2024 International Conference on Analog VLSI Circuits

October 15 (Tue) - October 17 (Thu) 2024, Kuala Lumpur, Malaysia

Advanced Program

Malaysia Standard Time (UTC+8)

October 15, 2024 (Tuesday)

Start	End	
12:00	14:00	Registration and Lunch
14:00	14:20	Opening Ceremony
		Dua recitation
		Welcoming Speech from Secretary:
		Assoc. Prof. Dr. Yasuhiro Takahashi
		Opening Remark from General Chair:
		Assoc. Prof. Ir. Dr. Nazrul Anuar Nayan
14:20	14:25	Token Appreciation
14:25	14:40	Group Photo
14:40	15:30	Invited Talk 1: **Maximizing National Impact: Effective Management of Commercially-driven R&D Programs** Speaker: **Ir. Dr. Nordin Ramli** Chairperson: Prof. Dr. Norhisam Misron
15:30	15:35	Short Coffee break
15:35	16:15	Invited Talk 2: **AI/ML-driven EDA for Next-Generation IC Design** Speaker: **Assoc. Prof. Ir. Ts. Dr. Fakhrul Zaman Rokhani** Chairperson: Prof. Dr. Norhisam Misron
		Session End
16:30	17:30	Networking Session (High Tea)

October 16, 2024 (Wednesday)

Start	End	
11:00	12:00	Session 1: **Analog Circuit 1 and Signal Processing** Oral Presentation Chairperson 1: Assoc. Prof. Dr. Yasuhiro Takahashi, Chairperson 2: Dr. Mohd Zubir Suboh
12:00	13:30	Lunch
13:30	14:30	Session 2: **Low-power Circuit 1** Oral Presentation Chairperson 1: Prof. Dr. Toshihiko Hamasaki, Chairperson 2: Dr. Mohd Azraie Mohd Azmi
14:30	15:00	Coffee break
15:00	16:20	Session 3: **Analog Circuit 2** Oral Presentation Chairperson 1: Assoc. Prof. Dr. Kazuyuki Wada, Chairperson 2: Assoc. Prof. Ir. Dr. Nazrul Anuar Nayan
18:00	20:00	Banquet

October 17, 2024 (Thursday)

Start	End	
10:30	11:50	Session 4: **Low-power Circuit 2** Oral Presentation Chairperson 1: Prof. Dr. Nobukazu Takai, Chairperson 2: Assist. Prof. Dr. Ryoichi Miyauchi
11:50	12:10	Best paper award presentation Closing Ceremony
12:10	14:00	Lunch

Regular Session

Wednesday October 16 11:00–12:00

Session 1: Analog Circuit 1 and Signal Processing

Chairman: Assoc. Prof. Dr. Yasuhiro Takahashi & Dr. Mohd Zubir Suboh

1. Design of an analog integrated circuit solving the two-armed bandit problem in 180-nm CMOS for operation verification, *Kohei Mori*, Kazuyuki Wada, Kawori Sekine (Meiji University); Shinsuke Hara (National Institute of Information and Communications, Japan)*

2. High-speed 2AB problem solving System IC in CMOS 180 nm Technology, *Rin Tsuboi*, Kawori Sekine, Kazuyuki Wada (Meiji University, Japan); Akifumi Kasamatsu, Shinsuke Hara, Satoru Tanoi (National Institute of Information and Communications Technology, Japan)*

3. Development of a system for measuring chlorophyll-a concentration by spectral analysis of underwater images, *Shunya Kosako*, Karin Sakamoto, Toshihiko Hamasaki (Hiroshima Institute of Technology, Japan)*

Wednesday October 16 13:30–14:30
Session 2: Low-power Circuit 1
Chairman: TBA & Dr. Mohd Azraie Mohd Azmi

4. Design and simulation of low-power SRAM-PUF circuit using adiabatic logic, *Jiaming Liu*, