Image Processing (Oral 1) : 9:20 – 10:20
Chair : Dong-Seok, Jeong(In–Ha University, Korea), Hiroyuki Ukida(The University of Tokushima, Japan)

O1-1 Camera Calibration with Arbitrary Parallelograms Using a Factorization Approach
Jae-Hean Kim and Byoung-Tae Choi(ETRI, Korea)

O1-2 A Robust Point Registration of Imbalanced Point Sets based on Parameter–Adaptive LCPD
Hidenori Takaui, Shouichi Kondo(Hokkaido University, Japan), Hisae Shibuya, Shunji Maeda, Minoru Yoshida(Hokkaido University, Hitachi, Ltd., Japan), Yasuo Nakagawa(Hitachi, Ltd.) and Shun’ichi Kaneko(Hokkaido University, Japan)

O1-3 Determination Method for Camera Optical Axis to Control Manipulator using 3D Pose Estimation
Sangbum Park, Youngjoon Han and Hensburg Hahn(Soongsil University, Korea)

3D Sensing(1) (Oral 2) : 10:30 – 11:50
Chair : In–So, Kweon(KAIST, Korea), Jun’ichiro Hayashi(Kagawa University, Japan)

O2-1 Shape from Motion and Local Plane Assumption
Toshio Ito(DAIHATSU Motor Co., Ltd.), Taiki Sekii(University of Kobe, Japan), Shiho Tanaka(DAIHATSU Motor Co., Ltd.) and Takenao Ohkawa(University of Kobe, Japan)

O2-2 Key Frame Detection for Efficient Video Retrieval and Identification
Jun-Woo Lee, Ju-Kyong Jin and Dong–Seok Jeong(Inha University, Korea)

O2-3 3D Shape, Color and Specular Property Reconstruction Using Linear Light Sources in Image Scanner
Hiroyuki Ukida(Tokushima University, Japan)

O2-4 Distance Depiction on Painterly Rendering using Depth Information
Jae-Ni Jang(Chung–Ang University, Korea), Seung Taek Ryoo(Han–Shin University, Korea) and Kyung–Hyun Yoon(Chung–Ang University, Korea)

Invited Talk: 13:00 – 13:45
Chair : Toshio Asano(Hiroshima Institute of Technology, Japan)

Topics in Computer Vision Systems
Whoi–Yul Yura Kim(Hanyang University, Korea)

Poster 1: 13:50 – 15:20
Chair : Chil–Woo, Lee(Cheon–Nam University, Korea), Jun’ichi Yamaguchi(Kagawa University, Japan)

Image Processing
P1-1 Made to Measure Morphological Filters
Fernand Meyer(Mines ParisTech, France)

P1-2 An Effective Technique to Enhance the Degraded Documents Using Singular Value Decomposition and Adaptive Thresholding
Ganga Holi, Srikanta Murthy(PES Institute of Technology, India), G. Hemanth Kumar(University of Mysore, India), Nitin Narasimhan, Suman Bharadwaj and Pavan Kulkarni(PES Institute of Technology, India)

P1-3 Image Clipping by Weighted Histogram Intersection Minimization
Kohei Inoue, Kenji Hara and Kiichi Urahama(Kyushu University, Japan)

P1-4 Bootstrap Denoising of Images with Self–Cross Bilateral Filter
Chang Jian, Kohei Inoue and Kiichi Urahama(Kyushu University, Japan)

P1-5 A Cross Bilateral Filter for Image Denoising Based on Undecimated Wavelet Transform
Yu Qiu, Fengchun Tian(Chongqing University, China) and Kiichi Urahama(Kyushu University, Japan)

P1-6 Image retrieval using DCT Filter–bank in RGB Color Space
Yong–Ho Kim, Seok–Han Lee, Sang–keun Lee, Jong–Soo Choiy(CAU, Korea) and Weon–Geun Oh(ETRI, Korea)

Sensing
P1-7 Cortical Bone Width Measurement Based on Active Shape Models (ASM) on Dental Panoramic Radiograph
Dini Adni Navastara (Sepuluh Nopember Institute of Technology, Indonesia), Akira Asano(Hiroshima University, Japan), Agus Zainal Arifin (Sepuluh Nopember Institute of Technology, Indonesia)

