

KS	Keynote Speech	September 6
Room 103		10:00-11:30
Chair	Rong Zhang, Nishinippon Institute of Technology, Japan	
KS-1	<i>Mimicking Nature for Reliable and Secure Computer Systems</i> Elhadj Benkhelifa	
KS-2	<i>Object Detection for Autonomous Driving</i> Wen-Hui Chen	
KS-3	<i>Squirrel-cage Induction Motor with Voltage Unbalance Compensation for Power System Application</i> Akihiro Imakiire	
GS1	Session 1	September 6
Room 202		13:30-15:00
Chair	Fumiaki Ehara, National Institute of Technology, Ube College, Japan	
GS1-1	<i>A Multi-class Defect Detection Network for Cooker Surface</i> Wenbiao Zhou, Jiao Zhang, Wenbin Liu, Pengfei Wan, Jiakui Liu, Ke Zhou	
GS1-2	<i>Study on Cost Evaluation of DC Smart Houses</i> Kentaro Shimomachi, Yuji Mishima	
GS1-3	<i>Improving English Listening Accuracy of Native Japanese by ACE Method</i> Ryota Yasui, Yutaka Suzuki, Yasuyuki Satoh, Osamu Sakata	
GS1-4	<i>Proposal of Abnormal Sound Detection System using OCSVM</i> Hikaru Ito, Fumiaki Ehara, Yoshihiko Muto	
GS2	Session 2	September 6
Room 204		13:30-15:00
Chair	Akihiro Imakiire, Kyushu Institute of Technology, Japan	
GS2-1	<i>SIR Model with the Person Trip to Analyze the Epidemic of Influenza</i> Ryo Sakamaki, Satoru Fujita	
GS2-2	<i>Real-time and Continuous Floor Fingerprint Identification</i> Satoru Fujita	
GS2-3	<i>Quantitative Stress Analysis using Heart Rate Variability</i> Sayaka Ueno, Runhe Huang, Satoru Fujita	
GS2-4	<i>Jointly Embedding Knowledge Graph and Word Vectors</i> Tomu Kadoki, Runhe Huang, Satoru Fujita	
GS3	Session 3	September 6
Room 205		13:30-15:00
Chair	Shenglin Mu, Ehime University, Japan	
GS3-1	<i>Leg Telescopic Folding Table using Servomotors</i> Takaaki Ikeda, Yuhki Kitazono	
GS3-2	<i>Blinker Operation System using Voice Recognition and Image Processing</i> Ryokan Tashiro, Seiichi Serikawa, Yuhki Kitazono	
GS3-3	<i>Development of a Virtual Disaster Evacuation Drill System using Augmented Reality Technology</i> Sota Sato, Takaaki Akimoto	
GS3-4	<i>Development of Handkerchief Automatic Folding Device</i> Raiki Shigeta, Yuhki Kitazono	
GS3-5	<i>Left Alone Umbrella Prevention System</i> Takami Hatanaka, Yuhki Kitazono	

GS4	Session 4	September 6
Room 202		15:20-16:40
Chair	Chao Zhang, University of Fukui, Japan	
GS4-1	<i>Study on Stage Generation for 2D Action Game based on DC-GAN</i> Kotaro Nagahiro, Sho Ooi, Mutsuo Sano	
GS4-2	<i>Point Cloud Filtering via Generalized Gaussian Mixture Model</i> Chunzhi Gu, Kota Ushiwaka, Shogo Tokai, Chao Zhang	
GS4-3	<i>Self-Supervised Correlational Monocular Depth Estimation using ResVGG Network</i> Kuo Shiuang Peng, Ditzler Gregory, Jerzy Rozenblit	
GS4-4	<i>Speed Control of Ultrasonic Motor using a Variable Gain Type PID Control Based on Neural Networks</i> Shenglin Mu, Satoru Shibata, Tomonori Yamamoto, Shota Nakashima, Kanya Tanaka	

GS5	Session 5	September 6
Room 204		15:20-16:40
Chair	Wen-Hui Chen, National Taipei University of Technology, Taiwan	
GS5-1	<i>Development of Glass Phosphor against Anti-Crone Ceramics</i> Masaki Fujikawa, Mariko Hara, Yusuke Ozaki, Shingo Fuchi	
GS5-2	<i>A Method of Firing Nearly Invisible 2D Code with Public and Secret Information on Ceramic Products</i> Masaki Fujikawa, Yui Ueno, Daiji Osawa, Eigo Nishimura, Koutaro Gomi, Hideki Iwasaki, Toshiaki Harada, Naoki Adachi	
GS5-3	<i>Visual Expression of Volumetric Smoke Animation by Dynamic Luminance Information</i> Yusuke Chiba, Takafumi Koike	
GS5-4	<i>An OpenPose Based Method to Detect Texting while Walking</i> Hiroshi Hanaizumi, Haruhi Misono	

