

# Final Program

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# MVA2009

IAPR CONFERENCE ON MACHINE VISION APPLICATIONS

**May 20-22, 2009**  
**Keio University, Yokohama, JAPAN**

## *Topics*

### **Machine Vision and its Applications**

#### *IAPR Invited Speakers*

**Dr. Cordelia SCHMID (INRIA)**

“Large Scale Image Search”

**Prof. Kyros KUTULAKOS (University of Toronto)**

“Focal Stack Photography: High-Performance  
Photography with a Conventional Camera”

**Prof. Ryosuke SHIBASAKI (The University of Tokyo)**

“Integration of Earth Observation Data: Challenge of GEOSS  
(Global Earth Observation System of Systems)”

#### *Sponsored by*

MVA Organization

IAPR TC-8

Keio University

#### *In cooperation with*

The Information Processing Society of Japan

The Institute of Electrical Engineers of Japan

The Institute of Electronics, Information and Communication Engineers

The Institute of Image Information and Television Engineers

The Institute of Systems, Control and Information Engineers

The Institute of Image Electronics Engineers of Japan

The Japanese Society for Artificial Intelligence

The Japanese Society for Non-destructive Inspection

The Japan Society for Precision Engineering

The Robotics Society of Japan

The Society of Instrument and Control Engineers

The Virtual Reality Society of Japan

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# Final Program

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## Wednesday, May 20, 2009

**Registration** (8:30 – 9:00)

**Opening Session** (9:00 – 9:20)

**Session 1: Interaction & Virtual Reality** (9:20 – 10:20)

Chairs: Julien Pilet and Yoichi Sato

**1-1 Indoor Map Display Method Using Mixed Reality**

*Satoshi Hisanaga and Takaaki Kase, Japan*

**1-2 Texture Overlay onto Flexible Object with PCA of Silhouettes and K-Means Method for Search into Database**

*Hiroshi Tanaka and Hideo Saito, Japan*

**1-3 Real-time Motion-based Gesture Recognition Using the GPU**

*Mark Bayazit, Alex Couture-Beil and Greg Mori, Canada*

**Break** (10:20 – 10:40)

**Session 2: Motion & Multiview** (10:40 – 12:00)

Chairs: Antonis Argyros and Ikuko Shimizu

**2-1 Automatic Gigapixel Mosaicing in Large Scale Unstructured Underground Environments**

*Daniela Craciun, Nicolas Paparoditis and Francis Schmitt, France*

**2-2 Image Rectification for Robust Matching of Car-mounted Camera Images**

*Naoko Enami, Norimichi Ukita and Masatsugu Kidode, Japan*

**2-3 Self Image Rectification for Uncalibrated Stereo Video with Varying Camera Motions and Zooming Effects**

*Chia-Ming Cheng, Shang-Hong Lai and Shyh-Haur Su, Taiwan*

**2-4 A New Method for Projector Calibration Based on Visual Servoing**

*Jérémie Mosnier, Francois Berry and Omar Ait-Aider, France*

**Lunch** (12:00 – 13:00)

**Session 3: Poster Session 1** (13:00 – 14:30)

**3-1 New System Implementation on SIMD Processor for Reliable Fingerprint Singularity Detection by Singular Candidate Method**

*Daisuke Tomizawa, Yuta Hasegawa, Tomohiko Ohtsuka and Hiroyuki Aoki, Japan*

**3-2 Detection of Abnormal Objects in a Scene Based on Local Features**

*Junya Kobayashi and Keiichi Yamada, Japan*

**3-3 Real-Time Uncharacteristic-Part Tracking Based on Points Tracking**

*Norimichi Ukita, Akira Makino and Masatsugu Kidode, Japan*

**3-4 Automatic Extraction of Layer Structure for Retina in OCT Image Using Morphological Operation and Active Net**

*Ai Yamakawa, Shinji Tsuruoka, Hiroharu Kawanaka, Fumio Okuyama and Toshiki Yagi, Japan*