P1-8 An Invalid Derivation of the Fundamental Matrix Based on the Equation of a Point Lying on a Line
Tayeb Basta(Al Ghurair University, UAE)

P1-9 Weighted Fuzzy ARTMAP for Osteoporosis Detection
Darlis Herumurti, Agus Zainal Arifin, Rully Sulaeman(Sepuluh Nopember Institute of Technology, Indonesia), Akira...
Asano (Hiroshima University, Japan), Akira Taguchi (Matsumoto Dental University, Japan), Takashi Nakamoto (Hiroshima University Hospital, Japan) and Keiichi Uchimura (Kumamoto University, Japan)

P1-10 Adaptive Analysis Method of Interference Fringes using Multi Wavelength LED Lights for Nano-level Shape Measurement
Masanobu Kaneda, Jun'ichiro Hayashi, Seiji Hata, Ichiro Ishimaru (Kagawa University, Japan), Shigeaki Morimoto (Ryusyo Ind. Co.Ltd.) and Hiroaki Kobayashi (Kagawa Prefecture Industrial Technology Center, Japan)

P1-11 Uniformity Grade Evaluation of Electronic Displays by Visual Contrast
Yuichi Morimoto, Yuji Takagi, Toshihiko Asano (Hiroshima Institute of Technology, Japan), Jun Yao and Wei Liu (Fast Corporation, Japan)

P1-12 Hough Data Verification in Camera Moving
Kazuki Ueno and Jun'ichi Yamaguchi (Kagawa University, Japan)

P1-13 Image Identification for Surface Inspection
Tomoko Fujidai and Jun'ichi Yamaguchi (Kagawa University, Japan)

P1-14 A New Focusing Window Selection Method for Digital Auto-Focusing
Jaehwan Jeon, Jaehyun Im, Younguk Park, Jinhee Lee and Joonyoung Park (Chung-Ang University, Korea)

P1-15 A Simple and Efficient Color Distortion Correction Algorithm
Yun-Sang Han, Seok-Han Lee and Jong-Soo Choi (KAU, Korea)

P1-16 Entrance Detection of Buildings in Outdoor Environment by using Fuzzy System for Mobile Robots
Suk-Ju Kang and Kang-Hyun Jo (University of Ulsan, Korea)

P1-17 A Watermarking Scheme based on Homomorphic Encryption and Content-dependent Watermark for Non-DRM Market Environment
Teak-Young Seung, Chan-Young Kim (Pukyong Nat'l University, Korea), Suk-Hwan Lee, Seung-Geob Park (TongMyong University, Korea) and Ki-Ryoung Kwon (Pukyong Nat'l University, Korea)

P1-18 SWE Model based Simulation to Resolve and Visualize the Cause of POSCO New Harbor Hazards
Kwang-Ik Kim (Pohang University of Sci. & Tech., Korea) and Humin Jing (Graduate University of Chinese Academy of Sciences, Korea)

Multi Dimension

P1-19 Implementation of Symmetric Dynamic Programming Matching Algorithm Using CUDA
Ratheesh Kalarot and John Morris (The University of Auckland, New Zealand)

P1-20 Non-contact Respiratory Monitoring System for Newborn Using a FG Vision Sensor
Yoshiyuki Kuramichi (Shibaura Institute of Technology, Japan), Yushi Itoh, Michiya Natori (National Center for Child Health and Development, Japan), Kazuo Ohzeki (Shibaura Institute of Technology, Japan) and Yoshimitsu Aoki (Keio University, Japan)

P1-21 Vision Based Far-Range Map Building using Probability Estimation of Terrain Classification
Masataka Suzuki, Eisuke Terada, Tepppei Saitoh and Yoji Kuroda (Meiji University, Japan)

P1-22 Visual Odometry using Ground Plane in Dynamic Untextured Environment
Yuya Tamura, Atsushi Sakai and Yoji Kuroda (Meiji University, Japan)

