

TJCAS2019 Conference Program

Last Update: Aug 16, 16:00JST

August 20th (Day 2)	Morning	Plenary Talks		
	13:40 ~ 15:10	1A Bio-Medical Applications	1B Oscillators / Switching Converters	1C Circuit Theory
	15:30 ~ 17:00	2S Special Session I	2B Power Circuit	2C Amplifiers / Data Transmission Circuits
	Evening	Banquet		
August 21th (Day 3)	8:50 ~ 10:20	3A Antenna / RF / Analog Circuits	3B ADC / Testing	3C Neural Networks
	10:40 ~ 12:10	4S Special Session II	4B DAC / Filter / Design & Manufacturing Methods	4C Measurement / Image Processing

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1A (Bio-Medical Applications)

Session Co-Chairs: Toshio Iino (Industrial Property Cooperation Center), Hitoshi Aoki (Teikyo Heisei Univ.), You Yin (Gunma Univ.)

*	1A-01	Shunya Murakami, Taiki Nakanishi, Atsuki Kobayashi, Md. Zahidul Islam (Nagoya Univ.), Kiichi Niitsu (Nagoya Univ. & PRESTO/JST)	Design of Inductive-Coupling-Based CMOS Biosensor Focusing Dielectric Loss of β -Dispersion for Detecting Exosomes
*	1A-02	Shiyu Wang, Md. Zakir Hossain, Takaaki Suzuki, Kazuo Shinozuka, Natsuhiko Shimizu, Shunya Kitada, Ryo Ichige, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Graphene Biosensor for Protein Adsorption
	1A-03	Masakazu Nakanishi (National Inst. of Advanced Industrial Sci. & Tech.)	Design of Voltage Detector using rf-SQUID
*	1A-04	Taiki Nakanishi, Syunya Murakami, Atsuki Kobayashi, Md. Zahidul Islam (Nagoya Univ.), Kiichi Niitsu (Nagoya Univ., JST/PRESTO)	A 40-GHz Fully Integrated On-Chip-VNA-based Circulating Tumor Cells Analyzer in 65-nm CMOS Technology
*	1A-05	Chung-Ming Yu, Ming-Ke Tsai, Yi Feng, and Chia-Ling Wei (National Cheng Kung Univ.)	CMOS/MEMS Respiration Detection Monolithic Chip with Digital Output
	1A-06	Shin-Chi Lai, Yen-Ching Chang, Zhe-Xuan Xie (Nanhua Univ.), Yu-Syuan Jhang (National Yunlin University of Science and Technology)	ECG Acquisition System Design with Lossless Data Compression and Baseline Wandering Cancellation
*	1A-07	Wan-Yun Chang (National Cheng Kung Univ.), Ya-Yun Hou (National Chiao Tung Univ.), Lih-Yih Chiou (National Cheng Kung Univ.)	A Smart Glasses for Caring Children's Eyes
	1A-08	Shuenn-Yuh Lee, Yi-Wen Hung, Po-Han Su, Yao-Tse Chang, (National Cheng-Kung Univ.)	Low-cost Wearable Biological Signal Monitoring Device for Smart Clothing
*	1A-09	Michiko Tsuda, Manabu Ishihara (NIT(KOSEN), Oyama College.)	Development of Hearing Aid System Using Network
*	1A-10	Toshiya Matsunashi (Tokushima Univ.), Tam Q Nguyen, Donald Y. C. Lie (Texas Tech Univ.)	Classification of Fallers versus Non-Fallers from Gait Analysis of Older Adults Using Long Short-Term Memory (LSTM)

* : Eligibility for student presentation award

1B (Oscillators / Switching Converters)

Session Co-Chairs: Chia-Ling Wei (NCKU), Akihiro Takita (Gunma Univ.)