**3-5 Human Behavior Analysis Using Multiple 2D Features and Multicategory Support Vector Machine**

*Hao-Cheng Mo, Jin-Jang Leou and Cheng-Shian Lin, Taiwan*

**3-6 Exploitation of 3D Information for Directing Visual Attention and Object Recognition**

*Oytun Akman and Pieter Jonker, Netherlands*

**3-7 Inter Mode Decision Algorithm For Advanced Video Coding**

*Fang-Hsuan Cheng and Yea-Shuan Huang, Taiwan*

**3-8 Large-Scale Stereo for Improvement of 3D Measurement Accuracy in Gaze-Observation**

*Masafumi Nakagawa, Yoshihiro Kawai and Fumiaki Tomita, Japan*

**3-9 An Active Appearance Model with a Derivative-Free Optimization**

*Jixia Zhang, Franck Davoine and Chunhong Pan, China*

**3-10 Image Forgery Detection Based on Quantization Table Estimation**

*Guo-Shiang Lin, Min-Kuan Chang and You-lin Chen, Taiwan*

**3-11 A Binarization Method for Crack Detection in a Road Surface Image with the Fractal Dimension**

*Hiromi Yoshida and Naoki Tanaka, Japan*

**3-12 Building a Multi-Touch Display Based on Computer Vision Techniques**

*Damien Michel, Antonis Argyros, Dimitris Grammenos, Xenophon Zabulis and Thomas Sarmis, Greece*

**3-13 Synchronization of Full-View Image and GPS Data for Route Map Building**

*Ying Hai, Shigang Li and Yuto Mizuno, Japan*

**3-14 Study of Early Screening Method of Dementia and Its Systemization**

*Youhei Kondou, Mikiko Kawasumi, Osami Yamamoto, Muneo Yamada, Shin Yamamoto and Tomoaki Nakanno, Japan*

**3-15 Face Blurring for Privacy in Street-level Geoviewers Combining Face, Body and Skin Detectors**

*Alexandre Devaux, Nicolas Paparoditis, Frédéric Precioso and Bertrand Cannelle, France*

**3-16 Vision-Based Real-Time Monitoring on the Behavior of Fish School**

*Boon Fong Chew, How-Lung Eng and Myo Thida, Singapore*

**3-17 Design and Evaluation of Features That Best Define Text in Complex Scene Images**

*Navid Mavaddat, Tae-Kyun Kim and Roberto Cipolla, Australia*

**3-18 OCR Based Thresholding**

*Yves Rangoni, Faisal Shafait and Thomas M. Breuel, Germany*

**3-19 A 3.2 kHz, Stereo Sensing Module Using Two Profile Sensors**

*Yoshinori Matsui, Munenori Takumi, Haruyoshi Toyoda, Naohisa Mukozaka, Atsushi Ihori, Yukinobu Sugiyama and Seiichiro Mizuno, Japan*

**3-20 Video-Based Face Recognition Using a Probabilistic Graphical Model**

*Yi-Chia Chan, Cheng-Chieh Chiang, Kai-Ming Wang and Greg C. Lee, Taiwan*

**3-21 A Comparative Study of Hierarchical Matching Algorithms for Face Recognition**

*Hajar Momeni, Mohammad T. Sadeghi and Hamid R. Abutalebi, Iran*

**3-22 1,000-fps Visual Feedback Control of an Active Vision System over a High-Load Network**

*Daisuke Wako, Shingo Kagami and Koichi Hashimoto, Japan*

**3-23 Image Based View Localization System Retrieving from a Panorama Database by SURF**

*Naoyuki Yazawa, Hideaki Uchiyama, Hideo Saito, Myriam Servières and Guillaume Moreau, Japan*