P1-23 Image Warping for View-invariant Object Matching using Stereo Cameras
Jiyong Jung, Yekeun Jeong, Joonyoung Lee and In-So Kweon (KAIST, Korea)

P1-24 Dynamic 3D Object Reconstruction and View-dependent Texture Mapping form Multi-view Images
Ji-young Park and Bon-Ki Koo (ETRI, Korea)

P1-25 Interactive Re-lighting with Dynamic View using Deferred Shading
Dae-Jong Seo (ETRI, University of Science and Technology, Korea), Joo-Haeng Lee and Seung-Woo Nam (ETRI, Korea)

P1-26 Real-Time Rendering Method on Spherical Coordinate System using Convex Hull
Namjung Kim and Hyunki Hong (Chung-Ang University, Korea)

ITS(1)

P1-27 Road Marking Detection for Warning System of Moving Violation through Car Navigation System
Tomohiro Nakada (Shibaura Institute of Technology, Japan), Yoshimitsu Aoki (Keio University, Japan) and Kazuo Ohzeki (Shibaura Institute of Technology, Japan)

P1-28 An Investigation on Detection Technique of Driver's Condition Based on Pupillary Light Reflex Characteristics
Keizou Jindou, Hatsuho Yamasaki, Osami Yamamoto, Tomoaki Nakano, Shin Yamamoto and Muneeo Yamada (Meijo University, Japan)
Human

P1-32 Trajectory Detection of Walking Cooks in Large Scale Kitchen
Chikahito Nakajima, Wataru Urabe, Norihiko Itoh and Fujio Tsutsumi (Central Research Institute of Electric Power Industry)

P1-33 Video Surveillance using Facial Features
Ibrahim Hemdan and Kenji Terada (University of Tokushima, Japan)

P1-34 Automatic Rigging of 3D Human Models
Seong-Jae Lim, Han-Byul Joo, Ho-Won Kim and Bon-Ki Koo (ETRI, Korea)

Recognition and Estimation

O3-1 Morphological Estimation of the Optimal Subject Region for an Affordable Auto-Focusing System
Jaehyun Im, Jaehwan Jeon, Younguk Park and Joonki Paik (Chung-Ang University, Korea)

O3-2 A 53.3 GOPS Image Recognition Engine on a SOC for Advanced Car Navigation Systems
Hideaki Kido, Shoji Muramatsu (Hitachi Ltd.), Yasuhiko Hoshi, Hiroyuki Hamasaki, Atsushi Nakamura and Akihiro Yamamoto (Renesas Technology Corporation)

O3-3 Online Estimation of Structure and Motion for Augmented Reality
Seok-Han Lee, Sang-Keun Lee and Jong-Soo Choi (KAU, Korea)

O3-4 Visual Inspection of Anchovy Using the MT System
Makoto Sano and Hiroyuki Yamashita (Hiroshima Prefectural Technology Research Institute, Japan)

Media

O4-1 PCA/LDA based Image Analysis for 3D Graphic Shader Retrieval
Hee-Kwon Kim, Jae-Ho Lee and Seung-Woo Nam (ETRI, Korea)

O4-2 Sign Language Image Generation by Concatenation of Computer Graphics Animation
Makoto J. Hirayama and Qinglian Guo (Kanazawa Institute of Technology, Japan)

O4-3 The Separation of Caption-Overlaid from Video Database using Caption Activity Detection
Ju-Hee Cho, Jun-Woo Lee and Dong-Seok Jeong (Inha University, Korea)

