

KS	Keynote Speech	March 29
Conference Room		9:35-11:05
Chair	Rong Zhang, Nishinippon Institute of Technology, Japan	
KS-1	<i>Apply “Design Thinking” to Your Startup</i> Prof. Eric Tao	California State University Monterey Bay, USA
KS-2	<i>Preparation of Complex of Polyaniline and Acrylic Ester Grafting Epoxy for Anticorrosion and Intrinsically Antistatic Coatings</i> Prof. Aiping Zhu	Yangzhou University, China
KS-3	<i>Industrial Robots and Machine Vision</i> Prof. Hitoshi Wakizako	Kyushu Institute of Technology, Japan

OS1	Intelligent System	March 29
Room A		12:30-14:10
Chair	Seiichi Serikawa, Kyushu Institute of Technology, Japan	
OS1-1	<i>Improvement of Reconstruction Resolution of Computer-generated Hologram Using Phase Freedom</i> Daiki Yasukochi Yuki Misaki Yosuke Koga Shiyuan Yang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
OS1-2	<i>Development of Automatic Fire Extinguish System for Residential Use</i> Hayato Takahashi Masahiko Hanada Hiromichi Hanada Kanya Mizuguchi Akinori Fujimoto Seiichi Serikawa Yuhki Kitazono	Kitakyushu National College of Technology, Japan Hanada Setsubi, Japan Hanada Setsubi, Japan Hanada Setsubi, Japan Fukuoka City Council, Japan Kyushu Institute of Technology, Japan Kitakyushu National College of Technology, Japan
OS1-3	<i>Identify a Specified Fish species by the Co-occurrence and Confusion Matrix</i> Ziyue Yan Lifeng Zhang Xuelong Hu Seiichi Serikawa	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Yangzhou University, China Kyushu Institute of Technology, Japan
OS1-4	<i>Extension System of a Field of View for People Losing Sight in One Eye Using Content-Aware Image Resizing</i> Hideaki Orii Shohei Hasegawa Hideaki Kawano Hiroshi Maeda Takaharu Kouda	Fukuoka University, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Fukuoka University, Japan
OS1-5	<i>Method for Controlling the Intensity Distribution of Laser Diode Array Using Computer-generated Hologram</i> Takayuki Yokoyama Misaki Yuki Yosuke Koga Shiyuan Yang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

GS1 Room B Chair	Information Technology I	March 29 12:30-14:10
	Fumiaki Ehara, Ube National College of Technology, Japan	
GS1-1	<i>Coalition Lattice: A Data Structure considering Robustness for Robust Coalition Structure Generation Problem</i> Katsuya Nakano Shun Shiramatsu Tadachika Ozono Toramatsu Shintani	Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan
GS1-2	<i>The Compact Fuzzy Association Rules For Data Classification</i> Phaichayon Kongchai Keerachart Suksut Rattaphong Sutamma	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS1-3	<i>On Comparing Feature Reduction Techniques for Accuracy Improvement of the k-NN Classification</i> Sak Phoemhansa Keerachart Suksut Phaichayon Kongchai Rattaphong Sutamma Nittaya Kerdprasop Kittisak Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS1-4	<i>The Clustering Validity with Silhouette and Sum of Squared Errors</i> Tippaya Thinsungnoen Nuntawut Kaoungku Pongsakorn Durongdumronchai Kittisak Kerdprasop Nittaya Kerdprasop	Nakhon Ratchasima Rajabhat University, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS1-5	<i>Traffic Sign Classification using Support Vector Machine and Image Segmentation</i> Kedkarn Chaiyakhan Anusara Hirunyawanakul Ratiporn Chanklan Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand

GS2 Room C Chair	Electrical Technology I	March 29 12:30-14:10
	Makoto Miyauchi, Kitakyushu National College of Technology, Japan	
GS2-1	<i>Trajectory Following Controller with Vibrational Motion Developed Based on ORiN Middleware Interface</i> Fusaomi Nagata Shohei Hayashi Tomoya Nagatomi Akimasa Otsuka Keigo Watanabe	Tokyo University of Science, Japan Tokyo University of Science, Japan Tokyo University of Science, Japan Tokyo University of Science, Japan Okayama University, Japan
GS2-2	<i>Induced Charge Electrophoresis of a Conducting Cylinder in a Cylindrical Chamber</i> Huicheng Feng Teck Neng Wong Marcos	Nanyang Technological University, Singapore Nanyang Technological University, Singapore Nanyang Technological University, Singapore
GS2-3	<i>Development of Portable PIV Devices</i> Wen-Yi Chang Franco Lin Whey-Fone Tsai Jihn-Sung Lai Chin-Hsiung Loh Shih-Chung Kang	National Applied Research Laboratories, Taiwan National Applied Research Laboratories, Taiwan National Applied Research Laboratories, Taiwan National Taiwan University, Taiwan National Taiwan University, Taiwan National Taiwan University, Taiwan
GS2-4	<i>SubCarrier Index - QAM, A New Hybrid Modulation Scheme for OFDM</i> Mohammad Irfan Oka Danil Saputra Soo Young Shin	Kumoh National Institute of Technology, Korea Kumoh National Institute of Technology, Korea Kumoh National Institute of Technology, Korea