*	1B-01	Jorge Canada, Nobuhiko Nakano (Keio Univ.)	An On-Chip Sub-pW Hz-Range Ring Oscillator
	1B-02	Yasuaki Watanabe (Tokyo Metropolitan Univ.)	Phase-noise Characteristics of Butler Oscillator Circuits Having Quartz Crystal Resonators on Base Terminals
*	1B-03	Tasuku Kakisaka, Jun Imaoka, Masayoshi Yamamoto (Nagoya Univ.)	A Method to Suppress the Voltage Imbalance Between Series-Connected MOSFETs in DC-DC Converter by Feedback Control

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*	1B-04	Jing Li, Yifei Sun, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Automatic Adjustment of Current Imbalance due to Component Variations in Multi-Phase Ripple Controlled DC-DC Converter
*	1B-05	Wen-Zhong Li, Le-Ren Chang-Chien (National Cheng Kung Univ.)	Modified Current-Mode Buck Converter with Digital Constant-Frequency On-Time Control
*	1B-06	Minh Tri Tran, Yifei Sun, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Voltage Overshoot Reduction with Parallel RLC Network for Inductor Type Buck Converter in Mobile Applications
*	1B-07	Shogo Katayama, Jing Li, Yifei Sun, Tran Minh Tri, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Automatic Current Balancing Circuit for Multi-Phase Constant On-Time Hysteresis Control Converter
	1B-08	Tsornng-Juu Liang, Li-Jie Huang (Green Energy Electronics Research Center)	Single-Stage Flyback AC-DC Converter with Primary-Side Controlled DCM/CCM Operations
*	1B-09	Yifei Sun, Minhtri Tran, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Adjustable Conversion Voltage Ratio Notch Frequency Generation for Noise Spectrum in Pulse Coding Control Switching Converter
*	1B-10	Chenhao Zhang, Yi-Fei Sun, Tran Minh Tri, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Current Balancing Circuit for Multiphase Half/Full Wave Resonant Converter

* : Eligibility for student presentation award

1C (Circuit Theory)

Session Co-Chairs: Seiichi Banba (Toyohashi Univ. Tech.), Yasuhiro Takashima (Univ. of Kitakyushu)

*	1C-01	Katsuya Nakabai, Yoshifumi Nishio, Yoko Uwate (Tokushima Univ.)	Switching Phenomena of Synchronization State in Coupled-Chaotic Circuits Network
*	1C-02	Takumi Nara, Yoko Uwate, Yoshifumi Nishio (Tokushima Univ.)	Clustering Phenomena in the Network of Coupled Chaotic Circuits
	1C-03	Kazuyoshi Kubo, Mitsuomi Ideo, Masato Kasahara (NIT (KOSEN), Oyama College)	A Case Study of Engineering Education Through Renewing the Course Experiment in the New IEEE Department at NIT(KOSEN) Oyama College.
*	1C-04	Tatsuya Fujii, Kazuhiro Shouno (Univ. of Tsukuba)	Synthesis of an Even Order Complex Transfer Function with High Image Rejection Ratio Based on Frequency Transformation
*	1C-05	Ken Kamiyotsumoto, Yoko Uwate (Tokushima Univ.), Thomas Ott (Zurich University of Applied Sciences), Yoshifumi Nishio (Tokushima Univ.)	Artificial Bee Colony Algorithm with High Robustness for Time-Varying Solutions
*	1C-06	Takashi Hosono, Nene Kushita, Yukiko Shibasaki, Takashi Ida, Mayu Hirano, Nobukazu Tsukiji, Anna Kuwana, Haruo Kobayashi (Gunma Univ.) Yoichi Moroshima Hiromichi Harakawa, Takeshi Oikawa, (ASO)	Improved Nagata Current Mirror Insensitive to Temperature as well as Supply Voltage
*	1C-07	Yuya Ito, Norio Tuda, Keishiro Goshima (Aichi Inst. of Tech.)	A Study on Low Supply Voltage of Double-tail Type Comparator.

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*	1C-08	Yuji Toda, Kenshu Seto (Tokyo City Univ.)	Simultaneous Application of Memory Partitioning and Scalar Replacement
*	1C-09	Gen Yagara, Hitoshi Aoki (Teikyo Heisei Univ.), Hiroyuki Sakairi, Naotaka Kuroda, Atsushi Yamaguchi (ROHM Co., Ltd)	Gate Leakage Current Model of AlGaN/GaN Ridge HEMTs

* : Eligibility for student presentation award

2S (Special Session I)

Session Co-Chairs: Toshiki Takahashi (Gunma Univ.), Masakazu Nakanishi (AIST)

