

Final Program

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IAPR CONFERENCE ON MACHINE VISION APPLICATIONS

May 16-18, 2005

Tsukuba Science City, JAPAN

Topics

Machine Vision and its Applications

Algorithms / Architectures / Applications
Factory Automation / Intelligent Transport Systems / Multimedia
Medical / Geographic Information Systems /
Human Computer Interaction / Wearable Computing / Security /
Robots / Digital Home Automation / Others

Conference Co-Chairs

Katsuhiko SAKAUE (AIST)

Mikio TAKAGI (Shibaura Institute of Technology)

Program Co-Chairs

Yoshinori KUNO (Saitama University)

In So KWEON (KAIST)

Sponsored by

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IAPR TC-8

National Institute of Advanced Industrial Science and Technology (AIST)

In cooperation with

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Institute of Electrical Engineers of Japan

Institute of Electronics, Information and Communication Engineers

Institute of Image Information and Television Engineers

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Final Program

Monday, May 16, 2005

Registration (8:30 — 9:00)

Opening Session (9:00 — 9:20)
Announcement of MVA Award

Session 1: Motion Analysis (9:20 — 10:40)
Chair: Heinrich Niemann, Mutsumi Watanabe

1-1 **Solving Motion Planes by Projection and Ring Integration**

Gaspard Petit and Sebastien Roy, Canada

1-2 **3-D Object Tracking with the Adaptive Hyperplane Approach Using SIFT Models for Initialization**

Christoph Graessl, Timo Zinsser, Ingo Scholz and Heinrich Niemann, Germany

1-3 **Fusing Color and Contour in Visual Tracking**

Pham Nam Trung, Wu Jian Kang and S. H. Ong, Singapore

1-4 **Appearance Tracker Based on Sparse Eigentemplate**

Takeshi Shakunaga, Yasuhara Matsubara and Kiyoshi Noguchi, Japan

Break (10:40 — 11:00)

Session 2: Invited Talk 1 (11:00 — 12:00)
Chair: In So Kweon

CHIL - Computers in the Human Interaction Loop

Prof. Alex Waibel
(Carnegie Mellon University, USA)

Lunch (12:00 — 13:00)

Session 3: Poster Session 1 (13:00 — 14:30)

3-1 **A Hyper-Resolution Scheme for Enhancement on a Down-Sampled Image**

Min-Cheng Pan, Taiwan

3-2 **Object Tracking with Spatio-Temporal Blob**

Catherine Achard, Ghiles Mostafaoui and Maurice Milgram, France

3-3 **On Describing Human Motions in an Eigenspace**

Satoshi Homan, Takehito Ogata, Joo Kooi Tan and Seiji Ishikawa, Japan

3-4 **Generating a Triangular Mesh Adapted for Shape Reconstruction from Images**

Atsutada Nakatsuji, Yasuyuki Sugaya and Kenichi Kanatani, Japan

3-5 **Construction of 3-D Paper-Made Objects from Crease Patterns**

Hiroshi Shimanuki, Jien Kato and Toyohide Watanabe, Japan

3-6 **Silhouette Extraction for Visual Hull Reconstruction**

Youngbae Hwang, Jun-Sik Kim and In So Kweon, Korea

3-7 **Practical 3-D measurement using Optimal Intensity-Modulated Projection and Intensity-Phase Analysis**

Genki Cho and Cunwei Lu, Japan

3-8 **A Goniophotometric System for Measuring Object Surface Reflection Using Robot Arms**

Akira Kimachi, Masataka Tatsumi, Norihiro Tanaka and Shoji Tominaga, Japan

3-9 **Calibration of HyperOmni Vision based on Conic Curve**

Tomohiro Mashita, Yoshio Iwai and Masahiko Yachida, Japan

3-10 **Robust Invariant Features for Object Recognition and Mobile Robot Navigation**

Zhe Lin, Sungho Kim and In So Kweon, Korea

3-11 **Tree Segmentation from an Image**

Chin-Hung Teng, Yung-Sheng Chen and Wen-Hsing Hsu, Taiwan

3-12 **Shape-Based Image Retrieval Using Support Vector Classification**

Wai-Tak Wong and Sheng-Hsun Hsu, Taiwan

3-13 **New Macrobloc Engine Architecture for Video Processing**

Trio Adiono, Dani Fitriyanto, Akhmad Mulyanto, Sumek Wisayataksin, Kazumasa Takeichi, Dongju Li, Tati R. Mengko and Hiroaki Kunieda, Indonesia