GS3 Room D Chair	Chemical Technology	March 29 12:30-14:10
	Teruhisa Ohno, Kyushu Institute of Technology, Japan	
GS3-1	Preliminary Investigation Related to Physicochemical, Crystallinity, Microstructure and Engineering properties of Starch Isolated from Chempadak seed as Potential Food Ingredient for Industrial Application Phisut Naknaen Chaiyaphan Tharasuk Jittikarn Junjerdee	Srinakharinwirot University, Thailand Srinakharinwirot University, Thailand Srinakharinwirot University, Thailand
GS3-2	Phase Transformation Behaviors of Sb-rich Chalcogenide Films under Isothermal and Constant Heating Rate Annealings Po-Kai Chiu Shih-Feng Tseng Wen-Tse Hsiao Chao-Te Lee Donyau Chiang	National Applied Research Laboratories, Taiwan National Applied Research Laboratories, Taiwan National Applied Research Laboratories, Taiwan National Applied Research Laboratories, Taiwan National Applied Research Laboratories, Taiwan
GS3-3	Optimal Personnel Reallocation in Production Processes Based on the Skills and Knowledge in the Chemical Industry Hajime Eguchi Tomomi Aoyama Kohei Seki Ichiro Koshijima	Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan
GS3-4	Impact of an Organizational Structure on the Resilience of Production Processes Based on Artificial Factors in the Chemical Industry Hajime Eguchi Tomomi Aoyama Kohei Seki Donal O'Donovan Ichiro Koshijima	Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan Cork Institute of Technology, Ireland Nagoya Institute of Technology, Japan

GS4 Room E Chair	Control Technology	March 29 12:30-14:10
	Shenglin Mu, Hiroshima National College of Maritime Technology, Japan	
GS4-1	Adaptive P-D Control for DC Servomotor Tsuyoshi Shiota Hiromitsu Ohmori	Keio University, Japan Keio University, Japan
GS4-2	Advanced Control Design of Four-Rotor Rotorcrafts Tzu-Ching Chang Yung-Yue Chen Bo-Hui Zhou	National Cheng Kung University, Taiwan National Cheng Kung University, Taiwan Taiwan
GS4-3	Variable Gain PID Control of Ultrasonic Motor Using a Novel Hybrid PSO with Improved Searching Ability Shingo Aramaki Motoki Tanaka Shenglin Mu Shota Nakashima Kanya Tanaka	Yamaguchi University, Japan Yamaguchi University, Japan Hiroshima National College of Maritime Technology, Japan Yamaguchi University, Japan Yamaguchi University, Japan
GS4-4	How to Fully Benefit from Function Blocks of Foundation Fieldbus for Digital Cascade Control with High System Safety Puthipong Yimvuthikul Apinai Rerkratn Thanit Trisuwannawat Prasit Julsereewong Amphawan Julsereewong	King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand
GS4-5	PID Reference Tracking Control for Nonlinear Active Vehicle Suspension System Olurotimi Akintunde Dahunsi Jimoh O. Pedro	Federal University of Technology, Nigeria University of the Witwatersrand, South Africa

OS2 Room A Chair	<i>Industrial Application</i>	March 29 14:30-16:30
	Chengyin Wang and Fangping Tang, Yangzhou University	
OS2-1	<i>Preparation of Ionic Liquid-immobilized Expanded Perlite and Its Analytical Application</i> Jie Liu Almojtba Bakheet Xiashi Zhu	Yangzhou University, China Yangzhou University, China Yangzhou University, China
OS2-2	<i>All-Solid-Sate pH Sensing Material Based on Cysteic Acid/Graphene Oxide Nanocomposites</i> Lin Liu Yuting Huang Jing Zhao Zhijie Zhu Huaihao Zhang Chengyin Wang	Yangzhou University, China Dalian University of Technology, China Yangzhou University, China Yangzhou Educational Service Centre, China Yangzhou University, China Yangzhou University, China
OS2-3	<i>The Influence of Hub/Tip Ratio on Hydraulic Performance of an Axial-flow Impeller</i> Lijian Shi Fangping Tang Jiren Zhou Rongsheng Xie Lilong Qi	Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China
OS2-4	<i>Preparation of Photoluminescent Microporous Hybrid Films by Breath Figure Method</i> Haiyan Chen Ting Zhu Wei-chao Xu Ming Zhang	Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China
OS2-5	<i>Quantified Characterization of Phase Structure in SBS Modified Asphalt Based on Microscopic Morphological Parameters</i> Aihong Kang Keke Lou Changjiang Kou Yingqian Wang Zhengguang Wu	Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China
OS2-6	<i>Preparation of Complex of Polyaniline and Acrylic Ester Grafting Epoxy for Anticorrosion and Intrinsically Antistatic Coatings</i> Hongsheng Wang Aiping Zhu Zhengxi Zhu	Yangzhou University, China Yangzhou University, China Yangzhou University, China