**3-24 Hand Shape Recognition Based on Kernel Orthogonal Mutual Subspace Method**

*Yasuhiro Ohkawa and Kazuhiro Fukui, Japan*

**3-25 Application of Co-Occurrence Frequency Image**

*Takayuki Fujiwara, Hiroyasu Koshimizu and Manabu Hashimoto, Japan*

**3-26 Improved Matching Accuracy in Traffic Sign Recognition by Using Different Feature Subspaces**

*Arihito Ihara, Hironobu Fujiyoshi, Masanari Takagi, Hiroaki Kumon and Yukimasa Tamatsu, Japan*

**3-27 Object Pose Estimation Using Patch-Duplet/SIFT Hybrids**

*Fredrik Viksten, Sweden*

**Session 4: Invited Talk 1 (14:30 – 15:30)**

Chair: Ken-ichi Maeda

**4-1 Large Scale Image Search**

*Dr. Cordelia Schmid, INRIA, France*

**Break (15:30 – 15:50)**

**Session 5: Visual Surveillance (15:50 – 17:50)**

Chairs: Shang-Hong Lai and Tatsuhiro Kagehiro

**5-1 Probabilistic BPRRC: Robust Change Detection against Illumination Changes and Background Movements**

*Kentaro Yokoi, Japan*

**5-2 People Re-Identification by Means of a Camera Network Using a Graph-Based Approach**

*Dung-Nghi Truong Cong, Louahdi Khoudour, Catherine Achard and Philippe Phothisane, France*

