

KS *Keynote Speech* **September 3**
Room 402 **10:00-11:50**
Chair **Shota Nakashima, Yamaguchi University, Japan**

KS-1 *Lessons Learned from Developing Intelligent Systems*
Prof. Vasily G. Moshnyaga Fukuoka University, Japan

KS-2 *Pervasive Sensing and Healthcare Applications*
Prof. Sozo Inoue Kyushu Institute of Technology, Japan

OS *Intelligent System* **September 3**
Room 611 **13:40-15:20**
Chair **Seiichi Serikawa, Kyushu Institute of Technology, Japan**

OS-1 *Remote Power Strip with Zero Standby Power Controllable from Every Direction*
Daichi Koide Kyushu Institute of Technology, Japan
Kazunari Yoshikawa Kyushu Institute of Technology, Japan
Akira Yamawaki Kyushu Institute of Technology, Japan

OS-2 *Improvement of Reconstruction of Fourier Computer-generated Hologram Using Phase Freedom*
Daiki Yasukouchi Kyushu Institute of Technology, Japan
Yosuke Koga Kyushu Institute of Technology, Japan
Shiyuan Yang Kyushu Institute of Technology, Japan

OS-3 *Varmint Countermeasure System*
Ayaka Ito National Institute of Technology, Kitakyushu College, Japan
Seiichi Serikawa Kyushu Institute of Technology, Japan
Yuhki Kitazono National Institute of Technology, Kitakyushu College, Japan

OS-4 *Improvement of System to Fold T-shirt in the State of Hanging*
Takumi Saruhashi National Institute of Technology, Kitakyushu College, Japan
Ryunosuke Miyamoto Molex Japan Co., Ltd., Japan
Shenglin Mu National Institute of Technology, Hiroshima College, Japan
Takaaki Akimoto National Institute of Technology, Kitakyushu College, Japan
Yuhki Kitazono National Institute of Technology, Kitakyushu College, Japan

OS-5 *Improvement of Display Unit in Generic Verification Environment for Video Image Processing Hardware on FPGA*
Gen Nishizawa Kyushu Institute of Technology, Japan
Kazunari Yoshikawa Kyushu Institute of Technology, Japan
Akira Yamawaki Kyushu Institute of Technology, Japan

GS1 *Image Processing 1* **September 3**
Room 612 **13:40-15:20**
Chair **Hideaki Orii, Fukuoka University, Japan**

GS1-1 *Piecewise Constant Histogram Specification for False Contour-Free Contrast Enhancement*
Hengjun Yu Kyushu University, Japan
Kohei Inoue Kyushu University, Japan
Kenji Hara Kyushu University, Japan
Kiichi Urahama Kyushu University, Japan

GS1-2 *Enhanced Restoration of Ill-Conditioned Photographs*
Lei Hang Kyushu University, Japan
Kohei Inoue Kyushu University, Japan
Kiichi Urahama Kyushu University, Japan

GS1-3 *Contrast Enhancement of Ultrasound Image of Knee Joint Cartilage by Using Multipurpose Beta Optimized Recursive Bi-Histogram Equalization Method*
Md Belayet Hossain University Malaya, Malaysia
Belinda Pinguan-Murphy University Malaya, Malaysia
Yan Chai Hum MIMOS Berhad, Malaysia
Khin Wee Lai University Malaya, Malaysia

GS1-4 *Sharpening Interpolated Image by Using Cube of Pixel Difference*
Naoki Ono Kyushu University, Japan
Kiichi Urahama Kyushu University, Japan