GS5 Room B Chair	<i>Information Technology 2</i>	March 29 14:30-16:30
	Shota Nakashima, Yamaguchi University, Japan	
GS5-1	<i>Novel Delay-dependent Robust Stability Criteria of Delay Hopfield Neural Networks with Time-varying</i> Fang Liu Min Wu Yong Li Yong He Ryuichi Yokoyama	Central South University, China China University of Geosciences, China Hunan University, China China University of Geosciences, China Waseda University, Japan
GS5-2	<i>Improved Detection Performance of Energy Detector by Optimization of Threshold Using BPSO Algorithm for Cognitive Radio Networks</i> Ashish Rauniyar Soo Young Shin	Kumoh National Institute of Technology, South Korea Kumoh National Institute of Technology, South Korea
GS5-3	<i>Construction of Multi Viewpoints Database by GA for AR</i> Nozomi Matsuda Kousuke Katada Shenjing Chen Lifeng Zhang	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS5-4	<i>Parameter Estimation of the Burr Type XII Distribution with a Progressively Interval-Censored Scheme Using Genetic Algorithm</i> Tzong-Ru Tsai Jyun-You Jiang Yuhlong Lio Nan Jiang Ya-Yen Fan	Tamkang University, Taiwan Southwestern University of Finance and Economics, China University of South Dakota, USA University of South Dakota, USA Tamkang University, Taiwan
GS5-5	<i>Two-Layered Hierarchical Spectrum Sharing in Cooperative Cognitive Radio Networks: A Stable Matching with Peer Effects Approach</i> Ting-Chen Chen Min-Kuan Chang Feng-Tsun Chien Yu-Wei Chan	National Chung Hsing University, Taiwan National Chung Hsing University, Taiwan National Chung Hsing University, Taiwan Chung Chou University of Science and Technology, Taiwan

GS6 Room C Chair		Electrical Technology 2	March 29 14:30-16:30
Chair		Kazutaka Hongo, Kitakyushu National College of Technology, Japan	
GS6-1	<i>A Single-Input Dual-Output Step-Up/Step-Down DC-DC Converter Designed by Switched Capacitor Techniques</i> Kei Eguchi Kanji Abe Shinya Terada Ichirou Oota		Fukuoka Institute of Technology, Japan Fukuoka Institute of Technology, Japan Kumamoto National College of Technology, Japan Kumamoto National College of Technology, Japan
GS6-2	<i>Remote Monitoring of Lead-Acid Battery for Electric Forklift Based on WLAN</i> Oka Danil Saputra Seog Chae Young Hyung Kim Soo Young Shin		Kumoh National Institute of Technology, South Korea Kumoh National Institute of Technology, South Korea Kumoh National Institute of Technology, South Korea Kumoh National Institute of Technology, South Korea
GS6-3	<i>Design of Fractional Conversion Ratio Switched Capacitor DC-DC Converters by Using Loop-Connected</i> Krit Smerpitak Sawai Pongswatd Teerawat Thepmanee Kei Eguchi		King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand Fukuoka Institute of Technology, Japan
GS6-4	<i>Remote Controlled Power Strip to Make Standby Power Consumption Zero</i> Daichi Koide Mayu Yamanaka Daisuke Tanaka Takuya Itahashi Akira Yamawaki		Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Tokyo Electron Kyushu Limited, Japan Kyushu Institute of Technology, Japan