**5-3 Incident Detection Based on Dynamic Background Modeling and Statistical Learning Using Spatio-Temporal Features**

*Yasuhiro Murai, Hironobu Fujiyoshi and Masato Kazui, Japan*

**5-4 Human Head Tracking Based on Inheritance and Evolution Concept**

*Yi Hu and Tetsuya Takamori, Japan*

**5-5 Unsupervised Abnormal Behavior Detection for Real-Time Surveillance Using Observed History**

*Tsz-Ho Yu and Yu-Sang Moon, Hong Kong*

**5-6 Abnormal Spatial Event Detection and Video Content Searching in a Multi-Camera Surveillance System**

*Chueh-Wei Chang, Ti-Hua Yang and Yu-Yu Tsao, Taiwan*

**Thursday, May 21, 2009**

**Session 6: Feature Extraction & Pattern Recognition (9:00 – 10:20)**

Chairs: Tati Rajab Mengko and Hiroshi Ishikawa

**6-1 Statistical Reach Feature Method and Its Application to Template Matching**

*Ryushi Ozaki, Yutaka Satoh, Kenji Iwata and Katsuhiko Sakae, Japan*

**6-2 Design of Feature Extraction Operators for Use on Biologically Motivated Hexagonal Image Structures**

*Sonya Coleman, Bryan Scotney and Bryan Gardiner, United Kingdom*

**6-3 An Appearance Based Fast Linear Pose Estimation**

*Toshiyuki Amano and Toru Tamaki, Japan*

**6-4 Semi-Supervised Spectral Mapping for Enhancing Separation between Classes**

*Weiwei Du and Kiichi Urahama, Japan*

**Break (10:20 – 10:40)**

**Session 7: Object Recognition (10:40 – 12:00)**

Chairs: Igor Gurov and Takeshi Masuda

**7-1 Keypoint Extraction and Selection for Object Recognition**

*Maja Rudinac, Boris Lenseigne and Pieter Jonker, Netherlands*

**7-2 Scene Classification Using Generalized Local Correlation**

*Hideki Nakayama, Tatsuya Harada and Yasuo Kuniyoshi, Japan*

**7-3 Unsupervised Learning of Characteristic Object Parts from Videos**

*Henrik Skibbe, Alexandra Teynor and Hans Burkhardt, Germany*

**7-4 Color Image Classification Using Locally Linear Manifolds and Learning**

*Kazuki Kondo and Seiji Hotta, Japan*

**Lunch (12:00 – 13:00)**

**Session 8: Poster Session 2 (13:00 – 14:30)**

**8-1 Video Watermarking Algorithm Based on Pseudo 3D DCT and Quantization Index Modulation**

*Hui-Yu Huang, Cheng-Han Yang and Wen-Hsing Hsu, Taiwan*

**8-2 Overlap Vehicle Detection by Tracking Horizontal Lines**

*Kazunori Onoguchi, Japan*

**8-3 Measuring Conicity from Shape Boundaries**

*Milos Stojmenovic and Amiya Nayak, Canada*

**8-4 Image Based Search System Using Hierarchical Object Category Recognition Technique**

*Takuya Minagawa and Hideo Saito, Japan*

**8-5 Improvement of Particle Filtering for Intersection of Targets with Similar Patterns**

*Naoki Enda, Shinji Fukui, Yuji Iwahori and Robert J. Woodham, Japan*

**8-6 Voting Based Video Classification Using Clustering and Learning**

*Kei Kikuchi and Seiji Hotta, Japan*

**8-7 Algorithmic Considerations for Real-Time Stereo Vision Applications**

*Kristian Ambrosch, Christian Zinner and Wilfried Kubinger, Austria*

**8-8 Behavior Recognition with HMM and Feature Analysis using a Wide-View Camera and a PTZ camera**

*Norimichi Ukita, Akihito Kotera and Masatsugu Kidode, Japan*

**8-9 A Hardware Accelerator with Variable Pixel Representation & Skip Mode Prediction for Feature Point Detection Part of SIFT Algorithm**

*Jingbang Qiu, Tianci Huang, Yiqing Huang and Takeshi Ikenaga, Japan*

**8-10 Segmentation of Femoral Head from CT after Femoral Neck Fracture**

*Jan Horáček, Lukáš Maršálek, Martin Horák, Philipp Slusallek and Josef Pelikán, Czech Republic*

**8-11 Medial Features for Superpixel Segmentation**

*David Engel, Luciano Spinello, Rudolph Triebel, Roland Siegwart, Heinrich H. Bülthoff and Cristóbal Curio, Germany*