SS	Bioinstrumentation, Affective Computing and Humanware Engineering	September 6
Room 205		15:20-16:40
Chair	Satoshi Watanabe, International University of Health and Welfare, Japan	
SS-1	<i>Influence from Imagining-Accuracy on Relaxation Effects during Imagining Music</i> Ryo Furukawa, Yusuke Mitani, Yuya Chiba, Yoshiko Maruyama, Kenji Moriya, Masahiro Nakagawa	
SS-2	<i>Evaluation of Comfort in a Swinging Chair by Utilizing Brainwaves and Heartbeat Fluctuation</i> Keiji Matsumoto	
SS-3	<i>Subjective Evaluation Experiment of Grayscale Color to Examine VAS Measurement Method</i> Naruki Shirahama, Kaito Murakami, Satoshi Watanabe, Naofumi Nakaya, Yukio Mori	
SS-4	<i>Impressions of One Minor Music Based on Visual Analog Scale by Two Groups of Participants</i> Satoshi Watanabe, Naruki Shirahama, Naofumi Nakaya, Yuji Matsumoto, Yukio Mori	

GS6	Session 6	September 7
Room 202		10:00-11:20
Chair	Hideaki Orii, Fukuoka University, Japan	
GS6-1	<i>Analysis of Words Related to Mistypes</i> Ryuki Komatsu, Rin Hirakawa, Hideaki Kawano, Kenichi Nakashi, Yoshihisa Nakatoh	
GS6-2	<i>Defect Reports Classification with pre-trained BERT</i> Rin Hirakawa, Keitaro Tominaga, Yoshihisa Nakatoh	
GS6-3	<i>Image Transformation Method to Refine Handwritten Characters Using Generative Adversarial Networks</i> Takuya Takahashi, Hideaki Orii, Hideaki Kawano	
GS6-4	<i>Indoor Location Estimation using Three Photodiodes and Ceiling LED Lights</i> Kanako Kinoshita, Shiyuan Yang, Seiichi Serikawa	

GS7	Session 7	September 7
Room 204		10:00-11:20
Chair	Shiyuan Yang, Kyushu Institute of Technology, Japan	
GS7-1	<i>Proposal of Character Correction Method using Database</i> Takahiro Fujishima, Ken Kariya, Lifeng Zhang	
GS7-2	<i>Development of OCR Mobile Application Including Miss-recognized Proofreading System Using Database Search Algorithm</i> Ken Kariya, Takahiro Fujishima, Lifeng Zhang	
GS7-3	<i>Preprocessing Method for Training Dataset in Character Recognition using Convolutional Neural Network</i> Akase Taku, Hitoshi Nakao, Lifeng Zhang	
GS7-4	<i>Research for Improving Identification Accuracy of Specific Fish Species with CNN</i> Yuta Shoji, Lifeng Zhang	

SSS1	Student Special Session 1	September 7
Room 205		10:00-11:20
Chair	Student, Kyushu Institute of Technology, Japan	
SSS1-1	<i>A Proposal of Method for Position Measurement of Active Landmark Using Image Processing and Ultrasonic Sensor</i> Takumi Matoba, Naoyuki Ishijima, Seiichi Serikawa	
SSS1-2	<i>Development of Solar Shading System for Preventing Driving Accidents Using Transparent Display</i> Shintaro Matsuo, Seiichi Serikawa, Shiyuan Yang	
SSS1-3	<i>Proposal of Obstacle Detection and Shape Recognition Method for Transfer Robot Using Line Laser and Camera</i> Suetsugu Miki, Shiyuan Yang, Seiichi Serikawa	
SSS1-4	<i>Product Discrimination System Using Deep Learning</i> Hitoshi Nakao	
SSS1-5	<i>Development of the System which Recognize of Mark of "Stop" and Judge Stop Status by In-vehicle Camera</i> Ryota Kaneto, Lifeng Zhang	
SSS1-6	<i>Comparison of Unsteady Temperature Analysis and Measurement Value of Quasi-spherical Satellite Orbiting Low Earth Orbit, and Validity Evaluation of Thermal Control System Design</i> Naofumi Yamagata	
SSS1-7	<i>Evaluation of All-Solid-State Lithium-ion Battery Under Thermal and Vacuum Environment for Satellite Application</i> Ken Hatanaka	
SSS1-8	<i>Diamond Growth of {111} Surfaces on Diamond Grain Using Trimethylphosphine by Hot Filament Chemical Vapor Deposition</i> Mori Daichi, Yuki Katamune, Akira Izumi	
SSS1-9	<i>Non-Fermi Liquid Behavior in Hole Doped Pyrochlore Y₂Ir₂O₇</i> Hironori Nomura	