O4-4 New View Video Synthesis via Real Time Depth Image Processing
Hideo Saito, Yuki Takaya, Songkran Jarusirisawad, Yuku Uematsu (Keio University, Japan), Francois de Sorbier (University of Paris-Est, France/Keio University, Japan)
2nd day    Friday, February 5
Recognition and Estimation(2) (Oral 5)  : 9:00 – 10:20
Chair : Jong-Il Park(Han–Yang University, Korea), Takeshi Saitoh(Tottori University, Japan)
O5-1    Subpixel Shift Estimation Method for the Registration of Noisy Images Using a Wiener Filtered Local Region
Ho–Gun Ha, In–Su Jang and Yeong–Ho Ha(Kyungpook National University, Korea)
O5-2    Industrial Robot System utilizing 3-D Vision Sensing for Flexible Cable Handling
Haruhiya Okuda, Yukiyasu Domae, Yasuo Kitaaki, Kazuhiko Sumi(Mitsubishi Electric Corp.), Yuta Kimura, Hidenori
Takaiji and Shun'ichi Kaneko(Hokkaido University, Japan)
O5-3    Geometric Revise using Distance Transform for Pose Estimation
Yung–Ho Seo, Chi–Min Oh, Dae–Hyeon, Song(Chonnam National University, Korea), Ki–Tae Bae(Korea German
Institute of Technology, Korea) and Chil–Woo Lee(Chonnam National University, Korea)
O5-4    Robust Moving Object Detection Based on A Statistical Model
Xinyue Zhao(Hokkaido University, Japan), Yutaka Satoh(National Institute of Advanced Industrial Science and
Technology, Japan), Hidenori Takauiji, Shun'ichi Kaneko(Hokkaido University, Japan), Kenji Iwata and Ryushi
Ozaki(National Institute of Advanced Industrial Science and Technology, Japan)

Application (Oral 6)  : 10:30 – 11:50
Chair : Kyoung–Ho, Choi(Mok–Po Nat'l University, Korea), Akira Asano(Hiroshima University, Japan)
O6-1    Multimedia Retrieval by Index Matching of Video–audio Feature Fusion
Sang–il Na, Hyuk Jeong(ETRI, Korea), Jae–Hyup Jeong, Dong–Seok Jeong(Inha University, Korea) and
Weon–Geun Oh(ETRI, Korea)
O6-2    Robust Estimation Method for Extracting Minimum Quantization Levels as A Post Processor of OK–Quantization
Theory
Munetoshi Numada and Hiroyasu Koshimizu(Chukyo University, Japan)
O6-3    Effective Vector Map Image Compression Technique for Secure Encryption and Transmission
Bong–Joo Kang, Suk–Hwan Lee(TongMyung University, Korea), Kwang–Seok Moon and Ki–Ryong Kwon(Pukyong
National University, Korea)
O6-4    Word Lip Reading in Various Tones
Takeshi Saitoh, Hiroyuki Ishikura and Ryosuke Konishi(Tottori University, Japan)

Poster 2:  13:10 – 14:40
Chair : Hyuk, Jeong(ETRI, Korea), Kenji Terada(The University of Tokushima, Japan)
Recognition and Detection
P2-1    Farsi and Latin Script Identification in Printed Bilingual Documents
Malike Khoddami and Alireza Behrad(University of Shahed, Iran)
P2-2    N–Dimensional Principal Component Analysis
Hongchuan Yu and Jian J.Zhang(Bournemouth University, UK)
P2-3    Membership Propagation for Automatic Extraction of Salient Objects
Weiwei Du(Kyoto Institute of Technology, Japan) and Kiichi Urahama(Kyushu University, Japan)
P2-4    A Skeleton Extraction and Pruning Algorithm based on Bisector Angle
Le Zhang(University of Tokushima, Japan), Qing He, Xin Luo(Donghua University, China), Kenji Kita(University of
Tokushima, Japan)
P2-5    Finding a Sub–optimal Combination of the Binary Classifiers for Multi-class Classification Problems
Yoshito Murayama, Tetsu Matsukawa(University of Tsukuba, Japan) and Takio Kurita(National Institute of
Advanced Industrial Science and Technology, Japan)
P2-6    Multi-modal User Recognition based on Environmental Parameters
Hye–Jin Kim, Do–Hyung Kim, Su–Young Chi and Jae–Yeon Lee(ETRI, Korea)
P2-7    Detecting Small Objects in Natural Scene using Depth Cue
Jae–Sik Park, Yekeun Jeong, Chaehoon Park and In–So Kweon(KAIST, Korea)
P2-8    ROI–based Image Retrieval System on Mobile Device
Sung–Kwan Je, Seon–Tae Kim and Weon–Geun Oh(ETRI, Korea)