**8-12 Face Recognition by Combining Complementary Matchings of Single Image and Sequential Images**

*Yea-Shuan Huang, Wei-Cheng Liu and Fang-Hsuan Cheng, Taiwan*

**8-13 Recognition of Lung Cancers on CT Using 3-D Object Models of Different Classes**

*Hotaka Takizawa, Shinji Yamamoto and Tsuyoshi Shiina, Japan*

**8-14 Model-Based 3D Object Tracking with Online Texture Update**

*Keisuke Tateno, Daisuke Kotake and Shinji Uchiyama, Japan*

- 8-15 On a Technique for Evaluating Performance of Wipers Based on Forward Visibility**  
*Takashi Kitayama, Masatoshi Sakai, Takashi Kato, Munao Yamada, Tomoaki Nakano, Shin Yamamoto, Osami Yamamoto, Masahiko Yamanishi and Hiroshi Matsumoto, Japan*
- 8-16 A Multicamera Vision System Supporting the Development of Wide-Area Exertainment Applications**  
*Xenophon Zabulis, Thomas Sarmis, Dimitris Grammenos and Antonis A. Argyros, Greece*
- 8-17 Multiple-Person Tracking for a Mobile Robot Using Stereo**  
*Junji Satake and Jun Miura, Japan*
- 8-18 Automatic Analysis of Fish Behaviors and Abnormality Detection**  
*Myo Thida, How-Lung Eng and Boon Fong Chew, Singapore*
- 8-19 Video Retrieval System Using Handwriting Sketch**  
*Akihiro Sekura and Masashi Toda, Japan*
- 8-20 Linear 3-D Object Pose Estimation with Dense Sample Images –Discussions about Limitation of Parameter Estimation Ability by the Linear Regressions–**  
*Toshiyuki Amano and Toru Tamaki, Japan*
- 8-21 Predicting Attainable Region of Vehicle Using Trajectory Clustering**  
*Noritaka Sekiyama, Jien Kato and Toyohide Watanabe, Japan*
- 8-22 A Sensor Based Navigation Algorithm for Moving Obstacles Assuring Convergence Property**  
*Masaaki Tomita and Motoji Yamamoto, Japan*
- 8-23 Static Estimation of the Meteorological Visibility Distance in Night Fog with Imagery**  
*Romain Gallen, Nicolas Hautière and Eric Dumont, France*
- 8-24 Machine Vision for Excess Gluing Inspection in Spindle Motor Assembly**  
*Varunyou Buddhachan and Pakorn Kaewtrakulpong, Thailand*
- 8-25 Chromosome Image Recognition with Local Band Patterns**  
*Toru Abe, Chieko Hamada and Tetsuo Kinoshita, Japan*
- 8-26 Comparison of Conventional US and Spatial Compound Imaging in Diagnostic Performances of Computer Aided Diagnosis System**  
*Wei-Chih Shen, Ruey-Feng Chang and Woo Kyung Moon, Taiwan*
- 8-27 Worker Behavior and Intension Modeling in Production Process**  
*Takuma Funahashi, Takayuki Hoshino, Naoya Tokuda, Takayuki Fujiwara and Hiroyasu Koshimizu, Japan*
- 8-28 Investigation of OCT Images Descriptions on the Base of Representational MDL Principle**  
*Igor Gurov and Alexey Potapov, Russia*
- 8-29 Feature Level Clustering of Large Biometric Database**  
*Hunny Mehrotra, Dakshina R. Kisku, V. Bhawani Radhika, Banshidhar Majhi and Phalguni Gupta, India*
- 8-30 3D Porous Media Liquid-Solid Interaction Simulation Using SPH Modeling and Tomographic Images**  
*Alfonso Gastelum Strozzi, Jorge Marquez, Flavio Trujillo, Celine Duwig, Blanca Prado, Pavan Gamage and Patrice Delmas, New Zealand*

**Session 9: Invited Talk 2 (14:30 – 15:30)**

Chair: Katsushi Ikeuchi

- 9-1 Focal Stack Photography: High-Performance Photography with a Conventional Camera**  
*Prof. Kyros Kutulakos, University of Toronto, Canada*

**Break (15:30 – 15:50)**

**Session 10: Human Sensing (15:50 – 17:30)**

Chairs: Bryan Scotney and Kyoko Sudo

- 10-1 Shape Measurement System of Foot Sole Surface from Flatbed Scanner Image**  
*Sandy Martedi, Hideo Saito and Myriam Servières, Japan*
- 10-2 Extracting Appearance Information inside the Pupil for Cataract Screening**  
*Retno Supriyanti, Hitoshi Habe, Masatsugu Kidode and Satoru Nagata, Japan*
- 10-3 Eye Detection Using Intensity and Appearance Information**  
*M. Hassaballah and Shun Ido, Japan*
- 10-4 Eye Blink Based Fatigue Detection for Prevention of Computer Vision Syndrome**  
*Matjaž Divjak and Horst Bischof, Austria*
- 10-5 Detection of Approaching Pedestrians from a Distance Using Temporal Intensity Patterns**  
*Siu-Ming Cheung and Yiu-Sang Moon, Hong Kong*

**Banquet (18:00 – 20:00)**

**Friday, May 22, 2009**

**Session 11: Industrial Applications (9:00 – 10:20)**

Chairs: Andrea Prati and Hisae Shibuya

- 11-1 A New Flat Pattern Oriented Order Statistic Filter for Impulse Noise Reduction from Highly Corrupted Images**  
*Tomohiko Ohtsuka, Homare Sasaki, Masato Suzuki and Hiroyuki Aoki, Japan*
- 11-2 Multiple Object Detection for Pick-and-Place Applications**  
*Paolo Piccinini, Andrea Prati and Rita Cucchiara, Italy*
- 11-3 A Cloth Detection Method Based on Image Wrinkle Feature for Daily Assistive Robots**  
*Kimitoshi Yamazaki and Masayuki Inaba, Japan*
- 11-4 Carbon Nanotube Detection by Scanning Electron Microscopy**  
*Tim Wortmann and Sergej Fatikow, Germany*