GS8	Session 8	September 7
Room 202		13:00-14:20
Chair	Seiichi Serikawa, Kyushu Institute of Technology, Japan	
GS8-1	<i>An Application of Multi-Face Recognition Based on Feature Extraction</i> Dongqin Gu, Seiichi Serikawa, Lifeng Zhang	
GS8-2	<i>Development of Memory Support System by Smart Glasses</i> Zijun Yang, Seiichi Serikawa	
GS8-3	<i>Product Discrimination System Using Deep Learning</i> Hitoshi Nakao, Taku Akase, Lifeng Zhang	
GS8-4	<i>Development of the System which Recognize of Mark of "Stop" and Judge Stop Status by In-vehicle Camera</i> Ryota Kaneto, Lifeng Zhang	

GS9	Session 9	September 7
Room 204		13:00-14:20
Chair	Akira Yamawaki, Kyushu Institute of Technology, Japan	
GS9-1	<i>A Semi-Dense Feature-based VSLAM System</i> Zhen Li, Yuren Du, Lifeng Zhang	
GS9-2	<i>The Temperature Warning System based on the Renesas MCU</i> Miao Miao Zhu, Shengrong Gong, Zhenjiang Qian, Lifeng Zhang	
GS9-3	<i>A Brief Review on Cycle Generative Adversarial Networks</i> Miao Miao Zhu, Shengrong Gong, Zhenjiang Qian, Lifeng Zhang	
GS9-4	<i>Optimization for Greedy Non-maximum Suppression based on Multi-task Convolutional Neural Network</i> Hong Qingqing, Fan Qian, Zhang Lifeng	

SSS2	Student Special Session 2	September 7
Room 205		13:00-14:20
Chair	Student, Kyushu Institute of Technology, Japan	
SSS2-1	<i>Pulse Measurement with Web Camera</i> Kentaro Kajioka, Lifeng Zhang	
SSS2-2	<i>Proposal of Pointing Device for Handicapped Person using Finger Position Detection with Web Camera</i> Masaki Inoue, Lifeng Zhang	
SSS2-3	<i>Development of OCR Mobile Application Including Miss-recognized Proofreading System Using Database Search Algorithm</i> Ken Kariya	
SSS2-4	<i>Proposal of Character Correction Method Using Database</i> Takahiro Fujishima	
SSS2-5	<i>Preprocessing Method for Training Dataset in Character Recognition Using Convolutional Neural Network</i> Akase Taku, Hitoshi Nakao, Lifeng Zhang	
SSS2-6	<i>Growth Control of Graphene on the SiC Substrate Using Ion Beam Irradiation</i> Satoshi Imanami	
SSS2-7	<i>Research for Improving Identification Accuracy of Specific Fish Species with CNN</i> Yuta Shoji	
SSS2-8	<i>Study on the Classification of Road Damage at the Earthquake Using SNS Information</i> Yujiro Mihara, Rin Hirakawa, Hideaki Kawano, Kenichi Nakashi, Yoshihisa Nakatoh	
SSS2-9	<i>Analyze of Acoustic Features to separate Train Announcement</i> Yuto Kinoshita	

GS10	Session 10	September 7
Room 202		14:40-16:00
Chair	Bikash Lamsal, Kajima Technical Research Institute, Japan	
GS10-1	<i>Preliminary Study on Intervertebral Disk Segmentation from Videofluorography by Multi Channelization and CNN</i> Ayano Fujinaka, Kojiro Mekata, Hotaka Takizawa, Hiroyuki Kudo	
GS10-2	<i>Filter Efficiency Analysis for Extracting Mobile Device Signals to Estimate Bus Passengers Population</i> Ryo Nishide	
GS10-3	<i>Extraction of Feature Values using Protein Molecular Surface Data and Prediction of Significant Spot for Preferential Binding of Ligands</i> Aoi Fukazawa, Ryota Tamori, Ryo Nishide, Takenao Ohkawa	
GS10-4	<i>Extraction of Soil Moisture Change Involved in Soybean Yield by Similarity Evaluation Encompassing Time Series Data</i> Kurumi Higashiyama, Ryo Nishide, Takenao Ohkawa, Yuya Chonan, Satoshi Hayashi, Takuji Nakamura, Hiroyuki Tsuji, Noriyuki Murakami, Seiichi Ozawa	