GS2	<i>Information & Communications Technology 1</i>	September 3
Room 613		13:40-15:20
Chair	Shota Nakashima, Yamaguchi University, Japan	
GS2-1	<i>Large-Scale Web Traffic Log Analyzer on Hadoop Distributed File System</i> Choopan Rattanapoka Prasertsak Tiawongsombat	King Mongkut's University of Technology North Bangkok, Thailand King Mongkut's University of Technology North Bangkok, Thailand
GS2-2	<i>Parameter Estimation of Bilinear Digital Systems Using Differential Evolution Algorithm</i> Wei-Der Chang Shun-Peng Shih Yi-Ting Hsiao Yu-Ting Xia Tien-Yu Liang Hao-Tse Huang	Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan
GS2-3	<i>CAD Model-based 3D Object Pose Estimation using an Edge-Based Nonlinear Model Fitting Algorithm</i> Chi-Yi Tsai Wei-Yi Wang Chi-Hung Huang Bo-Ren Shih	Tamkang University, Taiwan Tamkang University, Taiwan Tamkang University, Taiwan Tamkang University, Taiwan
GS2-4	<i>3D Model Retrieval Using 3D-DFT Spectral and Cepstral Descriptors of Local Octants</i> Chang-Hsing Lee Jau-Ling Shih Yu-Hau Liu	Chung Hua University, Taiwan Chung Hua University, Taiwan Chung Hua University, Taiwan
GS2-5	<i>Error Reduction Algorithm for the Generation of a Kinoform with Laser Diode Array</i> Takayuki Yokoyama Yosuke Koga Shiyuan Yang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

GS3	<i>Sensing System</i>	September 3
Room 611		15:40-17:00
Chair	Makoto Miyauchi, National Institute of Technology, Kitakyushu College, Japan	
GS3-1	<i>Development of a Measurement System of a Body Conduction Sound using Wireless LAN</i> Fumiaki Ehara Ryouhei Tanaka Kanya Tanaka	National Institute of Technology, Ube College, Japan National Institute of Technology, Ube College, Japan Yamaguchi University, Japan
GS3-2	<i>A Smart Reporting System for Determining the Physiological State and Body Posture of Elderly People</i> Shun-Peng Shih Wei-Der Chang Tien-Yu Liang Hao-Tse Huang Yi-Ting Hsiao Yu-Ting Xia	Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan
GS3-3	<i>Sensing Technologies for In-Home Monitoring of People with Dementia</i> Toshin Ryu Vasily Moshnyaga Osamu Tanaka Koji Hashimoto	Fukuoka University, Japan Fukuoka University, Japan Fukuoka University, Japan Fukuoka University, Japan
GS3-4	<i>Three Dimensional Position Detection Using a Two Dimensional PSD and a Marker Composed of Two Light Sources</i> Kosuke Onishi Daisuke Tanaka Shiyuan Yang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

GS4 Image Processing 2		September 3
Room 612		15:40-17:00
Chair	Huimin Lu, Kyushu Institute of Technology, Japan	
GS4-1	<i>Visual Secret Sharing by Speckle Pattern Illumination</i> Katsuhiro Uno Hoang Hoa Tien Dung	Ibaraki University, Japan Ibaraki University, Japan
GS4-2	<i>Multi Image Stitching with Cylindrical Surface Base on Local Feature Matching for Solving the Distortion Problem</i> Natthavut Vong a nun Chatklaw Jareonpon	Maharakham University, Thailand Maharakham University, Thailand
GS4-3	<i>An optimized Window Memoization Architecture for High Performance and Accurate Image Processing</i> Mojtaba Farzmahdi Luo Rong	Tsinghua University, China Tsinghua University, China
GS4-4	<i>Study of Innovating Threshold Value Processing for Character Detection in Scene Image</i> Kosuke Ozaki Yosuke Higashinaka Lifeng Zhang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

GS5 Industrial Application Technology 1		September 3
Room 613		15:40-17:00
Chair	Shenglin Mu, National Institute of Technology, Hiroshima College, Japan	
GS5-1	<i>Dynamically Weighted DTW for Dynamic Full-Body Gesture Recognition</i> Hyo-Rim Choi Hye Yeon Cho Tae Yong Kim	Chung-Ang University, South Korea Chung-Ang University, South Korea Chung-Ang University, South Korea
GS5-2	<i>Design of Stable Controllers with Switching Method For Three-DOF Underactuated Manipulators</i> Keisuke Ichida Shun Katayama Keigo Watanabe	National Institute of Technology, Ube College, Japan National Institute of Technology, Ube College, Japan Okayama University, Japan
GS5-3	<i>Hierarchical Hidden Markov Model for Finger Language Recognition</i> Jae-Hong Kwon Hong-Jun Joo Tae-Young Kim	Chung-Ang University, South Korea Chung-Ang University, South Korea Chung-Ang University, South Korea
GS5-4	<i>Evaluation and Estimation of Fatigue on Long-distance Driving</i> Ryosuke Sugie Toshiya Arakawa Kazuhiro Kozuka	Aichi University of Technology, Japan Aichi University of Technology, Japan Aichi University of Technology, Japan