**Break (10:20 – 10:40)**

**Session 12: Geographic Information Systems (10:40 – 11:40)**

Chairs: Laurent Heutte and Eigo Segawa

- 12-1 Automatic GIS Updating from High Resolution Satellite Images**  
*Nicolas Champion, Georges Stamon and Marc Pierrot-Deseilligny, France*
- 12-2 Extracting 3D Polyhedral Building Models from Aerial Images Using a Featureless and Direct Approach**  
*Fadi Dornaika and Karim Hammoudi, France*
- 12-3 AR GIS on a Physical Map Based on Map Image Retrieval Using LLAH Tracking**  
*Hideaki Uchiyama, Hideo Saito, Myriam Servières and Guillaume Moreau, Japan*

**Lunch (11:40 – 13:00)**

**Session 13: Poster Session 3 (13:00 – 14:30)**

- 13-1 Probabilistic-Based Semantic Image Feature Using Visual Words**  
*Cheng-Chieh Chiang, Jia-Wei Wu and Greg C. Lee, Taiwan*
- 13-2 A Block Matching Technique Using Unit Gradient Vectors**  
*Toshiaki Kondo and Waree Kongprawechnon, Thailand*

- 13-3 An Easy Technique for Fisheye Camera Calibration**  
*Haijiang Zhu and Fuchao Wu, China*
- 13-4 Robust Vision-Based Target Tracking Control System for an Unmanned Helicopter Using Feature Fusion**  
*Feng Lin, Ben M. Chen and Tong H. Lee, Singapore*
- 13-5 Robust Background Segmentation Using Background Models for Surveillance Application**  
*Tianci Huang, Jingbang Qiu, Takahiro Sakayori and Takeshi Ikenaga, Japan*
- 13-6 Motion Segmentation Using Divisive Graph Cuts**  
*Jong-Sung Kim and Il-Kwon Jeong, South Korea*
- 13-7 A Novel Transducer: From Lip Motion to Voice Message**  
*Takeshi Saitoh, Tomoya Kato and Ryosuke Konishi, Japan*
- 13-8 Proposal of Exaggeration Method Based on Shape and Positional Relations of Automotive Parts**  
*Hiroshi Fujimoto, Takuma Funahashi, Takayuki Fujiwara and Hiroyasu Koshimizu, Japan*
- 13-9 Image Processing Architecture for Real-Time Micro- and Nanohandling Applications**  
*Tim Wortmann, Christian Dahmen, Robert Tunnell and Sergej Fatikow, Germany*
- 13-10 Fitting Curves on Riemannian Manifolds Using Energy Minimization**  
*Chafik Samir, Pierre-Antoine Absil, Anuj Srivastava and Eric Klassen, Belgium*
- 13-11 Classification of Spectators' State in Video Sequences by Voting of Facial Expressions and Face Directions**  
*Tetsu Matsukawa, Akinori Hidaka and Takio Kurita, Japan*
- 13-12 A Hybrid Model for Multiple Object Category Detection and Localization**  
*Dipankar Das, Yoshinori Kobayashi and Yoshinori Kuno, Japan*
- 13-13 Unsupervised Material Classification of Printed Circuit Boards Using Dimension-Reduced Spectral Information**  
*Abdelhameed Ibrahim, Shoji Tominaga and Takahiko Horiuchi, Japan*
- 13-14 An Optical Video Cryptosystem with Adaptive Steganography**  
*Cheng-Hung Chuang and Guo-Shiang Lin, Taiwan*
- 13-15 Development of System for Comprehensively Measuring Driving Ability for Elderly Safe Driving**  
*Toshiaki Kasukabe, Masatake Hiraoka, Osami Yamamoto, Muneo Yamada, Tomoaki Nakano, Shin Yamamoto, Katsumi Matsuda and Mikiko Kawasumi, Japan*
- 13-16 Generation of Overhead View Images by Estimating Intrinsic and Extrinsic Camera Parameters of Multiple Fish-Eye Cameras**  