*	2S-01	Sakiko Teramachi, Tetuya Kawamura (Ochanomizu Univ.)	Numerical Simulation of Sound Propagation from Various Wind Turbines
*	2S-02	Miho Araki, Tetuya Kawamura (Ochanomizu Univ.)	Three-dimensional Numerical Simulation on Interaction of Two Vertical Axis Turbines
*	2S-03	Takuto Sugawara, Satoko Komurasaki (Nihon Univ.)	Topography Formed by Development of a Stream Passage
*	2S-04	Hiroyuki Sone, Satoko Komurasaki (Nihon Univ.)	Simulation of Lava Flows with Various Viscosities
*	2S-05	Akiko Minakawa, Tetuya Kawamura (Ochanomizu Univ.)	Axisymmetric Simulation of Bioconvection using density instability model
	2S-06	Masato Hirota, Seiichiro Izawa, Yu Fukunishi (Tohoku Univ.)	SPH Simulation of a Droplet Levitating over a Moving Wall
*	2S-07	Ikuko Hiraga, Tetuya Kawamura (Ochanomizu Univ.)	CFD Analysis of Dynamics of Rotating Device Having Horizontal Axis for Ocean Current Power Generation
*	2S-08	Sae Tsukui, Tetuya Kawamura (Ochanomizu Univ.)	Numerical Simulation of Fire Tornado Caused by Various Heat Sources Using Combined Cartesian and Cylindrical Coordinate System
*	2S-09	Akari Oniiwa, Aya Saito, Tetuya Kawamura (Ochanomizu Univ.)	Analysis of the flow around the Wing-in-Surface Effect Craft
	2S-10	Aya Saito, Tetuya Kawamura (Ochanomizu Univ.)	The Flow Simulation in the Pipe on the Sphere with Expansion and Contraction
*	2S-11	Kazuki Sugiyama, Yoshihiro Kubota, Osamu Mochizuki (Toyo Univ.)	Sound Caused by Vibration of Lips

* : Eligibility for student presentation award

2B (Power Circuits)

Session Co-Chairs: Hirokazu Yoshizawa (Saitama Inst. Tech.), Toru Sai (Tokyo Univ.)

*	2B-01	Yudai Abe, Takashi Ida, Jun-ichi Matsuda, Yukiko Shibasaki, Anna Kuwana, Haruo Kobayashi (Gunma Univ.), Akio Iwabuchi (Sanken Electric Co. Ltd.)	IGBT Gate Driver Circuit with Power Loss Reduction by Current Source Control
*	2B-02	Kosuke Uchiyama, Shota Jodo, Shunya Murakami, Md Zahidul Islam, Atsuki Kobayashi (Nagoya Univ.), Kiichi Niitsu (Nagoya Univ. & JST/PRESTO)	Design of On-Chip Integrated Solar Cells in 65nm CMOS Technology for Solar-Cell-Powered Continuous Glucose Monitoring Systems

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*	2B-03	Anqi Song, Hirokazu Yoshizawa (Saitama Inst. of Tech.), Fumiyasu Utsunomiya, Minoru Sudo (ABLIC Inc.)	A Li-Ion Battery Charger for Solar Battery Cells with Latch-up Immunity
*	2B-04	Shota Jodo, Cong Dang Bui, Kosuke Uchiyama, Md Zahidul Islam, Atsuki Kobayashi, Kiichi Niitsu (Nagoya Univ.)	Design of CMOS GaN Gate Driver for 13.56MHz GaN-Based Power Electronics Application in 180nm High-Voltage CMOS Technology
	2B-05	Shang-Hsien Lin (National Chung Hsing Univ.), Yu-Chan Liang (National Cheng Kung Univ.), Kuang-Hao Lin, Zhe-Wei Zhuang, Hong-Wen Chen (National Formosa Univ.)	Implementation of High-Speed High-Voltage Boost Circuit
*	2B-06	Morichika Sakuma, Toshiki Ohtsu, Minami Sasaki, Shuichiro Yamada, Hao San (Tokyo City Univ.)	Low-Voltage Bootstrapped Switch in SOTB CMOS Technology
*	2B-07	Ryusei Sakai, Shunya Murakami, Taiki Nakanishi, Md Zahidul Islam, Atsuki Kobayashi (Nagoya Univ.), Kiichi Niitsu (Nagoya Univ. & JST/PRESTO)	Design of A CML-Based NMOS-Only Self-Oscillating Voltage Doubler for Enabling Ultra-Low Start-Up Voltage in 65-nm CMOS Technology
*	2B-08	Noriyuki Oiwa, Shogo Katayama, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	High-Efficiency Full-Bridgeless PFC Power Supply Circuit
*	2B-09	Hideo Kikuchi, Ayana Nakajima, Kazuhiro Motegi, Yoichi Shiraishi (Gunma Univ.)	A New Real-time Power Adjusting Method for WPT System
*	2B-10	Takara Ijoro, Hao San, Tsugumichi Shibata (Tokyo City Univ.)	A Control of Magnetic Resonance Wireless Power Transfer Efficiency
*	2B-11	Motoki Ishizaki, Atsushi Kurokawa (Hirosaki Univ.)	Long-Distance Transfer Using Wired-Repeater WPT System
	2B-12	Chen Po-Hung (National Chiao Tung Univ.)	Maximum Power Point Tracking Techniques for Multi-Source Energy Harvesting