GS7 Room D Chair		Sensing System	March 29 14:30-16:30
Chair		Satoshi Tsuji, Fukuoka University, Japan	
GS7-1	<i>Simulation of Touch Sensor Switch Control Circuit</i> Mingyu Fan Daisuke Tanaka Akira Yamawaki Seiichi Serikawa		Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS7-2	<i>3D Position Detection with a PSD Using Frequency Modulated Light Markers</i> Kosuke Onishi Daisuke Tanaka Yuki Misaki Shiyuan Yang		Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS7-3	<i>Remarks on Parameter Estimation for Computational Model of Plasma-Organic-Polymer-Film-Coated QCR Sensor</i> Kazuhiko Takahashi Ryosuke Kita Iwao Sugimoto		Doshisha University, Japan Doshisha University, Japan Tokyo University of Technology, Japan
GS7-4	<i>Study on Optical Fiber Sensing for Detecting Liquid Penetration into Anti-corrosive Resins</i> Yui Hashimoto Yusuke Hioka Masatoshi Kubouchi		Tokyo Institute of Technology, Japan University of Auckland, New Zealand Tokyo Institute of Technology, Japan
GS7-5	<i>Fabrication and Testing of a Low-cost Foot Pressure Sensing System</i> Jasim Ahmed Ali AL-Baghdadi Albert K. Chong Peter D. Milburn		Foundation of Technical Education, Iraq University of Southern Queensland, Australia Griffith University, Australia

GS8 Room E Chair	Algorithm Hideaki Orii, Fukuoka University, Japan	March 29 14:30-16:30
GS8-1	<i>Discretization Based on Chi2 Algorithm and Visualize Technique for Association Rule Mining</i> Nuntawat Kaoungku Tippaya Thinsungnoen Pongsakorn Durongdumrongchai Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS8-2	<i>The Performance Characterization of Discrete Kalman Filter under the First Order Autoregressive Demands</i> Karin Kandananond	Valaya Alongkorn Rajabhat University, Thailand
GS8-3	<i>An Ultra-Wideband (UWB) Bandpass Filter with Multiple-Notched Band using Embedded Fold-Slot Structure</i> Mongkol Meeloon	Department of Special Investigation, Thailand
GS8-4	<i>Single Versus Multiple Measures for Fuzzy Association Rule Mining</i> Keerachart Suksut Phaichayon Kongchai Sak Phoemhansa Rattaphong Sutamma Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS8-5	<i>An Empirical Study of Distance Metrics for k-Nearest Neighbor Algorithm</i> Kittipong Chomboon Pasapichi Chujai Pongsakorn Teerarassamsee Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS8-6	<i>Query Answering Engine for the Next Generation Database Systems</i> Nittaya Kerdprasop Kittisak Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand

GS9 Room A Chair	Measurement System Hitoshi Wakizako, Kyushu Institute of Technology, Japan	March 30 9:30-11:10
GS9-1	<i>Surface Roughness Measurement Using Terahertz Waves</i> Tetsuo Fukuchi Norikazu Fuse Maya Mizuno Kaori Fukunaga	Central Research Institute of Electric Power Industry, Japan Central Research Institute of Electric Power Industry, Japan National Institute of Information and Communications Technology, Japan National Institute of Information and Communications Technology, Japan
GS9-2	<i>A Simple Automated Void Defect Detection for Poor Contrast X-ray Images of BGA</i> Somchai Nuanprasert Sueki Baba Takashi Suzuki	Osaka University, Japan BEAMSENSE Co.Ltd., Japan Osaka University, Japan
GS9-3	<i>Interactive Three-Dimensional Model Reconstruction of Ultrasonography</i> Kritpanu Sopabutr Paramate Horkaew Duangrat Gansawat	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand National Electronics and Computer Center, Thailand
GS9-4	<i>Development of Technology for Generating Stimulus Temperature Sensation with Skin Temperature Measurement Function</i> Koshiro Honda Yoshihumi Oyama Masanobu Nagata Miki Oogushi Mika Hagino	Kumamoto National College of Technology, Japan Kumamoto National College of Technology, Japan Kumamoto National College of Technology, Japan Kumamoto University Hospital, Japan Kumamoto University Hospital, Japan
GS9-5	<i>A Fast and Scalable Multi-Pattern Matching Algorithm for Intrusion Detection Systems</i> Chun-Liang Lee Chung-Yuan Huang Kai-Ping Lu Jhao-Han Chen	Chang Gung University, Taiwan Chang Gung University, Taiwan Chang Gung University, Taiwan Chang Gung University, Taiwan