3-14 **Fast Discrete Wavelet Transformation Daubechies-Four Architecture**

Akhmad Mulyanto, Dani Fitriyanto, Tati R. Mengko and A. Z. R. Langi, Indonesia

3-15 **A New Automated Microtomy Concept for 3D Paper Structure Analysis**

Michael Donoser, Mario Wiltsche and Horst Bischof, Austria

3-16 **A Heterodyning Range Imager**

Michael J. Cree, Adrian A. Dorrington and Dale A. Carnegie, New Zealand

3-17 **Quality Control of Hazel Nuts Using Thermographic Image Processing**

Christina Warmann and Volker Märgne, Germany

3-18 **Automatic Wear Measurement of Ti-Based Coatings Milling via Image Registration**

Yu-Teng Liang, Yih-Chih Chiou and Chien-Jiong Louh, Taiwan

3-19 **An Approach for Defect Detection and Classification of the Yarn Ends for Splicing**

Khaled Issa and Hiroshi Nagahashi, Japan

3-20 **Multivariate Sparse Bayesian Regression and Its Application for Facial Feature Detection**

Yoshio Iwai and Roberto Cipolla, Japan

3-21 **Multi-View Human Head Detection in Static Images**

Maolin Chen, Gengyu Ma and Seokcheol Kee, China

3-22 **Face Recognition Using Local Features Based on Two-Layer Block Model**

Wonjun Hwang, Ji-Yeon Kim and Seokcheol Kee, Korea

3-23 **Probabilistic Framework for Intelligent Filming by Switching Temporarily Locked Pan-Tilt Cameras**

Hicham Bouchnaif, Yoshinari Kameda, Yasuhiro Mukaigawa and Yuichi Ohta, Japan

3-24 **Interactive Retrieval in Facial Image Database Using Self-Organizing Maps**

Zhirong Yang and Jorma Laaksonen, Finland

3-25 **Fast Detection of Multi-View Face and Eye Based on Cascaded Classifier**

Jung-Bae Kim, Seokcheol Kee and Ji-Yeon Kim, Korea

3-26 **Combining Computer Graphics and Image Processing for Low Cost Realistic 3D Face Generation and Animation**

Alexander Mark Woodward and Patrice Delmas, New Zealand

3-27 **Road and Traffic Sign Color Detection and Segmentation - A Fuzzy Approach**

Hasan Fleyeh, Sweden

3-28 **Vehicle Speed Estimation from Single Still Images Based on Motion Blur Analysis**

Huei-Yung Lin and Kun-Jih Li, Taiwan

3-29 **Detection of Pedestrian Crossing Using Bipolarity and Projective Invariant**

Mohammad Shorif Uddin and Tadayoshi Shioyama, Japan

3-30 **Building Classification of Terrestrial Images by Generic Geometric Hierarchical Cluster Analysis Features**

Gerd Brunner and Hans Burkhardt, Germany

3-31 **A Localization System Using Invisible Retro-reflective Markers**

Yusuke Nakazato, Masayuki Kanbara and Naokazu Yokoya, Japan

3-32 **Scene Change Detection Using Multi-Class Support Vector Machine with MPEG Encoding Information**

Mickael Pic and Takio Kurita, Japan

3-33 **Inter-Modal Learning and Object Concept Acquisition**

Katsuhiko Ishiguro, Nobuyuki Otsu and Yasuo Kuniyoshi, Japan

3-34 **Restoration of Images Stained with Waterdrops on a Protection Glass Surface by Using a Stereo Image Pair**

Yuu Tanaka, Atsushi Yamashita, Toru Kaneko and Kenjiro T. Miura, Japan

3-35 **A Study of Visual Attention System Based on Recognition Feedback for Image Sequence**

Makoto Ito, Yoshikazu Yano and Shigeru Okuma, Japan

3-36 **Personal Authentication Based on Hands Natural Layout**

Miguel Adán, Antonio Adán, Roberto Torres, Andrés S. Vázquez and Gloria Bueno, Spain

Session 4: Feature Extraction (14:30 — 16:10)

Chair: Tati R. Mengko, Hirobumi Nishida

4-1 **A Robust Active Contour Initialization and Gradient Vector Flow for Ultrasound Image Segmentation**

Clovis Tauber, Hadj Batatia and Alain Ayache, France

4-2 **Automatic Landmark Extraction Using Growing Neural Gas (GNG)**

Anastassia Angelopoulou, José García and Alexandra Psarrou, United Kingdom

4-3 **Robust Active Shape Model Using Ada Boosted Histogram Classifiers**

Yuanzhong Li and Wataru Ito, Japan

4-4 **GA-Based Affine PPM Using Matrix Polar Decomposition**

Mehdi Ezoji, Karim Faez, Majid Ziaratban and Saeed Mozaffari, Iran

4-5 **IPH: An Integrated Probabilistic Histogram for Measuring Image Similarity in HSV Color Space**

Tatsuyuki Kawamura, Takahiro Ueoka, Yutaka Kiuchi, Yasuyuki Kono and Masatsugu Kidode, Japan

Break (16:10 — 16:30)

Session 5: Range & 3D Analysis (16:30 — 18:10)

Chair: Volker Märgner, Kenichi Arakawa

5-1 **Dynamic Light Field Reconstruction and Rendering for Multiple Moving Objects**

Ingo Scholz, Christian Vogelgsang, Joachim Denzler and Heinrich Niemann, Germany

5-2 **Statistical Optimization for 3-D Reconstruction from a Single View**

Kenichi Kanatani and Yasuyuki Sugaya, Japan

5-3 **Markov Chain Monte Carlo Algorithms for 3D Ranging and Imaging**

Sergio Hernandez-Marin, Andrew M. Wallace and Gavin J. Gibson, United Kingdom

5-4 **Smooth Energy Auto-Estimation for Graph Cuts Algorithm**

Haibing Ren, Jiali Zhao and Seokcheol Kee, China

5-5 **Photometric Linearization Under Near Point Light Sources**

Satoshi Sato, Kazutoyo Takata and Kunio Nobori, Japan

Tuesday, May 17, 2005

Session 6: Applications in Industry (9:00 — 10:40)

Chair: Phillipe Bolon, Hiroshi Sako

6-1 **A Hierarchical Classification Method for US Bank Notes**

Tatsuhiko Kagehiro, Hiroto Nagayoshi and Hiroshi Sako, Japan

6-2 **Visual Characterization of Paper Using Isomap and Local Binary Patterns**

Markus Turtinen, Matti Pietikäinen and Olli Silvén, Finland

6-3 **Forensic Retrieval of Striations on Fired Bullets by Using 3D Geometric Data**

Atsuhiko Banno, Tomohito Masuda and Katsushi Ikeuchi, Japan

6-4 **A Hybrid Structural/Statistical Classifier for Handwritten Farsi/Arabic Numeral Recognition**

Saeed Mozaffari, Karim Faez and Majid Ziaratban, Iran

6-5 **Recognition of Character Strings Printed with Large Alignment Error**

Minenobu Seki, Toshikazu Takahashi, Takeshi Nagasaki, Hiroshi Shinjo and Katsumi Marukawa, Japan

Break (10:40 — 11:00)

Session 7: Invited Talk 2 (11:00 — 12:00)

Chair: Yoshinori Kuno

Cognitive Development in a Humanoid Robot

Prof. Giulio Sandini
(University of Genova, Italy)

Lunch (12:00 — 13:00)

Session 8: Poster Session 2 (13:00 — 14:30)

8-1 **Real-Time 2D Image Stabilization: Algorithmical Aspects and Parallel Implementation**