PS Room 607	Poster Session	September 4 10:00-11:00
PS-1	Construction of Cyclically Permutable Codes From Cyclic Codes Ting-Ya Yang Houshou Chen Kuo-Cheng Chung	National Chung Hsing University, Taiwan National Chung Hsing University, Taiwan National Chung Hsing University, Taiwan
PS-2	Face Recognition System on Mobile using Similarity Data Mining Technique Chatklaw Jareanpon	Maharakham University, Thailand
PS-3	Elimination of Signal-resembled Anomalies in Detected Plate Chai Yan Hum Meng Kim Liang Woon Hock Hon Mokayed Hamam Wee Khin Lai	MIMOS Berhad, Malaysia MIMOS Berhad, Malaysia MIMOS Berhad, Malaysia MIMOS Berhad, Malaysia University Malaya, Malaysia
PS-4	Detecting Fake Face Input for Face Authentication by DCT with Compensating the Main Spindle Position of Face Ryo Furuie Yuji Goda Lifeng Zhang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
PS-5	Evaluation of Learning Samples for Fish Recognition with Machine Learning Kazutaka Sagara Kousuke Katada Lifeng Zhang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
PS-6	Auto Image Calibration for Vehicle Speed Measurement Using Single Camera Yuji Goda Lifeng Zhang Seiichi Serikawa	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
PS-7	Measurement of Chromaticity of Colors Displayed by Switching Two Colors on a Liquid Crystal Display Chikako Ishizawa Mozomi Araya Yoichi Kageyama Makoto Nishida	Akita University, Japan Akita University, Japan Akita University, Japan Akita University, Japan
PS-8	Real-Time Automatic Target Selection and Tracking Algorithm Using Keypoint-Based Template Matching Chi-Yi Tsai Cheng-Jui Yu	Tamkang University, Taiwan Tamkang University, Taiwan
PS-9	Recognition System of Foggy Windshield Side for Semi-automatic Run Takuya Hayashi Shota Nakashima Yuhki Kitazono	National Institute of Technology, Kitakyushu College, Japan Yamaguchi University, Japan National Institute of Technology, Kitakyushu College, Japan
PS-10	Wide Range Fire Extinguish System for Residential Use Kouki Yamaguchi Hayato Takahashi Masahiko Hanada Hiromichi Hanada Kanya Mizuguchi Akinori Fujimoto Seiichi Serikawa Yuhki Kitazono	National Institute of Technology, Kitakyushu College, Japan National Institute of Technology, Kitakyushu College, Japan Hanada Setsubi, Japan Hanada Setsubi, Japan Hanada Setsubi, Japan Fukuoka City Council, Japan Kyushu Institute of Technology, Japan National Institute of Technology, Kitakyushu College, Japan
PS-11	Designing of Humanoid Robot with Voice Recognition Capability Widodo Budiharto Alexander Agung S.G Azani Cempaka Sari Heri Ngarianto	Bina Nusantara University, Indonesia Bina Nusantara University, Indonesia Bina Nusantara University, Indonesia Bina Nusantara University, Indonesia