GS10 Room B Chair	Information Technology 3	March 30 9:30-11:10
	Shenglin Mu, Hiroshima National College of Maritime Technology, Japan	
GS10-1	<i>System Integration: Case Study of an Airport Information System</i> Sabah Al-Fedaghi Ahmed Haider	Kuwait University, Kuwait Kuwait Airport, Kuwait
GS10-2	<i>Comparison of Fiber-Optic CDMA Systems Using Different Modulation Schemes</i> Pei-Cheng Chen Bo-Yi Lu Cheng-Yuan Chang	National United University, Taiwan National United University, Taiwan National United University, Taiwan
GS10-3	<i>Self-Reputation Awareness Agents in Spatial IPD Game</i> Chung-Yuan Huang Chun-Liang Lee	Chang Gung University, Taiwan Chang Gung University, Taiwan
GS10-4	<i>Improving Optical-Wireless CDMA System Performance in Industrial Environment with Timing Jitters</i> Yen-Ting Lin Guu-Chang Yang Cheng-Yuan Chang Min-Kuan Chang Wing C. Kwong	National Chung Hsing University, Taiwan National Chung Hsing University, Taiwan National United University, Taiwan National Chung Hsing University, Taiwan Hofstra University, U.S.A.
GS10-5	<i>The System Evaluation Model of Mobile Navigation Devices (MPD) Using Integrated DEMATEL Approach</i> Chia-Li Lin Ya-Wen Yu Gwo-Hshiung Tzeng	Shin Chien University, Taiwan Asia University, Taiwan National Taipei University, Taiwan

EX Room C	Technical Expertise	March 30 9:30-11:10
EX-1	<i>Care System Using Obrid-sensor without Invasion of Privacy</i> Shota Nakashima Shingo Aramaki Shenglin Mu Kanya Tanaka	Yamaguchi University, Japan Yamaguchi University, Japan Hiroshima National College of Maritime Technology, Japan Yamaguchi University, Japan
EX-2	<i>Development of the Agricultural Robot for Automatically Harvesting a Tomato</i> Tsuyoshi Mori Keiichi Yoshino	Kitakyushu National College of Technology, Japan Kitakyushu National College of Technology, Japan
EX-3	<i>Development of Automatic Fire Extinguish System for Residential Use</i> Hayato Takahashi Masahiko Hanada Hiromichi Hanada Kanya Mizuguchi Akinori Fujimoto Seiichi Serikawa Yuhki Kitazono	Kitakyushu National College of Technology, Japan Hanada Setsubi, Japan Hanada Setsubi, Japan Hanada Setsubi, Japan Fukuoka City Council, Japan Kyushu Institute of Technology, Japan Kitakyushu National College of Technology, Japan

PS Room C	Poster Session	March 30 9:30-11:10
PS-1	<i>Multi-walled Carbon Nanotube Filled Polypropylene Nanocomposites: Electrical, Mechanical, Rheological, Thermal and Morphological Inves</i> Nawadon Petchwattana Sirijutaratana Covavisaruch Katabongkot Phetsang	Srinakharinwirot University, Thailand Chulalongkorn University, Thailand Chulalongkorn University, Thailand
PS-2	<i>Analysis and Implementation of a One-Ground-Diode Three-Switch Active-Clamp Forward Converter</i> Sung-Pei Yang Shin-Ju Chen Chao-Ming Huang Chieh-Lung Shih	Kun Shan University, Taiwan Kun Shan University, Taiwan Kun Shan University, Taiwan Kun Shan University, Taiwan
PS-3	<i>Zero-Voltage-Switching Two-Switch Forward Converter with Asymmetric Two Transformers</i> Shin-Ju Chen Sung-Pei Yang Chao-Ming Huang Guan-Hong Liou	Kun Shan University, Taiwan Kun Shan University, Taiwan Kun Shan University, Taiwan Kun Shan University, Taiwan
PS-4	<i>Warning System for Abnormal Movement of Driver's Head</i> Jui-Cheng Yen Jia-Da Wang Chong-Wei Li	National United University, Taiwan National United University, Taiwan National United University, Taiwan
PS-5	<i>Evolving Radial Basis Function Neural Networks for One-Day-Ahead Hourly Forecasting of PV Power Generation</i> Chao-Ming Huang Yann-Chang Huang Kun-Yuan Huang	Kun Shan University, Taiwan Cheng Shiu University, Taiwan Cheng Shiu University, Taiwan