Fábio Dias, Jean Pierre Derutin and Lionel Domez, France

8-2 **View Distance Based Human Motion Analysis**

Murat Ekinci, Eyup Gedikli and Vasif Nabiyeve, Turkey

8-3 **Measuring the Shape of Sewer Pipes from Video**

Juho Kannala and Sami S. Brandt, Finland

8-4 **Architectural Reconstruction from Single or Multiple Uncalibrated Images**

Huei-Yung Lin, Syuan-Liang Chen and Jen-Hung Lin, Taiwan

- 8-5 **Passive Specular Surface Measurements from Virtual Images of Pattern Boards**
Kazuya Nagamine, Yu Suzuki and Minoru Ito, Japan
- 8-6 **Feature Point Matching of Stereo Images by Using a Projective Invariant**
Yusuke Ishida, Toshimitsu Tanaka, Noboru Sugie and Yuji Sagawa, Japan
- 8-7 **Add Cartesian Differential Invariants to Minimum Description Length Shape Models**
Shaoyu Wang, Feihu Qi and Huaqing Li, China
- 8-8 **Thresholding Based Detection of Fine and Sparse Details**
Alexander Drobchenko, Jarkko Vartiainen, Joni-Kristian Kämäräinen, Lasse Lensu and Heikki Kälviäinen, Finland
- 8-9 **Understanding Folding Process of Origami DrillBooks Based on Graphic Matching**
Takashi Terashima, Hiroshi Shimanuki, Jien Kato and Toyohide Watanabe, Japan
- 8-10 **A New Scheme for Image Recognition Using Higher-Order Local Autocorrelation and Factor Analysis**
Naoyuki Nomoto, Yusuke Shinohara, Takayoshi Shiraki, Takumi Kobayashi and Nobuyuki Otsu, Japan
- 8-11 **Vessel Segmentation in Angiograms Using Hysteresis Thresholding**
Alexandru-Paul Condurache and Til Aach, Germany
- 8-12 **An Artificial Emotion Imitator**
Do Hyoung Kim, Kwang Ho An and Myung Jin Chung, Korea
- 8-13 **Facial Expression Recognition in Continuous Videos Using Linear Discriminant Analysis**
Fadi Dornaika and Franck Davoine, Spain
- 8-14 **Novel Pose-Variant Face Detection Method for Human-Robot Interaction Application**
Taigun Lee, Sung-Kee Park and Mignon Park, Korea
- 8-15 **Head Pose Estimation Using Adaptively Scaled Template Matching**
Miki Yamada, Osamu Yamaguchi, Akiko Nakashima, Takeshi Mita and Kazuhiro Fukui, Japan
- 8-16 **Combining Model-Based Classifiers for Face Localization**
Rachid Belaroussi, Lionel Prevost and Maurice Milgram, France
- 8-17 **Hand Gestures Expressing Numbers and Its Application to Personal Identification**
Norifumi Machida and Tetsuji Kobayashi, Japan
- 8-18 **Particle Filter for Visual Tracking Using Multiple Cameras**
Ya-Dong Wang, Jian-Kang Wu and Ashraf A. Kassim, Singapore
- 8-19 **Pedestrian Detection and Identification Using Two Cameras**
Naoya Ohta and Anthony R. Dick, Japan
- 8-20 **Traffic Signs Color Detection and Segmentation in Poor Light Conditions**
Hasan Fleyeh, Sweden
- 8-21 **Heli-Tele: Road Extraction from Helicopter Video**
Fatih Porikli, Jie Shao and Hide Maehara, U.S. A
- 8-22 **Cognitive Vision for Autonomous Satellite Rendezvous and Docking**
Faisal Qureshi, Demetri Terzopoulos and Piotr Jasiobedzki, Canada
- 8-23 **Object Recognition Using Environmental Cues Mentioned Explicitly or Implicitly in Speech**
Md. Altab Hossain, Rahmadi Kurnia, Akio Nakamura and Yoshinori Kuno, Japan
- 8-24 **Motion Stabilization of Biped Robot by Gaze Control**
Shota Takizawa, Shun Ushida, Takayuki Okatani and Koichiro Deguchi, Japan
- 8-25 **Real-Time Transmission of 3D Video to Multiple Users via Network**
Takayoshi Koyama, Yasuhiro Mukaigawa, Yoshinari Kameda and Yuichi Ohta, Japan
- 8-26 **Regional Video Insertion Through Robust Region Tracking in the Presence of Occluding Objects**
Chang-Hwan Lee, Dae-Woong Kim and Ki-Sang Hong, Korea
- 8-27 **Fast Cross-Sectional Display of Large Data Sets**
Vincent J. Dercksen, Steffen Prohaska and Hans-Christian Hege, Germany
- 8-28 **A Preprint Dropout for Form Images Based on Line-Elimination and Image-Subtraction**
Yoshihiro Shima and Hiroshi Ohya, Japan
- 8-29 **Adaptive Vector Quantization of Sequences of Local Blocks for Video Surveillance System**
Mickael Pic and Takio Kurita, Japan
- 8-30 **Extraction of Finger-Vein Patterns Using Maximum Curvature Points in Image Profiles**
Naoto Miura, Akio Nagasaka and Takafumi Miyatake, Japan
- 8-31 **Personal Identification with Human Iris Recognition Based on Wavelet Transform**
Wen-Shiung Chen, Kun-Huei Chih, Sheng-Wen Shih and Chih-Ming Hsieh, Taiwan
- 8-32 **Thresholding, Noise Reduction and Skew Correction of Sinhala Handwritten Words**
M.L.M Karunanayaka, C.A Marasinghe and N.D Kodikara, Sri Lanka
- 8-33 **Modeling and Visualization of Rock Carving Cultural Heritage Sites in Dazu**
Chen Junfeng, Zhao Qingping and Li Bianru, China
- 8-34 **Using Orientation Code Difference Histogram (OCDH) for Robust Rotation-invariant Search**
Takahiro Urano, Shun'ichi Kaneko, Takayuki Tanaka and Munetoshi Imada, Japan
- Session 9: Sensors & Automation Systems (14:30 — 16:10)**
Chair: Hans Burkhardt, Atsuto Maki
- 9-1 **A 3D Measurement by Hand-Sweep Light Striping**
Tadashi Hyuga and Kosuke Sato, Japan
- 9-2 **High-speed and Cost Effective Machine Vision System within the Industry of Preserved Vegetables**
C. Fernandez, P.J. Navarro, J. Suardiaz, M. Jimenez and A. Iborra, Spain
- 9-3 **Contrast Optimization in a Multi-Windowing Image Processing Architecture**
François Berry and Pierre Chalimbaud, France
- 9-4 **Detection of Irregularities in Regular Dot Patterns**
Albert Sadovnikov, Jarkko Vartiainen, Joni-Kristian Kämäräinen, Lasse Lensu and Heikki Kälviäinen, Finland
- 9-5 **Skeletons and Asynchronous RPC for Embedded Data- and Task Parallel Image Processing**
Wouter Caarls, Pieter Jonker and Henk Corporaal, Netherlands
- Break (16:10 — 16:30)**
- Session 10: Intelligent Transport Systems (16:30 — 18:10)**
Chair: Sukhan Lee, Hiroaki Nakai
- 10-1 **On Road Simultaneous Vehicle Recognition and Localization by Model Based Focused Vision**
Noel Trujillo, Roland Chapuis, Frederic Chausse and Christophe Blanc, France