GS6 Image Processing 3		September 4
Room 611		13:00-14:20
Chair	Lifeng Zhang, Kyushu Institute of Technology, Japan	
GS6-1	<i>Aerial Robot Simultaneous Localization and Mapping with a Monocular Vision</i> Yin-Tien Wang Ting-Wei Chen Jr-Syu Yang	Tamkang University, Taiwan Tamkang University, Taiwan Tamkang University, Taiwan
GS6-2	<i>Improvement of Patch Selection in Exemplar-based Image Inpainting</i> Qian Fan Lifeng Zhang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS6-3	<i>An Efficient Method of Parallax Adjustment for Stereo Camera Systems Based on Image Processing</i> Lei Wang Zining Zhen Xiaolin Zhang Makoto Sato	Tokyo Institute of Technology, Japan Shanghai Bizhi Bionics Technology Co., Ltd., China Shanghai Institute of Microsystem and Information Technology, China Tokyo Institute of Technology, Japan
GS6-4	<i>Biometrical Verification Based on Infrared Heat Vein Patterns</i> Elnaz Mazandarani Kaori Yoshida Mario Köppen Ulrike Lucke	University of Potsdam, Germany Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan University of Potsdam, Germany

GS7 Information & Communications Technology 2		September 4
Room 612		13:00-14:20
Chair	Sozo Inoue, Kyushu Institute of Technology, Japan	
GS7-1	<i>Automatic Advertisement System using Text Mining Technique</i> Chatklaw Jareanpon	Maharakham University, Thailand
GS7-2	<i>Synchronization of Discrete Sprott Chaotic Systems and Its Application in Secure Communication</i> Hang-Hong Kuo Teh-Lu Lian Jun-Juh Yan Yu-Chen Hsu	NeoVictory Technology Co., Ltd., Taiwan National Cheng Kung University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan
GS7-3	<i>Opinion Mining of Thai Politics on Facebook Status Updates</i> Panida Songram Chatklaw Jareanpon	Maharakham University, Thailand Maharakham University, Thailand
GS7-4	<i>Feature-Based Opinion Mining on Smart Phone Reviews</i> Mongkol Saensuk Panida Songram Phatthanaphong Chomphuwiset	Maharakham University, Thailand Maharakham University, Thailand Maharakham University, Thailand

GS8	Image Recognition	September 4
Room 613		13:00-14:20
Chair	Huimin Lu, Kyushu Institute of Technology, Japan	
GS8-1	<i>Fluctuation in Recognition Accuracy due to Utterance Experience in Command Input Interface using Lip Motion</i> Tsuyoshi Takahashi Ayumu Saito Yoichi Kageyama Masaki Ishii Makoto Nishida	Akita University, Japan Akita University, Japan Akita University, Japan Akita Prefectural University, Japan Akita University, Japan
GS8-2	<i>The Comparison of Template Matching and SURF for Logo Classification on Product</i> Thummarat Boonrod Chatklaw Jareanpon Phatthanaphong Chomphuwiset	Maharakham University, Thailand Maharakham University, Thailand Maharakham University, Thailand
GS8-3	<i>Effects of the Stochastic Resonance for Face Detection on Dark and Illumination Variant Images</i> Bikash Lamsal Noriko Kojima Naofumi Matsumoto	Ashikaga Institute of Technology, Japan Ashikaga Institute of Technology, Japan Ashikaga Institute of Technology, Japan
GS8-4	<i>Automatic Registration of Phalanges Regions in CR Images Based on Scale-Invariant Salient Region Features</i> Shota Kajihara Seichi Murakami Hyoungseop Kim Joo Kooi Tan Seiji Ishikawa	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

GS9	Industrial Application Technology 2	September 4
Room 611		14:40-16:40
Chair	Akira Yamawaki, Kyushu Institute of Technology, Japan	
GS9-1	<i>Land Cover Classification Using RapidEye Data to Estimate the Amount of Disaster Waste</i> Hikaru Shirai Yoichi Kageyama Azuma Ohuchi Toshihiko Takaya Makoto Nishida	Akita University, Japan Akita University, Japan Tohoku University, Japan SENDAI KANKYO KAIHATSU Co., LTD., Japan Akita University, Japan
GS9-2	<i>Simulation and FEM Analysis of Applied Force Effects for Energy Harvesting in Piezoelectric Bimorph Device</i> Panapong Songsukthawan Chaayan Jettanasen	King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand
GS9-3	<i>Performance Evaluation of Solar Rooftop System</i> Apichart Yodkhuang Atthapol Ngaopitakkul	King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand
GS9-4	<i>Use of Neural Network Classifier for Detecting Human Emotion via Speech Spectrogram</i> Sathit Prasomphan	King Mongkut's University of Technology North Bangkok, Thailand
GS9-5	<i>A Survey on non-DTN and DTN Geographic based Protocols for VANETS</i> Radityo Anggoro Royyana Muslim I M. Hatem A A	Institut Teknologi Sepuluh Nopember, Indonesia Institut Teknologi Sepuluh Nopember, Indonesia Sana's University, Yemen

