-4	<b>Selection/Substitution of Visual Features for Object Tracking.....</b>	443
	A.Pasqual, K.Aizawa and M.Hatori, Univ. of Tokyo, Japan	
13-5	<b>An Interface for Visualizing Feature Space in Image Retrieval .....</b>	447
	Y.Musha*, A.Hiroike*, Y.Mori** and A.Sugimoto*, *Hitachi Ltd, **RWCP, Japan	
13-6	<b>A Novel Multilevel Thresholding Method Based on Finding the Consistent Peak of Correlation Function.....</b>	451
	M.Sezgin*, R.Tacaltin**, *Tübitak Marmara Research Center, **Istanbul Technical Univ., Turkey	
13-7	<b>Automatic Evaluation of the Appearance of Seam Puckles on Suits Using Fractal Dimensions .....</b>	455
	T.Aibara and T.Mabuchi, Hiroshima Institute of Technology, Japan	

13-8 Offset Vertical Stereo System for Real-Time Range-Finding to Preceding Vehicles .....	459
N.Miyazaki*, M.Shiohara*, T.Itoh* and S.Fukuyama**, *Fujitsu Laboratories Ltd., **Fujitsu Ten Ltd., Japan	
13-9 Reconstruction of Measurement Matrices for Recovering Shape and Motion from Long Image Sequences .....	463
Y-J.Huang and H.Nishida, Ricoh Co.Ltd, Japan	
13-10 A Driver Behaviour Evaluation System .....	467
A.B.Martinez and J.P.Arboleda, Universitat Politècnica de Catalunya, Spain	
13-11 Fast Prototyping of Image Processing Applications Using Functional Skeletons on a MIMD-DM Architecture .....	468
D.Ginhac, J.Serot and J.P.Derutin, Université blaise Pascal de Clermont Ferrand, France	
13-12 Image-based Control of Robot and Target Object Motions by Eigen Space Method.....	472
I.Takahashi and K.Deguchi, Univ. of Tokyo, Japan	
13-13 XR-US Data Fusion for Non-Destructive Evaluation of Steel Components .....	476
M.Ancis, A.Campus, D.D.Giusto and F.Tintrup, Univ. of Cagliari, Italy	
13-14 Matching of 3D Graphs for Human Motion Analysis.....	480
C.Yaniz and J.Rocha, Univ. of the Balearic Islands, Spain	
13-15 An Algorithm for Reducing Text Line Candidates of Incorrect Orientation .....	484
H.Goto and H.Aso, Tohoku Univ., Japan	
13-16 Curve Extraction Using Genetic Algorithm Based on Closeness and Continuity in Perceptive Grouping Factors .....	488
F.Saitoh, Iwate Prefectural Univ., Japan	
13-17 A Slanted Ellipse Detection by a Circle Detecting Hough Transform Using a Pair of Arc .....	494
Y.Asayama and M.Shiono, Okayama Univ. of Science, Japan	
13-18 A Method of Counting the Passing People by Using the Method of the Template Matching .....	498
K.Terada and N.Kurokawa, The Univ. of Tokushima, Japan	
13-19 Hierarchical Dictionary Constructing Method for the Parametric Eigenspace Method .....	502
T.Abe* and T.Nakamura**, *Japan Advanced Institute of Science and Technology, Hokuriku, **NTT Software Laboratories, Japan	
13-20 Average Grain Size Determination Using Mathematical Morphology and Texture Analysis .....	506
H.Rautio and O.Silvén, Infotech Oulu, Finland	