- 10-2 **Vehicle Occlusion Identification System by Perceptive Roadway Modeling**
Wen-Fong Hu, Yung-Sheng Chen and Jui-Wei Hsieh, Taiwan
- 10-3 **A Reliable and Robust Lane Detection System based on the Parallel Use of Three Algorithms for Driving Safety Assistance**
J. Douret, R. Labayrade, Jean Laneurit and Roland Chapuis, France
- 10-4 **Pedestrian Detection by Boosting Soft-Margin SVM with Local Feature Selection**
Kenji Nishida and Takio Kurita, Japan
- 10-5 **Estimation of FOE Without Optical Flow for Vehicle Lateral Position Detection**
Tomoaki Teshima, Hideo Saito, Shinji Ozawa, Keiichi Yamamoto and Tohru Ihara, Japan
- 13-4 **Extraction of 3D Planar Primitives from Raw Airborne Laser Data: a Normal Driven RANSAC Approach**
Frederic Bretar and Michel Roux, France
- 13-5 **3D Reconstruction of Manufactured Parts Using a Bi-Directional Stereovision-Based Contour Matching and Comparison of Real and Synthetic Images**
Aïcha Beya Far, Sophie Kohler and Ernest Hirsch, France
- 13-6 **Automatic 3D Face Modeling with Single Image and Perspective Projection Model**
Haibing Ren, Kyung-ah Sohn and Seokcheol Kee, China
- 13-7 **Using Non-negative Sparse Profiles in a Hierarchical Feature Extraction Network**
Ingo Bax, Gunther Heidemann and Helge Ritter, Germany
- 13-8 **Image-Based Rendering Using Plane-Sweeping Modelisation**
Vincent Nozick, Sylvain Michelin and Didier Arquès, France
- 13-9 **Moment-derived Object Models for Vectorization**
Mingyan Shao, Daniel E. Crispell and Robert P. Futrelle, USA
- 13-10 **Criterion for Automatic Selection of the Most Suitable Maximum-Likelihood Thresholding Algorithm for Extracting Object from their Background in a Still Image**
Geovanni Martinez, Costa Rica
- 13-11 **An Improved Growing Deformable Surface Patches Model for Analysis of Medical Images**
Xujian Chen and Eam Khwang Teoh, Singapore
- 13-12 **Computer-Assisted Diagnosis and Monitoring of Periodontal Diseases**
C. C. Leung, F. H. Y. Chan, K. Y. Zee and P. C. K. Kwok, Hong Kong
- 13-13 **Higher-Dimensional Segmentation by Minimum-Cut Algorithm**
Hiroshi Ishikawa and Davi Geiger, Japan
- 13-14 **Fixed-Center Pan-Tilt Projector and Its Calibration Methods**
Ikuhisa Mitsugami, Norimichi Ukita and Masatsugu Kidode, Japan
- 13-15 **Detecting Faces in Low-Resolution Images**
Shinji Hayashi and Osamu Hasegawa, Japan
- 13-16 **A Novel Spatially Confined Non-Negative Matrix Factorization for Face Recognition**
HF Neo, BJ Teoh and CL Ngo, Malaysia
- 13-17 **Hand Pose Detection for Vision-Based Gesture Interfaces**
Luis Antón-Canalís, Elena Sánchez-Nielsen and M. Castrillón-Santana, Spain
- 13-18 **Vision-Based Sign Language Processing Using a Predictive Approach and Linguistic Knowledge**
Boris Lenseigne and Patrice Dalle, France
- 13-19 **Preceding Vehicle Detection Using Stereo Images and Non-Scanning Millimeter-Wave Radar**
Eigo Segawa, Morito Shiohara, Shigeru Sasaki, Norio Hashiguchi, Tomonobu Takashima and Masatoshi Tohno, Japan
- 13-20 **Detection of the Road Area at the Ordinary Road**
Madoka Otuka, Kenichi Kamino and Tameharu Hasegawa, Japan
- 13-21 **Fast Quality Measurement of a H263+ Video Stream for Teleoperating a HRP-2 Humanoid Robot**
Olivier Stasse, Neo Ee Sian, Kazuhito Yokoi, Gabriel Dauphin and Patrick Bonnin, Japan
- 13-22 **Robust Horizon and Peak Extraction for Vision-Based Navigation**
Ji Hwan Woo, In So Kweon, Gwan Sung Kim and In Cheol Kim, Korea