PS-6	<i>Fractional Lower-order Statistics for Yangzhou Dialectal Speech Recognition</i> Huimin Lu Yujie Li Shiyuan Yang Xuelong Hu Seiichi Serikawa	Japan Society for the Promotion of Science, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Yangzhou University, China Kyushu Institute of Technology, Japan
PS-7	<i>A Method for 3D Environment Model Construction Using the AR Marker</i> Takaaki Akimoto Reo Hayakawa	Kitakyushu National College of Technology, Japan Wakayama University, Japan
PS-8	<i>Development of a Proximity and Tactile Sensor Array Using Self-Capacitance Measurement for Robot Hand</i> Satoshi Tsuji Teruhiko Kohama	Fukuoka University, Japan Fukuoka University, Japan
PS-9	<i>Analysis of Thermo-electric Field in Steel Strip with Multiple Cracks</i> Thomas Jin-Chee Liu Ji-Fu Tseng Po-Heng Chen	Ming Chi University of Technology, Taiwan Ming Chi University of Technology, Taiwan Ming Chi University of Technology, Taiwan
PS-10	<i>Numerical Simulation of Internal Flow in "S" Shaped Outlet Conduit</i> Rongsheng Xie Fangping Tang Jiren Zhou Chao Liu Lijian Shi	Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China
PS-11	<i>A Novel Model of Power Consumption Shifting</i> Heng Song Junwu Zhu Yi Jiang Bin Li	Yangzhou University, China Yangzhou University, China Yangzhou University, China Yangzhou University, China
PS-12	<i>Performance Evaluation of Developed Actuator in Measuring Surface Parameters</i> Md Hazrat Ali Akio Katsuki Anatoli Vakhguel't	Nazarbayev University, Kazakhstan Kyushu University, Japan Nazarbayev University, Kazakhstan
PS-13	<i>Skin Photoage Chemoprotection Effect of Moutan Cortex through Regulation of Antimelagenogenic Pathway</i> Leong-Perng Chan Ya-Ping Tseng Tzung-Han Chou Hsiou-Yu Ding Da-Long Cheng Wang Yaying Guey-Horng Wang Chia-Hua Liang	Kaohsiung Medical University, Taiwan National Cheng Kung University, Taiwan National Yunlin University of Science and Technology, Taiwan Chia Nan University of Pharmacy and Science, Taiwan Shu-Te University, Taiwan Xiamen Medical College, China Xiamen Medical College, China Chia Nan University of Pharmacy and Science, Taiwan
PS-14	<i>Ultraviolet Sensing System Using ZnO Based Surface Acoustic Wave Oscillator</i> Da-Long Cheng Kuo-Sheng Kao Ching-Han Lo Chia-Hua Liang Leong-Perng Chan Chen-Wan Tsung Yen-Yi Li	Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Chia Nan University of Pharmacy and Science, Taiwan Kaohsiung Medical University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan
PS-15	<i>The Influence of Specific Surface Area on the Capacitance of the Carbon Electrodes Supercapacitor</i> Chih-Ming Wang Chih-Yu Wen Ying-Chung Chen Jui-Yang Chang Chia-Wei Ho Kuo-Sheng Kao Wei-Che Shih Chun-Ming Chiu Yu-An Shen	Cheng Shiu University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan Shu-Te University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan
PS-16	<i>The Bragg Reflector Layer of Low Surface Roughness Based on Solidly Mounted Resonators</i> Wei-Che Shih Ying-Chung Chen Wei-Tsai Chang Chien-Chuan Cheng Kuo-Sheng Kao Kuo-Hwa Cheng Chih-Ming Wang Chih-Yu Wen Jui-Yang Chang Po-Wei Ting	National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Cheng-Shiu University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan National Sun Yat-Sen University, Taiwan

GS11 Room A Chair	Learning System	March 30 12:30-14:30
	Akira Yamawaki, Kyushu Institute of Technology, Japan	
GS11-1	Ensemble Learning For Imbalanced Data Classification Problem Pasapitch Chujai Kittipong Chomboon Pongsakorn Teerarassamee Nittaya Kerdprasop Kittisak Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS11-2	Analyzing Transitions of Motivation and Learning Strategy with Ward Hierarchical Clustering Phuong Thi Dong Dinh Hiromitsu Shimakawa	Ritsumeikan University, Japan Ritsumeikan University, Japan
GS11-3	The Combination of Diffusion Model and Learning Effect Model to Evaluate the Policy Impact of Cancer Control Act Fu-Chiang Yang Yi-Tui Chen	Delin Institute of Technology, Taiwan National Taipei University of Nursing and Health Sciences, Taiwan
GS11-4	Simple Incremental GMM Modeling using Multidimensional Piecewise Linear Segmentation for Learning from Demonstration Yasser Mohammad Toyoaki Nishida	Assiut University, Egypt Kyoto University, Japan
GS11-5	Learning-based Hand Gesture Sensing and Controlling Techniques for Automotive Electronics Shang-Yi Cheng Yu-An Wei Min-Cheng Yen Szu-Hao Huang	National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan
GS11-6	A Knowledge-Oriented Framework for the New Age of Training and Learning Systems Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand

GS12 Room B Chair	Industrial Application Technology I	March 30 12:30-14:30
	Huimin Lu, Japan Society for the Promotion of Science, Japan	
GS12-1	Applying Substance-Field Model for Packaging Quality Improvement Nikalus Shu Luing Swee Guat Guan Toh Mum Wai Yip Chee Sheng Keong See Chew Tai	Tunku Abdul Rahman University College, Malaysia Tunku Abdul Rahman University College, Malaysia Tunku Abdul Rahman University College, Malaysia Tunku Abdul Rahman University College, Malaysia Tunku Abdul Rahman University College, Malaysia
GS12-2	Low Cost Touch Button of Tablet for Literacy in Developing Countries Yujie Li Akira Yamawaki Seiichi Serikawa	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
GS12-3	Strength of Brazed Joint and Joint Thickness for Cemented Carbide / Silver Brazing Filler Metal Kyogo Watabe Kazuya Mori Richard Chukwuma Meribe Yuki Fujishita Koji Kirihara Kazufumi Sakata	Kumamoto University, Japan Kumamoto University, Japan Kumamoto University, Japan Nakayama Seimitsu Co., Ltd., Japan Nakayama Seimitsu Co., Ltd., Japan Nakayama Seimitsu Co., Ltd., Japan
GS12-4	Ultrasonic Testing of Engineering Plastics Using Aluminum Powder Coupling Kazuya Mori Teruyuki Mori Kenji Hashimura Kazuhisa Era Kei Yamashita	Kumamoto University, Japan Ryoyu System Engineering Co., Ltd., Japan Kumamoto University, Japan Kumamoto University, Japan Bridgestone Corporation, Japan
GS12-5	Thermal Behavior Investigation of Cascode GaN HEMTs Hsin-Ping Chou Stone Cheng Chia-Hsiang Cheng Chia-Wei Chuang	National Chiao-Tung University, Taiwan National Chiao-Tung University, Taiwan National Chiao-Tung University, Taiwan National Chiao-Tung University, Taiwan
GS12-6	Case Study New design 3 Blades Type on 35 Developed Area and Testing cavitation of Tailing Thai Boat Jaruphant Noosomton Jarruwat Charoensuk	King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand

GS13 Room C Chair		Power System	March 30 12:30-14:30
Chair		Akihiro Imakiire, Kyushu Institute of Technology, Japan	
GS13-1	<i>Pursuit for Simple Power Conditioner and System Construction of Photovoltaic Power Generation as Veranda Solar</i>	Keiju Matsui Eiji Oishi Mikio Yasubayashi Masayoshi Umeno Hideo Uchida Yasutaka Kawata Masaru Hasegawa	Minna-denryoku, Japan Minna-denryoku, Japan Chubu University, Japan Chubu University, Japan Chubu University, Japan Chubu University, Japan Chubu University, Japan
GS13-2	<i>Novel Voltage Equalizers for Secondary Batteries including EDLCs using CW circuit</i>	Mikio Yasubayashi Keiju Matsui Eiji Oishi Masayoshi Umeno Hideo Uchida Yasutaka Kawata Masaru Hasegawa	Chubu University, Japan Minna-denryoku, Japan Minna-denryoku, Japan Chubu University, Japan Chubu University, Japan Chubu University, Japan Chubu University, Japan
GS13-3	<i>Simulation of Wave Generation System with Linear Generator</i>	Jun-Hyuk Choi Joon Sung Park Gyung-Sun Ham Jong-Su Choi	Korea Electronics Technology Institute, Korea Korea Electronics Technology Institute, Korea Korea Electronics Technology Institute, Korea Korea Research Institute of Ship & Ocean Engineering, Korea
GS13-4	<i>A Hybrid Simulation Model for ICT-based Wide Area Damping Control of Power System</i>	Xingyu Shi Zhisheng Xu Yong Li Yijia Cao Chen Zhang Min Wen	Human University, China State Power Economic Research Institute of Human Province, China Human University, China Human University, China Shanghai Data Converging Co., Ltd, China State Power Economic Research Institute of Human Province, China
GS13-5	<i>GaN-HEMTs Cascode Switch: Fabrication and Demonstration on Power Conditioning Applications</i>	Stone Cheng Po-Chien Chou	National Chiao-Tung University, Taiwan National Chiao-Tung University, Taiwan
GS13-6	<i>The Empowered Policy and Actions on Kaohsiung City's Skyline Transformation by Photovoltaic Roofs</i>	Yenyi Li Da-Long Cheng Kuo-Sheng Kao Chin-Ming Huang	Shu-Te University, Taiwan Shu-Te University, Taiwan Shu-Te University, Taiwan Kaohsiung City Government, Taiwan