*Ryota Okutsu, Kenji Terabayashi, Yohei Aragaki, Noriko Shimomura and Kazunori Umeda, Japan*
- 13-17 Image Processing in Retinal Angiography: Extracting Angiographical Features without the Requirement of Contrast Agents**  
*Tati Rajab Mengko, Astri Handayani, Vanya Vabrina Valindria, Samekta Hadi and Iwan Sovani, Indonesia*
- 13-18 A Human Fall Detection System Using an Omni-Directional Camera in Practical Environments for Health Care Applications**  
*Yi-Chang Huang, Shaou-Gang Miaou and Tsung-Yen Liao, Taiwan*
- 13-19 Intrinsic Color Acquisition By Active Color Lighting**  
*Hisanaga Fujiwara, Japan*
- 13-20 Large Area Video Surveillance System with Handoff Scheme among Multiple Cameras**  
*Cheng-Chang Lien, Yue-Min Jiang and Lih-Guong Jang, Taiwan*
- 13-21 Classification of Wet/Dry Area Based on the Mahalanobis Distance of Feature from Time Space Image Analysis**  
*Tomoaki Teshima, Hideo Saito, Masayoshi Shimizu and Akinori Taguchi, Japan*
- 13-22 Classification of In-Vivo Endomicroscopic Images of the Alveolar Respiratory System**  
*Caroline Petitjean, Jonathan Benoist, Luc Thiberville, Mathieu Salaün and Laurent Heutte, France*
- 13-23 On Face Recognition Using Hierarchical Self Organized Gabor Features**  
*Saleh Aly, Naoyuki Tsuruta and Rin-ichiro Taniguchi, Japan*
- 13-24 Scallop Detection from Gravel-Seabed Images for Fishery Investigation**  
*Koichiro Enomoto, Masashi Toda, Yasuhiro Kuwahara, Masaaki Wada and Katsumori Hatanaka, Japan*
- 13-25 Stereo Vision: A Java-Based Online Platform**  
*Minh Nguyen, Georgy Gimelfarb and Patrice Delmas, New Zealand*
- 13-26 Lavatube - A Software Framework for Computer Vision Research and Development**  
*Kenji Iwata, Yutaka Satoh and Katsuhiko Sakaue, Japan*
- Session 14: Invited Talk 3 (14:30 – 15:30)**  
Chair: Hideo Saito
- 14-1 Integration of Earth Observation Data: Challenge of GEOSS (Global Earth Observation System of Systems)**  
*Prof. Ryosuke Shibasaki, The University of Tokyo, Japan*
- Break (15:30 – 15:50)**
- Session 15: Machine Vision for Transportation (15:50 – 17:50)**  
Chairs: Thomas M. Breuel and Kunio Nobori
- 15-1 Automatic Extraction of Droppers in Catenary Scenes**  
*Caroline Petitjean, Laurent Heutte, Régis Kouadio and Vincent Delcourt, France*
- 15-2 Free Space Detection for Autonomous Navigation in Daytime Foggy Weather**  
*Nicolas Hautière, Jean-Philippe Tarel and Didier Aubert, France*
- 15-3 An Intelligent Night Vision System for Automobiles**  
*Tsz-Ho Yu, Yiu-Sang Moon, Jiansheng Chen, Hung-Kwan Fung, Hoi-Fung Ko and Ran Wang, Hong Kong*
- 15-4 A New Approach for In-Vehicle Camera Traffic Sign Detection and Recognition**  
*Andrzej Ruta, Yongmin Li, Fatih Porikli, Shintaro Watanabe, Hiroshi Kage and Kazuhiko Sumi, United Kingdom*
- 15-5 Recognition of Road Markings from In-Vehicle Camera Images by a Generative Learning Method**  
*Masafumi Noda, Tomokazu Takahashi, Daisuke Deguchi, Ichiro Ide, Hiroshi Murase, Yoshiko Kojima and Takashi Naito, Japan*
- 15-6 Vision Based Tangent Point Detection Algorithm, Evaluation and Validation**  
*Romain Gallen and Sébastien Glaser, France*
- Closing Session (17:50 – 18:00)**

