

14:00-15:00 Zoom room 1: Technical session A

Session chair: Yoko Uwate

- 1 Akinori Nakayama (Okayama University of Science)
A study of receiving algorithm for Rotary LED Transmitter in Image Sensor Communication
A. Nakayama, S. Arai, Z. Tang, T. Yendo

- 2 Chen-Wei Chang (National Cheng Kung University)
Development of Neural Network Model for Playing Atari Pong Game using Reinforce Learning
Chen-Wei Chang, Yi-Jie Chin, Lih-Yih Chiou

- 3 Shun-Hsiu Hsu (National Cheng Kung University)
Design and Implementation of Lossy Image Compression Hardware Kernel using Self-Organizing Map
Shun-Hsiu Hsu and Lih-Yih Chiou

- 4 Yuki Sekine (Gunma University)
Dual-Output and Four-Output SEPIC Multiplied Boost Converter with Exclusive Control
Yuki Sekine, Shogo Katayama, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi

- 5 Gaku Ogihara (Gunma University)
Proposal for High-Precision Nano-Ampere Current Measurement in ATE
Gaku Ogihara, Takayuki Nakatani, Daisuke Imori, Shogo Katayama, Anna Kuwana, Keno Sato,
Takashi Ishida, Toshiyuki Okamoto, Tamotsu Ichikawa, Yujie Zhao, Jianglin Wei,
Kazumi Hatayama, Haruo Kobayashi

14:00-15:00 Zoom room 2: Technical session B

Session chair: Prof. Chien-Nan (Jimmy) Liu

- 1 Souma Yamamoto (Gunma University)
MOS Reference Current Sources with Self-Bias Configuration and its Startup Circuit
Souma Yamamoto, Takashi Hosono, Takafumi Kamio, Shogo Katayama, Kuswan Isam Ebisawa,
Tianrui Feng, Anna Kuwana, Haruo Kobayashi, Kouji Hirai, Akira Suzuki, Satoshi Yamada, Tomoyuki Kato,
Ritsuko Kitakoga, Takeshi Shimamura, Gopal Adhikari, Nobuto Ono, Kazuhiro Miura

- 2 Guiyi Dong (Gunma University)
Band-select Noise Spread Spectrum Techniques for Pulse Coding Ripple-controlled Hysteretic Converter
Guiyi Dong, Shogo Katayama, Yifei Sun, Yasunori Kobori, Anna Kuwana, Haruo Kobayashi

- 3 Takafumi Kamio (Gunma University)
Design study on MOS Peaking Current Sources Insensitive to Temperature and Supply Voltage
Takafumi Kamio, Takashi Hosono, Souma Yamamoto, Jun-ichi Matsuda, Shogo Katayama, Anna Kuwana,
Akira Suzuki, Satoshi Yamada, Tomoyuki Kato, Nobuto Ono, Kazuhiro Miura, Haruo Kobayashi

- 4 Zhengqiang Tang (Nagoya University)
Sequential Maximum Likelihood Decoding Using Pseudo-captured Image Templates

for Image Sensor Communication
Zhengqiang Tang, Takaya Yamazato, Shintaro Arai

5 Ching-Hwa Cheng (Feng Chia University)
Design and Implementation of Ping-Pong Signal Processing Computing Chip in LiDAR System
Ching-Hwa Cheng, Jia-Yuan Tu, Don-Gey Liu

6 Tsuyoshi Isozaki (Tokushima University)
Performance of Information Transmission Focusing on Synchronization of Oscillators in Complex Networks
Tsuyoshi Isozaki, Yoko Uwate, Yoshifumi Nishio

15:15-16:15 Zoom room 1: Technical session C

Session chair: Prof. Robert Chen-Hao Chang

1 Fumiya Matsui (Toyo University)
Reduction Technics of Power Supply Voltage and Circuit Scale for Exponentiation Conversion CMOS IC
Fumiya Matsui, Naoya Nishiyama, Yuji Sano

2 Naoya Nishiyama (Toyo University)
Power Supply Voltage Reduction in Exponentiation Conversion CMOS IC
Naoya Nishiyama, Fumiya Matsui, Yuji Sano

3 Chih-Peng Fan (National Chung Hsing University)
Design and Analysis of Two-Stage Deep Learning Technology Based Iris Recognition Methodologies
Cheng-Shun Hsiao and Chih-Peng Fan

4 Lengkheng Nengvang (Gunma University)
Study of the Two-Step Incremental Delta-Sigma ADC Architecture With Self-Calibration
using Two Reference Voltages Ratio
Lengkheng Nengvang, Shogo Katayama, Jianglin Wei, Lei Sha, Tri Minh Tran¹, Anna Kuwana,
Kazufumi Naganuma, Kiyoshi Sasai, Junichi Saito, Haruo Kobayashi

5 Shuhei Yamamoto (Gunma University)
Efficient Equivalent-Time Sampling Based on Metallic Ratio Law
Shuhei Yamamoto, Yuto Sasaki, Yujie Zhao, Jianglin We, Anna Kuwana (Gunma University),
Keno Sato, Takashi Ishida, Toshiyuki Okamoto, Tamotsu Ichikawa (ROHM Semiconductor),
Takayuki Nakatani, Tri Minh Tran, Shogo Katayama, Kazumi Hatayama, Haruo Kobayashi (Gunma University)

15:15-16:15 Zoom room 2: Technical session D

Session chair: Prof. Atsuhiko Takahashi

1 Souma Yamamoto (Gunma University)
Evaluation of Current-Driven IGBT Driver Circuit
Yudai Abe, Akio Iwabuchi, Jun-ichi Matsuda, Souma Yamamoto, Anna Kuwana, Haoyang Du,
Takafumi Kamio, Takashi Hosono, Haruo Kobayashi

2 Takashi Hosono (Gunma University)
Study on Peaking Current Source with Self-Bias Configuration Insensitive to Temperature and Supply Voltage
T. Hosono, T. Kamio, S. Yamamoto, J. Matsuda, K. Hirai, S. Katayama, T. Feng, A. Kuwana, H. Kobayashi

A. Suzuki , S. Yamada, T. Kato, R. Kitakoga, T. Shimamura G.Adhikari, N. Ono, K. Miura

3 Chun-Wen Yang (MSEDA Lab, Institute of Electronics, NYCU)

A Novel Analog Layout Migration with Integrated P&R Engine

Chun-Wen Yang, Wei-Xiang Chou

4 Chih-Yun Chou (MSEDA Lab, Institute of Electronics, NYCU)

Fast Variation-aware Circuit Sizing Approach for Analog Design with ML-Assisted Evolutionary Algorithm

Ling-Yen Song, Tung-Chieh Kuo, Ming-Hung Wang, Chien-Nan Jimmy Liu, Juinn-Dar Huang

5 Naoto Yonemoto (Tokushima University)

Order and Incidence of Chaos Propagation in Complex Networks

Naoto Yonemoto, Yoko Uwate, Yoshifumi Nishio