Face
P2-9    Multilinear Biased Discriminant Analysis: A Novel Method for Facial Action Unit Representation
Mahmoud Khademi, Mehran Safayani and Mohammad T. Manzuri–Shalmani(Sharif University of Tech., Iran)
P2-10 Decision Method of the Material Characteristics by Using Three Wavelength Images
Shohei Moriakwa, Kazuhiro Yamamoto, Kunihito Kato(Gifu University, Japan), Yoshikatsu Kimura and Kiyosumi Kidono(TOYOTA Central R&D Lab., Inc., Japan)

P2-11 Improvement of the Mouth Part extraction in Facial Caricaturing System PICASSO-2
Naoya Tokuda, Takayuki Fujiwara, Takuma Funahashi and Hiroyasu Koshimizu(Chukyo University, Japan)

P2-12 Real-Time Face Pose Recognition Using a Stereo Camera
Seungwon Lee, Dahee Kim and Joonki Paik(Chung-Ang University, Korea)

P2-13 Face Classification using Local Image Descriptor
Keun-Dong Lee, Seon-Tae Kim, Sung-Kwan Je and Weon-Geun Oh(ETRI, Korea)

P2-14 A Tabletop Interface for Adding Tags to Non-Annnotated Image Collections through Natural Discussion
Kazuma Mishimagi, Masashi Toda and Toshio Kawashima(Future University–Hakodate, Japan)

P2-15 An Image Processing Parameter Retrieval with Attended Subspace Shifting in Audition Interface
Tokihiro Kimura(Sogogijutsu Kogakuin, Japan), Hidehiro Ohki and Naomichi Sueda(Oita University, Japan)

P2-16 Query-by-Sketch Image Retrieval System focused on Stroke Order
Toru Arikawa, Takashi Hisamori and Gosuke Ohashi(Shizuoka University, Japan)

P2-17 Recognition of Character Handwriting Gesture by Multi-camera Vision
Sachio Honda and Toshio Asano(Hiroshima Institute of Technology, Japan)

P2-18 A Video Streaming System for Object Tracking using the Position of the Head
Tomohisa Wada, Kazuhiro Yamamoto and Kunihito Kato(Gifu University, Japan)

P2-19 Yet Another Representation of SO(3) by Spherical Functions for Pose Estimation
Toru Tamaki(Hiroshima University, Japan), Toshiyuki Amano(Nara Institute of Science and Technology, Japan) and Kazufumi Kaneda(Hiroshima University, Japan)

P2-20 Comparison of 3 DOF Pose Representations for Pose Estimations
Kengo Harada, Satoko Tanaka, Toru Tamaki, Bisser Raytchev, Kazufumi Kaneda(Hiroshima University, Japan) and Toshiyuki Amano(Nara Institute of Science and Technology, Japan)

P2-21 Spatial Interface utilizing Real-time Stereo Vision without Calibration
Eunjin Koh(ETRI, University of Science and Technology, Korea), Jongho Won and Junseok Park(University of Science and Technology, Korea)

P2-22 A Background Analysis Technique for Video Liveness Detection
Young-Whan Kim, Soon-Young Park(Mokpo National University, Korea), Jang-Hee Yoo, Ki-Young Moon(ETRI, Korea) and Kyoung-Ho Choi(Mokpo National University, Korea)

P2-23 A Reversible Authentication Framework Applicable to Video Contents
Seungwu Han and Haekwang Kim(Sejong University, Korea)

P2-24 Learning Touch Gestures using HMM on Tabletop Display
Jae-Wan Park, Jong-Gu Kim, Dong-Min Kim(Chonnam National University, Korea), Min-Yeong Chong(Kwangju Women’s University) and Chil-Woo Lee(Chonnam National University, Korea)

P2-25 A Hand Pose Estimation Using Chamfer Matching and Particle Filter
You-Shin Park, Chi-Min Oh, Min-Wook Kim and Chil-Woo Lee(Chonnam National University, Korea)

P2-26 A Method for Counting Passerby by Length and Breadth Measurement Line
Kenta Fujimoto and Kenji Terada(The University of Tokushima, Japan)