13-21 A Range Finder by Using a Rotary Cubic Mirror.....	510
K.Terada*, D.Yoshida* and J.Yamaguchi**, *Univ.of Tokushima, **Sogo Security Service Co.,Ltd, Japan	
13-22 Enhancement of 3D Information Acquisition from 2D Spatio-Temporal Image.....	514
C.Li, K.Ikeuchi and M.Sakauchi, Univ. of Tokyo, Japan	
13-23 Recognition of 3-D Object Shape and Forward Moving Distance by Monocular Motion Stereo for Mobile Robot .....	519
Y.Suga and N.Ohmori, Keio Univ., Japan	
13-24 3-D Objects Mapping Using Model and Image Based Approach .....	523
T.Shoji, E.Iwanari and Y.Okada, Ryukoku Univ., Japan	
13-25 Relaxation Algorithm for Detection of Face Outline and Eye Locations.....	527
H-J.Lee, D-G.Sim and R-H.Park, Sogang Univ., Korea	
13-26 Thin Film Magnetic Head Wafer Inspection Technique Using Geometrical Feature Based Image Comparison.....	531
A.Shimoda, H.Iwata, Y.Shibata and H.Ikeda, Hitachi Ltd., Japan	
13-27 Design and Implementation of Real Time System for Object Detection and Classification on Parallel Virtual Machine.....	535
T.L.Mengko, T.Adiono, H.Setyawan, R.Setiadarma and D.A.Hudiansyah, Bandung Institute Of Technology, Indonesia	
13-28 Localization of Objects in Noisy Scenes for Robotics Applications Using Wigner Distribution .....	539
V.G.Vaidya and R.Kaushal, Siemens Information Systems Ltd., India	
13-29 Vehicle Identification System by Automated Korean License Plate Reading.....	543
Y-K.Chi* and T-H.Cho**, *LG Industrial Systems R&D Center, **Korea Univ. of Technology, Korea	
13-30 Model Driven 3-D Shape Reconstruction by Matching Synthesized Images with Actual Images .....	547
H.Matsui*, Y.Nomura**and S.Fujii***, *Nagoya Univ., **Mie Univ., ***Dido Institute of Technology, Japan	
13-31 A Competitive Learning Algorithm for Color-Based Image Retrieval .....	551
M.Aitkbir, M.Jbilou and R.Benslimane, Université Sidi Mohamed Ben Abdellah, Morocco	
13-32 Registration of Complex Free-Form Objects from 3D Image Edge Using the Hausdorff Distance.....	555
A.Escobar and D.Laurendeau, Laval Univ., Canada	

#### **Session 14 Invited Talk 3**

3D Model Acquisition from Uncalibrated Images .....	559
Dr.Roberto Cipolla, Univ. of Cambridge	

## **Session 15: Face, Gesture and Signature**

15-1	Online Gesture Recognition Using Predicative Statistical Feature Extraction and Multivariate Analysis .....	569
	B.Raytchev*, O.Hasgawa** and N.Otsu*, *Tsukuba Univ., **ELT, Japan	
15-2	Vision-based Interpretation of Hand Gestures by Modeling Appearance Changes in Image Sequences .....	573
	Y.Zhu, Y.Huang, G.Xu, H.Ren and Z.Wen, Tsinghua Univ., China	
15-3	Learning Models of Animal Behaviour for a Robotic Sheepdog .....	577
	N.Sumpter*, A.J.Bulpitt*, R.Vaughan**, R.D.Tillett** and R.D.Boyle*, *Univ. of Leeds, **Silsoe Reserch Institute, UK	
15-4	Illumination Invariant Face Recognition Using Photometric Stereo .....	581
	S.C.Kee*, S.U.Lee *and K.M.Lee**, *Seoul National Univ., **Hong-IK Univ., Korea	
<b>**Late Arrival**</b>		
3-14	A Novel Application of Real-Time Face Tracking and Microphones Array to Pick up Human Voice Remotely and Clearly .....	585
	H.Mizoguchi, T.Shigehara, M.Yokoyama and T.Mishima, Saitama Univ., Japan	
13-10	A Driver Behaviour Evaluation System .....	589
	A.B.Martinez and J.P.Arboleda, Universitat Politèhnica de Catalunya, Spain	
<b>Author Index .....</b>		592