GS14 Room A Chair		Image Processing	March 30 14:50-16:30
Chair		Joo Kooi Tan, Kyushu Institute of Technology, Japan	
GS14-1	<i>A New Efficient Method to Improve Handwritten Signature Recognition</i>	Anusara Hirunyanakul Kedkarn Chaiyakhan Ratiporn Chanklan Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS14-2	<i>Fingerprint Recognition with Edge Detection and Dimensionality Reduction Techniques</i>	Ratiporn Chanklan Kedkarn Chaiyakhan Anusara Hirunyanakul Kittisak Kerdprasop Nittaya Kerdprasop	Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand Suranaree University of Technology, Thailand
GS14-3	<i>Automatic Classification System of Electric Parts Focused on Periodicity of Leads</i>	Shuichiro Kito Koosuke Hattori Ryo Taguchi Taizo Umezaki	Nagoya Institute of Technology, Japan Chubu University, Japan Nagoya Institute of Technology, Japan Nagoya Institute of Technology, Japan
GS14-4	<i>Fast Image Alignment for Inspection of FCB Bump Coin System</i>	Sungho Suh Hansang Cho	Samsung Electro-Mechanics, Korea Samsung Electro-Mechanics, Korea
GS14-5	<i>Intelligent Stereo Image Processing in Mobile System</i>	Tien-Yu Ho Szu-Hao Huang Tzu-Ting Shih Gin-Yen Yang Ching-Wei Tseng	National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan National Tsing Hua University, Taiwan

GS15 Room B Chair	Industrial Application Technology 2	March 30 14:50-16:30
	Mitsunori Mizumachi, Kyushu Institute of Technology, Japan	
GS15-1	<i>Mathematical Models and the Noise -Vibration of the Gearboxes</i> Hung-Phi Cao	Vinh Long University of Technology Education, Vietnam
GS15-2	<i>A Single Deteriorating System's Replacement Model with Inspections</i> Shey-Huei Sheu Hsin-Nan Tsai Fu-Kwun Wang Zhe George Zhang	Providence University, Taiwan Providence University, Taiwan Western Washington University, U.S.A. Western Washington University, U.S.A.
GS15-3	<i>Unstructured Zero-Order Energy FEM: a potential NVH tool</i> Hongwei Zhou Haibo Chen Yongyan Wang	University of Science and Technology of China, China University of Science and Technology of China, China University of Science and Technology of China, China
GS15-4	<i>PDSS: The Decision Support System of Diabetic Patient for Public Health</i> Benjapak Jongmuenwai Kailas Bumrungrat Papon Kaewhin	Rajabath Nakhonratchasima University, Thailand Rajabath Nakhonratchasima University, Thailand Rajabath Nakhonratchasima University, Thailand
GS15-5	<i>Probabilistic Assessments of Safety Instrumented Function by Considering the Justification of Cost-benefit Using ALARP Evaluation Method</i> Amornsak Potiteerabuit Teerawat Thepmanee	King Mongkut's Institute of Technology Ladkrabang, Thailand King Mongkut's Institute of Technology Ladkrabang, Thailand

OS3 Room C Chair	Intelligent Image Processing	March 30 14:50-15:50
	Shota Nakashima, Yamaguchi University, Japan	
OS3-1	<i>Image Contrast Enhancement for Deep-sea Observation Systems</i> Huimin Lu Yujie Li Jianru Li Xin Li Yohei Kashio Seiichi Serikawa	Japan Society for the Promotion of Science, Japan Kyushu Institute of Technology, Japan Tongji University, China Shanghai Jiaotong University, China Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
OS3-2	<i>Comparative Evaluation between Fixed and Floating Point Hardware Implementation of Image Conversion on High-level Synthesis</i> Miyu Fujita Kazunari Yosikawa Naohiro Iwanaga Akira Yamawaki	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan
OS3-3	<i>Development of Fixed-point Canny Edge Filter Operations for High-level Synthesis</i> Kazunari Yoshikawa Naohiro Iwanaga Tatsuya Hamachi Akira Yamawaki	Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan Kyushu Institute of Technology, Japan

SS Room C Chair	New Perspectives in Management and Training	March 30 15:50-16:30
	Rong Zhang, Nishinippon Institute of Technology, Japan	
SS-1	<i>An Investigation on Customers' Selection on Wealth Management Services: Evidence from Taiwan</i> Hsin-Hue Chang Min-Li Yao	Ming Chuan University, Taiwan Ming Chuan University, Taiwan
SS-2	<i>Moderation- a Strategic Tool for Problem Solving and Continuous Improvemet in Organizations and Teams</i> Ganesan Ramaswamy Roshan Kazi Rabia Farooq Langoo	Allana Institute of Management Sciences, India Allana Institute of Management Sciences, India Allana Institute of Management Sciences, India