Wednesday, May 18, 2005

Session 11: Face Image Analysis (9:00 — 10:40)

Chair: Ben Tordoff, Kunio Nobori

- 11-1 **Face Recognition Using SVM Fed with Intermediate Output of CNN for Face Detection**
Katsuhiko Mori, Masakazu Matsugu and Takashi Suzuki, Japan
- 11-2 **Robust Face Recognition under Various Illumination Conditions**
Atsushi Matsumoto, Nobutaka Shimada, Takuro Sakiyama, Jun Miura and Yoshiaki Shirai, Japan
- 11-3 **3D Facial Feature Location with Spin Images**
Cristina Conde, Roberto Cipolla, Licesio Licesio J. Rodríguez-Aragón, Ángel Serrano and Enrique Cabello, Spain
- 11-4 **Generating High-Definition Facial Video for Shared Mixed Reality**
Masayuki Takemura and Yuichi Ohta, Japan
- 11-5 **JPEG Compression Effects on a Smart Card Face Verification System**
Thirimachos Bourlai, Josef Kittler and Kieron Messer, United Kingdom

Break (10:40 — 11:00)

Session 12: Invited Talk 3 (11:00 — 12:00)

Chair: Katsuhiko Sakaue

Towards Flexible and Intelligent Vision Systems: -From Thresholding to CHLAC

Prof. Nobuyuki Otsu
(AIST / University of Tokyo, Japan)

Lunch (12:00 — 13:00)