P2-27 A Method of Detection of Moving Objects by Using a Surveillance Camera on the Campus
Yusuke Watabe and Kenji Terada(The University of Tokushima, Japan)

P2-28 A Method for Counting Passer-by in Public Life Space
Koki Nakagawa and Kenji Terada(The University of Tokushima, Japan)

P2-29 A Method of Tracking Persons by Using the Internet Camera
Takahiro Suemune and Kenji Terada(The University of Tokushima, Japan)

P2-30 Multiple View based Object Recognition using Color Distribution for Automatic Surveillance System
Hyun-Uk Chae, Byung-Seok Woo and Kang-Hyun Jo(University of Ulsan, Korea)
ITS(2)
P2-31 Development of Simulator for Comprehensively Measuring Driving Ability for Elderly Safe Driving
Tetsuya Fujimaki, Toshiaki Kasukabe(Meijo University, Japan), Katsumi Matsuda(FORUM8 Co., Ltd.), Osami Yamamoto, Muneo Yamada, Shin Yamamoto and Tomoaki Nakano(Meijo University, Japan)

P2-32 Training Method for Improving Cognitive Function of Middle Age While Driving and Evaluation of Its Effects
Masahito Ando, Youhei Kondo, Hatsuou Yamasaki, Muneo Yamada, Shin Yamamoto and Tomoaki Nakano(Meijo University, Japan)

P2-33 On a System for Screening Older Adults with Early Dementia by Driving Performance
Yosuke Nagase, Osami Yamamoto, Muneo Yamada, Shin Yamamoto and Tomoaki Nakano(Meijo University, Japan)

P2-34 Study to Improve Detection Accuracy of Suspicious Behaviors and Intrusion Detection of Suspicious Persons Inside a Vehicle
Takashi Kitayama, Yutaro Suzuki, Keizo Jindo, Tomoaki Nakano, Shin Yamamoto and Muneo Yamada(Meijo University, Japan)

Recognition and Estimation(3) (Oral 7) : 14:40 - 16:00
Chair : Jae-Ho, Lee(ETRI, Korea), Hirooki Aoki(Nagoya Institute of Technology University, Japan)

O7-1 Finding Defects in Regular-Texture Images
Il-Koo Ahn and Chang-Ick Kim(KAIST, Korea)

O7-2 Decomposition and Detection of Multiple Object Categories through Automatic Topic Optimization
Dipankar Das, Yoshinori Kobayashi and Yoshinori Kuno(Saitama University, Japan)

O7-3 Towards Improving the KLT Tracker for Real-time Image Georeferencing Using GPS/INS Data
Supannee Tanathong and Impyeong Lee(The University of Seoul, Korea)

O7-4 Combined Feature Extraction from Global/Local Statistics of Visual Words using Relevant Operations
Tetsu Matsukawa(University of Tsukuba, Japan) and Takio Kurita(National Institute of Advanced Industrial Science and Technology, Japan)

3D Sensing(2) (Oral 8) : 16:10 - 17:30
Chair : Kang-Hyun, Jo(Ul-San University, Korea), Toru Tamaki(Hiroshima University, Japan)

O8-1 Real-Time Occlusion Culling for Augmented Reality
Sae-Woon Ryu, Jae-Hyek Han(Hanyang University, Korea), Jae-Ha Jeong(Solutonix Corporation), Sang-Hwa Lee(Seoul National University, Korea) and Jong-II Park(Hanyang University, Korea)

O8-2 Noncontact Respiration Measurement under Pedaling Motion Using Slit-light Array Pattern Projection
Hirooki Aoki(Nagoya Institute of Technology, Japan), Kohji Koshiji(Tokyo University of Science, Japan), Masamichi Sakaguchi and Hideo Fujimoto(Nagoya Institute of Technology, Japan)

O8-3 Context-Based Tone Reproduction for High Dynamic Range Imaging
Joo-Hyun Lee and Je-Chang Jeong(Hanyang University, Korea)

O8-4 Extraction of Corresponding Points from Stereo Road Images
Yuri Harada and Hitoshi Saji(Shizuoka University, Japan)