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## Important Notice

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### For all participants

#### *Invited talk*

Invited talk is planned to take place in Fujiwara Hiroshi Hall at 14:30 p.m. on Wednesday, Thursday, and Friday, respectively. The time assigned for the talk is 60 minutes including discussions. Smoking, drinking, and eating are strictly prohibited inside Fujiwara Hiroshi Hall.

#### *Oral session site*

Oral sessions will be held in Fujiwara Hiroshi Hall.

#### *Poster session site*

Poster sessions will be held in Multipurpose Room2 and Multipurpose Room3.

#### *Name badges*

All participants are requested to wear their name badges during the conference. You may not be allowed access to the conference site without your name badge. Invited speakers, regular speakers, and other participants are provided with red, dark-blue, and light-blue badges, respectively. Conference committee members and organization staff wear purple and green badges, respectively. Session chairs also put yellow marks on their badges.

#### *Restaurants, ATMs, post offices, etc.*

Please refer to the map (contained in your conference bag) for restaurants, ATMs, post offices, and convenience stores around the conference site.

#### *Breaks*

Coffee and soft drink will be served during the morning and afternoon breaks.

#### *Banquet*

The conference banquet will be held at Faculty Lounge in Raiosha from 18:00 on Thursday, May 21. Further information will be available in the registration area.

#### *LAN*

Wireless LAN will be available in the conference palace. Further information, such as the connection name and its network key (WEP), can be found in the registration area.

### For presenters in oral sessions

All oral presentations will be given in a single track. Presenters are requested to observe the following points:

- 1) Each oral presenter is given 20 minutes including 15 minutes for presentation and about 5 minutes for questions and answers.

- 2) A PC projector will be made available at the auditorium. Laptop computers can be used with this projector. Presenters are asked to bring a laptop computer with a DB15HD port for external display and that can run on 100V AC through a two-prong-socket.
- 3) Presenters should go to Fujiwara Hiroshi Hall 15 minutes before their session starts, introduce themselves to the session chairs, and check that their presentation works with the provided equipment.

### For presenters in poster sessions

The poster session will be held over a time period of 90 minutes at the beginning of the afternoon sessions, starting at 13:00 p.m. on Wednesday, Thursday, and Friday, respectively. Presenters are encouraged to spend most of the time at their poster during their 90-minute-session. Presenters are requested to observe the following points:

- 1) A poster board of the size of 1800-mm (width) x 1800-mm (height) will be provided to each poster presenter. To find your board, look for your presentation number in the final program attached on the board. We will provide thumbtacks (drawing pins) for tacking the poster(s) to the board.
- 2) To enable participants to view your work more closely during the afternoon sessions, we request presenters to prepare their posters during the lunch break, and after the poster session, they can leave posters in place during all sessions in the afternoon. Please be sure to remove them by the end of the afternoon sessions.

### For session chairs

- 1) Please make sure to arrive at Fujiwara Hiroshi Hall at least 15 minutes before the start of the session.
- 2) Make sure that all the presenters for your session are there at the start and introduce yourself to them.
- 3) All presentations are 20 minutes long including question and answer period and computer swapping time.