* : Eligibility for student presentation award

2C (Amplifiers / Data Transmission Circuits)

Session Co-Chairs: Koichi Ogino (RICOH Electronics), Seiji Mori (Anagix), Mineo Kaneko (JAIST)

*	2C-01	Gaku Ogihara, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Parallel Low-Gain Amplifiers Equivalent to High-Gain Amplifier
*	2C-02	Tamazawa Yuki, Masahiro Sasaki (Shibaura Inst. of Tech.)	Analysis of Fully Differential Op-amp with Sampled Input Signal
*	2C-03	Wang Jianlong, Yuji Gendai, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	An Idea to Obtain the Open Loop Characteristics of Opamp by Closed Loop Result
*	2C-04	Hsin-Yu Tseng, Jia-Yin Chen, and Lih-Yih Chiou (National Cheng Kung Univ.)	Hardware Implementation of AES-GCM
*	2C-05	Ruilin Zhang, Hirofumi Shinohara (Waseda Univ.)	High-Throughput & Power Efficiency 8 Bits Von Neumann Post-Processing with Waiting Strategy for True Random Number Generators

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	2C-06	Sheng-Kai Chang, Shang-De Yang, Kuang-Wei Cheng (National Cheng Kung Univ.)	A Direct FSK/QPSK Modulation Transmitter Employing Dual Injection Locking Techniques
	2C-07	Yosuke Iijima (NIT(KOSEN), Oyama college), Keigo Taya, Yasushi Yuminaka (Gunma Univ.)	Experimental Evaluation of Multiplexing Data Transmission using Wireline Baseband OFDM
*	2C-08	Takahiro Tomihara, Takeshi Kamio, Hisato Fujisaka (Hiroshima City Univ.)	Parameter Optimization of OFDM PLC According to Measured Transmission-Line Characteristics
*	2C-09	Toshiyuki Komi, Shintaro Arai (Okayama Univ. of Science), Tomohiro Yendo (Nagaoka Univ. of Technology)	A Preliminary Study on Spatial Channel Estimation Method for Image Sensor Communication
*	2C-10	Daijiroh Tayama, Yasushi Yuminaka (Gunma Univ.), Yosuke Iijima (NIT(KOSEN), Oyama college)	Function allocation of coding and equalization for high-speed serial links
	2C-11	Kittipong Tripetch (Rajamangala Univ. of Tech. Suvarnabhumi.)	The Novel Frequency Modulator Design and Synthesis based on BJT Transistor

* : Eligibility for student presentation award

3A (Antenna / RF / Analog Circuits)

Session Co-Chairs: Masaru Kokubo (Hitachi Central Research Lab.),

Atsushi Kurokawa (Hirosaki Univ.)

	3A-01	Chuang Ming-Lin (National Penghu Univ. of Sci. & Tech.)	Dual-Band Rectifier with Dual-Band Matching Network
	3A-02	Yin-Tsung Hwang, Ming-Tien Wu, Kang-Ming Wu (National Chung Hsing Univ.)	A Low Complexity 2D DoA Estimation Scheme for L-shaped Antenna Array
	3A-03	Tsubasa Kurokawa, Koji Maeda (Hitachi, Ltd.)	Study on New Radar System Using an Electro-Magnetic Tube
	3A-04	Kittipong Tripetch (Rajamangala Univ. of Tech. Suvarnabhumi)	A Modification of the Costas Loop for AM and FM Demodulator
*	3A-05	Shogo Katayama, Noriyuki Oiwa, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Output Voltage Ripple Reduction for Current-Mode Resonant Converter
*	3A-06	Lei Sha, Anna Kuwana, Haruo Kobayashi (Gunma university)	Reference Voltage Generation Circuit Insensitive to Temperature
*	3A-07	Souma Yamamoto, Isam Ebisawa kuswan, Yudai Abe, Takashi Ida, Yukiko Shibasaki, Anna Kuwana, Haruo Kobayashi (Gunma Univ.) Akira Suzuki, Yukichi Todoroki, Toshihiko Kakigi, Nobuto Ono, Kazuhiro Miura (JEDAT)	Stability Analysis of Temperature-Insensitive MOS Reference Current Source Circuit
*	3A-08	Masahiro Arai, Yuji Sano (Toyo Univ.)	Signal Dynamic Range Expansion of Exponentiation Conversion Circuit Utilizing Subthreshold Operation of MOSFET