GS11	Session 11	September 7
Room 204		14:40-16:00
Chair	Shota Nakashima, Yamaguchi University, Japan	
GS11-1	<i>Improvement of Lip Extraction Method Using Interpolation Method</i> Etsuro Nakamura, Tsuyoshi Takahashi, Yoichi Kageyama, Masaki Ishii, Makoto Nishida, Motonari Shirasu	
GS11-2	<i>Fuzzy C-Means with Stepwise Level Slice Processing for Water Quality Analysis in Lake Hachiroko</i> Kai Matsui, Yoichi Kageyama, Hiroshi Yokoyama	
GS11-3	<i>Feature Analysis of PC Operation Logs and Biological Information for Estimating Users' Focus of Mind</i> Chikako Ishizawa, Yuki Usami, Yoichi Kageyama, Motonari Shirasu	
GS11-4	<i>A Method to Detect Concentration of Students for E-learning Using Kinect</i> Kenta Kamiya, Takashi Ito, Kenichi Takahashi, Michimasa Inaba	

PS Room 202 Chair	Poster Session Yuhki Kitazono, National Institute of Technology, Kitakyushu College, Japan	September 8 10:00-11:00
PS-1	<i>Development of Omni-Directional Proximity Sensor for Drone</i> Satoshi Tsuji, Teruhiko Kohama	
PS-2	<i>Development of Expandable Self-Capacitive Proximity and Tactile Sensor Module</i> Satoshi Tsuji, Rei Nakamura, Teruhiko Kohama	
PS-3	<i>Job-training Support System using Smartphone Virtual Reality</i> Kenzaburo Miyawaki, Soichi Okabe	
PS-4	<i>Auscultating Diagnosis Support System by Using Self-Organizing Map II -Classification of Eustachian tube insufflation sound-</i> Yutaka Suzuki, Osamu Sakata, Shun'ichi Imamura, Shuichiro Endo, Keisuke Masuyama, Masayuki Morisawa	
PS-5	<i>Detection of Citations by Log Information to Prevent Reference Omissions</i> Hiroyuki Makabe, Chikako Ishizawa, Yoichi Kageyama	
PS-6	<i>Study on a Shipping Slip Assignment Method for Efficiency Improvement of Picking in a Warehouse</i> Wataru Furesawa, Tsuyoshi Takahashi, Yoichi Kageyama, Hachiro Endo, Noriaki Sato	
PS-7	<i>Method for Measuring the Separation between Transmission Lines and Forests Using UAV Data</i> Tatsuya Arai, Yoichi Kageyama, Chikako Ishizawa, Kenji Suehiro, Yoshinori Takahashi, Takuya Kobayashi, Masaki Ishii	
PS-8	<i>Accuracy Improvement of Avalanche Photodiode based Filter-less Spectroscopy by Deep Learning</i> Masahiro Akiyama, Takaya Ishikawa, Takashi Miyazaki	
PS-9	<i>Proposing a Classification Method of Human Behavior Focusing on Orbital Characteristic on Feature Space in a Neural Network</i> Masafumi Chida, Keita Sato, Nahomi Miyamoto Fujiki, Yoshihiro Hayakawa	
PS-10	<i>Automatic Feature Extraction from Wearable Sensor Data by Use of Machine Learnings</i> Keita Sato, Masafumi Chida, Yoshihiro Hayakawa, Nahomi Miyamoto Fujiki	
PS-11	<i>Study on the Number of Calculations and Number of Blinks when Performing Uchida-Kraepelin Psychodiagnostic Test</i> Shunsuke Nakano, Yoichi Kageyama	
PS-12	<i>Trial Production of Kite Wing attached Tricopter with Tilt Front Rotors</i> Kiyoteru Hayama, Tomohiro Kudou, Kazuhiro Koshi, Hiroki Irie	
PS-13	<i>Fundamental Study on Three-dimensional Display Using Water</i> Kazuma Yoshimura, Shigeto Nakamura, Kenichi Iida	
PS-14	<i>Data Embedding Method for Printed Images using Deep Neural Networks</i> Hideaki Orii, Takaharu Kouda, Hideaki Kawano	
PS-15	<i>Measurement of Electric Potential of a Plant using Electroconductive Cloth Sensor</i> Osamu Sakata, Makoto Iwashita, Yasuyuki Satoh, Yutaka Suzuki	
PS-16	<i>Simultaneous Estimation of Horizontal Position and Depth Distance by Kalman Filter and Obriid-Sensor</i> Yuki Horikawa, Shenglin Mu, Daichi Hamasuna, Hidemitsu Arimura, Atsushi Matsubara, Shota Nakashima	