Session 13: Poster Session 3 (13:00 — 14:30)

- 13-1 **Cooperative Usage of Monocular Camera and Omnidirectional Camera for Segmenting Moving Humans**
Thatsaphan Suwannathat and Masahide Kaneko, Japan
- 13-2 **Two-Axial Subtraction of Estimated Background Integral Projections: Fast Method in Automatic Target Detection and Tracking**
Ali Karandish, Ali Mahmoodi and Farid Behazin, Iran
- 13-3 **Fast Global Motion Estimation via Modified ILSE Method**
Jia Wang, Hanqing Lu and Qingshan Liu, China

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13-23 Variable Pulse Mode Driving IR Source Based 3D Robotic Camera

Sukhan Lee, Byungchan Jung, Jehyuk Ryu, Seongho Yoon, Seungsub Oh, Jeongtaek Oh, Changsik Choi and Jongmoo Choi, Hoonmo Kim, Jundong Cho, Korea

13-24 Automatic Construction of the Motion Database which Allows to Search Contents by a Motion Name

Takashi Yukawa, Naoko Obara and Hideo Tamamoto, Japan

13-25 On Using Histograms of Local Invariant Features for Image Retrieval

Alaa Halawani and Hans Burkhardt, Germany

13-26 SVM-Based Relevance Feedback in Image Retrieval Using Invariant Feature Histograms

Lokesh Setia, Julia Ick and Hans Burkhardt, Germany

13-27 High Dynamic Range Video through Fusion of Exposed-Controlled Frames

Seung-Jun Youm, Won-Ho Cho and Ki-Sang Hong, Korea

13-28 Efficient Block-Based Motion Segmentation Method Using Motion Vector Consistency

Ronald H.Y. Chung, Francis Y.L. Chin, Kwan-Yee K. Wong, K.P. Chow, T. Luo and Henry S.K. Fung, Hong Kong

13-29 Efficient Minutiae-Based Fingerprint Matching

Gerald Eckert, Sönke Müller and Torsten Wiebesiek, Germany

13-30 An Image Watermarking Method Based on Mean-Removed Vector Quantization for Multiple Purposes

Zhe-Ming Lu and Zhen Sun, China

13-31 Performance Evaluation of Fractal Feature in Recognition of Postal Codes Using an RBF Neural Network and SVM Classifier

Saeed Mozaffari, Karim Faez and Hamidreza Rashidy Kanan, Iran

13-32 Adaptive Image Translation for Painterly Rendering

Kenji Hara, Kohei Inoue and Kiichi Urahama, Japan

Session 14: Human Behavior (14:30 — 16:10)

Chair: Giulio Sandini, Yoichi Sato

14-1 Human Activity Recognition Using Sequences of Postures

Vili Kellokumpu, Matti Pietikäinen and Janne Heikkilä, Finland

14-2 Unsupervised Abnormality Detection in Video Surveillance

Takuya Nanri and Nobuyuki Otsu, Japan

14-3 HHMM Based Recognition of Human Activity Motion Trajectories in Image Sequences

Daiki Kawanaka, Shun Ushida, Takayuki Okatani and Koichiro Deguchi, Japan

14-4 Tracking Objects from Multiple Soccer Videos and Recognizing Events

Kyuhyoung Choi and Yongdeuk Seo, Korea

14-5 Head Pose Estimation System Based on Particle Filtering with Adaptive Diffusion Control

Kenji Oka, Yoichi Sato, Yasuto Nakanishi and Hideki Koike, Japan

Break (16:10 — 16:30)

Session 15: Outdoor Applications (16:30 — 17:50)

Chair: Hasan Fleyeh, Hirotada Ueda

15-1 Estimation of the Visibility Distance by Stereovision: a Generic Approach

Nicolas Hautière, Raphaël Labayrade and Didier Aubert, France

15-2 Uncertain RanSaC

Ben Tordoff and Roberto Cipolla, United Kingdom

15-3 Shadow Compensation in Color Images for Unstructured Road Segmentation

Ramin Ghurchian and Satoshi Hashino, Japan

15-4 Immersive Telepresence System with a Locomotion Interface Using High-Resolution Omnidirectional Videos

Sei Ikeda, Tomokazu Sato, Masayuki Kanbara and Naokazu Yokoya, Japan