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*	3A-09	Masataka Iwai (Ryukoku Univ.)	Reset Control of Combustion Oscillation
*	3A-10	Yuuta Satomi (Hirosaki Univ.), Koutaro Hachiya (Teikyo Heisei Univ.), Atsushi Kurokawa (Hirosaki Univ.)	Thermal Placement on PCB of Components Including Chip Stacking
	3A-11	Yi-Jung Chen (National Chi Nan Univ.), Chia-Yin Liu, Masanori Hariyama (Tohoku Univ.)	Thermal-aware Synthesis of Memory Systems in MPSoCs with 3D-stacked Hybrid Memories

* : Eligibility for student presentation award

3B (ADC / Testing)

Session Co-Chairs: Yuji Gendai (THine Electronics, Inc.), Takanori Komuro (Kanagawa Inst. Tech)

*	3B-01	Yudai Abe, Shogo Katayama, Congbing Li, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	High-Frequency Waveform Acquisition Using RC Polyphase Filter and Multiple Sampling Clocks
*	3B-02	Yu-Sian Lin, Soon-Jyh Chang, Chia-Ling Wei (National Cheng Kung Univ.)	A Noise-Shaping SAR Assisted MASH 2-1 Sigma Delta Modulator
*	3B-03	Minami Sasaki, Toshiki Ohtsu, Shuichiro Yamada, Daigo Kaneko, Hao San (Tokyo City Univ.)	A low-voltage SAR ADC with Dynamic Comparator in 65nm SOTB CMOS
*	3B-04	Daigo Kaneko, Minami Sasaki, Toshiki Ohtsu, Shuichiro Yamada, Hao San (Tokyo City Univ.)	The Design of Asynchronous Logic for SAR ADC with Dynamic Comparator
*	3B-05	Toshiki Ohtsu, Shuichirou Yamada, Minami Sasaki, Morichika Sakuma, Hao San (Tokyo City Univ.)	Non-binary Cyclic-ADC Using Dynamic Amplifier
*	3B-06	Zhang Pengfei, Kosuke Machida, Yuto Sasaki, Yuki Ozawa, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	High Resolution Time-to-Digital Converter Using Integral Architecture and Vernier Oscillators
*	3B-07	Jiang-Lin Wei, Nene Kushita, Takahiro Arai, Lei Sha, Anna Kuwana, Haruo Kobayashi, Takayuki Nakatani, Kazumi Hatayama (Gunma Univ.), Keno Sato, Takashi Ishida, Toshiyuki Okamoto, Tamotsu Ichikawa (ROHM Semiconductor Co., Ltd.)	Algorithm for $\Delta\Sigma$ ADC Linearity Test in Short Time
*	3B-08	Riho Aoki, Shogo Katayama, Yuto Sasaki, Kosuke Machida, Takayuki Nakatani, Jianlong Wang, Anna Kuwana, Kazumi Hatayama, Haruo Kobayashi (Gunma Univ.), Keno Sato, Takashi Ishida, Toshiyuki Okamoto, Tamotsu Ichikawa (ROHM Semiconductor Co., Ltd.)	Accurate and Fast Testing of Operational Amplifier with NULL Method