GS10 Voice Recognition		September 4
Room 612		14:40-16:40
Chair Mitsunori Mizumachi, Kyushu Institute of Technology, Japan		
GS10-1	Implementation of Directional Characteristics by Real-time Processing of Sounds Observed by Three Microphones Kiyoteru Hayama Takaaki Ishibashi Hirohito Shintani Minoru Motoki Hiromu Gotanda	National Institute of Technology, Kumamoto College, Japan National Institute of Technology, Kumamoto College, Japan National Institute of Technology, Kumamoto College, Japan National Institute of Technology, Kumamoto College, Japan Kinki University, Japan
GS10-2	Study of the Approach Vehicle Detection by the Supersonic Wave Yoshihiro Furuno Yuto Tanaka Yoshihisa Nakatoh	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS10-3	Singing System by Electric-Larynx Using LPC Residual Wave Takashi Himeno Yuto Tanaka Mitsunori Mizumachi Yoshihisa Nakatoh Kenji Matsui	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Osaka Institute of Technology, Japan
GS10-4	Study of Text Reading Method Using Important Words on Web Sites for visual impaired Takumi Misawa Yuto Tanaka Yoshihisa Nakatoh	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS10-5	Study of the Volume Limit for Hearing Protection in the Music Listening Teruhisa Higashi Yuto Tanaka Yoshihisa Nakatoh	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS10-6	Study of Word Intelligibility Based on Control of ITD or ILD on Binaural Hearing Ryota Fujiwara Yuto Tanaka Yoshihisa Nakatoh	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

GS11 Electrical Technology		September 4
Room 613		14:40-16:40
Chair Fumiaki Ehara, Ube National College of Technology, Japan		
GS11-1	Quantification of Urushi Dissolution by Ultraviolet Irradiation for an Urushi - based Electronic Circuit Yu Myojin Yuki Hashimoto	University of Tsukuba, Japan University of Tsukuba, Japan
GS11-2	Prediction of the Lightning Location for Transmission Systems using the characteristics of transient current waveform and travelling wave method Praikanok Lertwanitrot Atthapol Ngaopitakkul Sulee Bunjongjit	King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand Rajamangala University of Technology Rattanakosin, Thailand
GS11-3	Study of Characteristics of Fault in Overhead and Underground Cable Distribution System Using Experimental Test Bench Piladelak Yindeesap Atthapol Ngaopitakkul Monthon Leelajindakraierk	King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand
GS11-4	Characteristics and Behaviour of Transient Current during Fault Occurrence on Hybrid Overhead line and Underground Cable Distribution System Tussanai Satharpornmongkollert Atthapol Ngaopitakkul Chaichan Pothisarn	King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand
GS11-5	A Study of Attenuation of Conducted EMI Generation in a Switching Power Supply Using Filtering Technique Piyawit Sripodok Chaiyan Jettanasen	King Mongkut's University of Technology Ladkrabang, Thailand King Mongkut's University of Technology Ladkrabang, Thailand
GS11-6	Short Circuit Detection in Stator Winding Of Three Phase Induction Motor Using Wavelet Transform and Quadratic Discriminant An Dimas Anton Asfani I Made Yulistya Negara P. Perdana Surya	Institut Teknologi Sepuluh Nopember, Indonesia Institut Teknologi Sepuluh Nopember, Indonesia Institut Teknologi Sepuluh Nopember, Indonesia