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*	3B-09	Zhao Yujie Yuanyang Du, Yuki Ozawa, Yuto Sasaki, Anna Kuwana, Haruo Kobayashi, Takayuki Nakatani, Kazumi Hatayama (Gunma Univ.), Keno Sato, Takashi Ishida, Toshiyuki Okamoto, Tamotsu Ichikawa (ROHM Co., Ltd.)	Examination of Input Signal to Reduce ADC Histogram Test Time
	3B-10	Koutaro Hachiya (Teikyo Heisei Univ.), Atshushi Kurokawa (Hiroasaki Univ.)	A Method to Improve Diagnostic Performance of Testing Through Silicon Vias in Power Distribution
*	3B-11	Yukiko Shibasaki, Koji Asami, Anna Kuwana, Kosuke Machida, Yuanyang Du, Akemi Hatta (Gunma Univ.), Kazuyoshi Kubo (NIT(KOSEN), Oyama College), Haruo Kobayashi (Gunma Univ.)	Study on Multi-tone Signals for RF/Analog/Mixed-Signal IC Testing

* : Eligibility for student presentation award

3C (Neural Networks)

Session Co-Chairs: Hosokawa Yasuteru (Shikoku Univ.)

	3C-01	Yasuteru Hosokawa (Shikoku Univ.), Yoshifumi Nishio (Tokushima Univ.)	Modified Cellular Neural Network Applying Bayer Arrangement
*	3C-02	Yuichi Miyata, Yoko Uwate and Yoshifumi Nishio (Tokushima Univ.)	Building Data Sets Using Clustering and Evaluation of Learning Accuracy in Convolutional Neural Networks
	3C-03	Juinn-Dar Huang, Ya-Chu Chang (National Chiao Tung Univ.)	Hardware-Friendly Model Compression Technique for DNNs
*	3C-04	Tomokazu Masubuchi, Norio Tuda, Keishiro Goshima (Aichi Inst. of Tech.)	Processor with Ultra Little Area for Specializes Binarized Convolutional Neural Network using FPGA
*	3C-05	Lin Ye, Masao Yanagisawa, Youhua Shi (Waseda Univ.)	A Zero-Gating Processing Element Design for Low-Power Deep Convolutional Neural Networks
*	3C-06	Hsi-Feng Chen, Chih-Chan Lin, Lih-Yih Chiou (National Cheng Kung University)	Design of a LeNet-5 Accelerator on FPGA
	3C-07	Pin-He Liu, Jhi-Jyun Fu, Chi-Chia Sun (National Formosa University), Afaroj Ahamad (Vel Tech)	Fast Region Estimation Hardware Acceleration Based on Binarized Neural Network on PYNQ FPGA
	3C-08	Shih-Chieh Lin, Min-Chi Lin, Yu-Chung Hsu, Yin-Tsung Hwang, Chih-Peng Fan (National Chung Hsing University)	Pedestrian Direction Detection Using Low Complexity YOLO-Based Deep-Learning Networks
	3C-09	Lai Yeong-Kang, Chu-Ying Ho (National Chung Hsing Univ.)	An Efficient and Parallel Deep Learning Network with Common Layers for Face Detection and Recognition
	3C-10	Chia-Yu Wang, Te-Yun Ma, Robert Chen-Hao Chang (National Chung Hsing Univ.)	Design of a DNN-based Drunk Driving Identification System

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4S (Special Session II)

Session Co-Chairs: Anna Kuwana (Gunma Univ.)

*	4S-01	Ryo Inomata, Nobuyuki Kurita (Gunma Univ.), Wolfgang Gruber (JKU Linz), Takashi Okayasu (CMK Co., Ltd)	Auto-Drawing Program of Flex-PCB Windings
	4S-02	Yohei Takahashi, Nobuyuki Kurita (Gunma Univ.)	Effect of Back Iron Thickness on a Small Hydraulic Generator
	4S-03	Toshiki Takahashi, Kojiro Sekiguchi, Ryo Matsumoto, Takahiro Urano (Gunma Univ.), Makoto Goto (Polytechnic Center Gunma), Tomio Okada (NPO Wireless Brain Network)	Plane-Parallel Hollow Cathode Discharges in the Two Static Magnetic Field Configurations Generated by Permanent Magnets
	4S-04	Toshiki Takahashi (Gunma Univ.), Yuya Fukuda (JAL Information Technology Co., Ltd.), Yusuke Motegi, Masaru Yokota, Yuya Kato (Gunma Univ.), Kevin Memmo (ESIEE Paris), Anna Kuwana (Gunma Univ.)	Improvement of Pollen Removal Efficiency by Cooperative Operation of Circulator and Air Purifier
	4S-05	Goto Makoto (Polytechnic Center Gunma), Takumi Utsugimoto, Keisuke Yoshino, Koki Sato, Kei Kaneko, Ryohei Nozawa, and Jun Fujinoki (Niigata Polytechnic College), Toshiki Takahashi (Gunma Univ.)	Development of Sewage Odor Treatment System Using Ozone
*	4S-06	Yusuke Motegi, Yuya Kato, Masaru Yokota, Toshiki Takahashi (Gunma Univ.)	Measurement of Particle Ability of Tornado-like Air Flow Generated by a Circulator
*	4S-07	Yuya Kato (Gunma Univ.), Kevin Memmo (ESIEE Paris), Yusuke Motegi, Toshiki Takahashi (Gunma Univ.)	Development of Air Purification System by Cooperation of Circulator and Air Purifier Aiming at Pollen Removal Efficiency Improvement
*	4S-08	Takahiro Urano, Toshiki Takahashi (Gunma Univ.)	Wave Propagation Simulation by Applying Wave to Field Reversed Configuration Plasma
*	4S-09	Takahiro Urano, Toshiki Takahashi (Gunma Univ.)	Hybrid Simulation to Evaluate Trajectory Influence on Toroidal rotation of field-reversed configuration plasma
*	4S-10	Masaru Yokota, Yusuke Motegi, Toshiki Takahashi (Gunma Univ.)	Numerical Evaluation for Pollen Removal Efficiency by Air Purifier Installed at House Entrance
*	4S-11	Masaru Yokota (Gunma Univ.), Ryo Kano (Kandenko Co.,Ltd.), Yusuke Motegi, Yuya Kato, Toshiki Takahashi (Gunma Univ.)	Improvement in Pollen Removal Efficiency of Cooperative Air-Purification System by Swinging circulator
*	4S-12	Qigong Teng, Xueyan Bai, Dan Yao, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Examination of Optimum Shape of 3-stage Savonius wind Turbine using CFD Technology

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4B (DAC / Filter / Design & Manufacturing Methods)

Session Co-Chairs: Ke-Horng Chen (NCTU), Masahiro Sasaki (Shibaura Int. Tech.)

*	4B-01	Shuhei Yamamoto, Manato Hirai, Takahiro Arai, Anna Kuwana, Haruo Kobayashi (Gunma Univ.), Kazuyoshi Kubo (NIT(KOSEN), Oyama College)	Proposal of Ternary Resistor Network DACs
*	4B-02	Takaharu Nakao, Kenichi Ohhata (Kagoshima Univ.)	Capacitor Placement Algorithm Considering Systematic Mismatch Due to Erosion for a High-Accuracy Capacitive DAC
*	4B-03	Manato Hirai, Shuhei Yamamoto, Hirotaka Arai, Anna Kuwana (Gunma Univ.), Hiroshi Tanimoto (Kitami Inst. of Tech.), Yuji Gendai, Haruo Kobayashi (Gunma Univ.)	General Configuration of Non-Binary DAC Using Resistor Ladder Network
*	4B-04	Tatsuya Fujii, Kazuhiro Shouno (Univ. of Tsukuba)	A Low Frequency Lowpass Filter Using Higher-order Resistance Multipliers
*	4B-05	Akemi Hatta, Nene Kushita, Minh Tri Tran, Koji Asami, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Relationship between Active Complex Bandpass Filter and Hilbert Filter
*	4B-06	Koji Asami (Advantest Laboratories Ltd.), Nene Kushita, Akemi Hatta, Minh Tri Tran, Yoshiro Tamura, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	I,Q Mismatch Analysis and Evaluation Method of Complex Analog Filter
*	4B-07	Minh Tri Tran, Nene Kushita, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Minimum Gain Ripple Technique for Pass-Band of 4-Stage Passive RC Polyphase Filter in Low-IF Receivers
	4B-08	Chien-Nan Liu (National Chiao Tung Univ.), Hao-Yu Chang, Meng-lin Li, Ji-Xuan Tsai, Si-Yun Hong (National Central Univ.), Hsin-Ju Hsu (National Chiao Tung Univ.), Jing-Yang Jou (National Central Univ.)	A Table Reduction Technique for WDF-Based Analog Circuit Emulation
	4B-09	Seijiro Moriyama (Anagix Corp.), Tadaaki Tsuchiya, Katsuhiko Wakasugi (Logic Research Co.,Ltd.), Michitaka Yoshino, Akira Yasuda (Hosei Univ.)	Analog IP Reuse Support for Minimal EDA
*	4B-10	Shiyu Wang ¹ , Md. Zakir Hossain, Takaaki Suzuki, Kazuo Shinozuka, Natsuhiko Shimizu, Shunya Kitada, Ryo Ichige, Anna Kuwana, Haruo Kobayashi (Gunma Univ.)	Novel Insulator Layer Manufacture Method for Graphene Biosensor
*	4B-11	Tahsin Binte Shameem, Atsushi Takahashi (Tokyo Inst. of Tech.)	An Idea for Lithography Simulation Engine for OPC Algorithms

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4C (Measurement / Image Processing)

Session Co-Chairs: Tamotsu Ichikawa (Rohm Semiconductor), Kazuhito Ito (Saitama Univ.)

*	4C-01	Motoki Awano, Ryo Matsuyama, Tsukasa Kogusuri (NIT(KOSEN), Oyama College), Shuichi Arai (Fujifilm Medical Co.), Kazuyoshi Kubo (NIT(KOSEN), Oyama College)	Measurement and Evaluation of Reverberation Times of Oyama College Lecture Rooms by Impulse Response Method
	4C-02	Kazuyoshi Kubo (NIT (KOSEN) Oyama College)	Discussions on the problem of profoundly mistaken Tendency of the SI Unit Expressions in the Field of Electricity.
	4C-03	Tadashi Ito, Shinichiro Hoshino (Gunma University)	An Experimental System for Shape Measurement using Acceleration, Gyro and Rotation Angle Sensors
*	4C-04	Sung-Yang Liao, Tsung-Han Tsou, Dun-Jie Chen, Ting-Jia Wu, Po-Yun Cheng, Feng-Ming Hsu, Chung-Ho Chen (National Cheng-Kung Univ.)	Indoor Location Service with Bluetooth Mesh Light Control System
*	4C-05	Ryo Matsuyama, Kouta Kashiwagi (NIT (KOSEN), Oyama College), Hiroshi Aoyagi (Utsunomiya Univ.), Shotaro Ono (Yamagata Univ.), Kazuyoshi Kubo (NIT (KOSEN), Oyama College)	A Trial on Estimating the Date of Old Books with Spectrophotometer
*	4C-06	Kouta Kashiwagi, Motoki Awano (NIT(KOSEN), Oyama College), Katsuya Tashiro (Toshiba Elevator and Building Systems Corp.), Kazuyoshi Kubo (NIT(KOSEN), Oyama College)	A Basic Study on the Color Mixing Trace Lines in the L*a*b* Color Space
*	4C-07	Yuto Sasaki, Kosuke Machida, Riho Aoki, Shogo Katayama, Takayuki Nakatani, Jianlong Wang (Gunma Univ.), Keno Sato, Takashi Ishida, Toshiyuki Okamoto, Tamotsu Ichikawa (ROHM Semiconductor), Anna Kuwana, Kazumi Hatayama, Haruo Kobayashi (Gunma Univ.)	Very Low Level DC Voltage Measurement Technique by DC-AC Conversion
*	4C-08	Yun-Ru Chen, Lih-Yih Chiou (National Cheng Kung University)	Profiling YOLO for Hardware Implementation
	4C-09	Tsai Shu-Min, Hao-Chen Chiu, Chun-Yen Chan, Yu-Jen Chen, Shao-Chi Huang (National Penghu Univ. of Sci. and Tech.)	Image Count System for Plankton Algae Application
*	4C-10	Keisuke Komatsubara, Naoto Hoshikawa (NIT (KOSEN), Oyama College), Takashi Nishitsuji (Tokyo Metropolitan Univ.), Tomoyoshi Shimobaba, Tomoyoshi Ito (Chiba Univ.)	Proposal of the Implementation of a Camera-Type Wide-Area Surveillance System that Suppresses the Flow of Irrelevant Private Data

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*	4C-11	Wong Jun Wen, Lin Bo-Wei, Xu Zhan Wei, Hsin-Lin Chiang, Lin Jun-Feng (Nanhua Univ.)	Open Source Facial Recognition Access Control System
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* : Eligibility for student presentation award

Role of Session Chair:

- (1) Management of voting for best student presentation award in the session
- (2) Encouragement of discussion in the session.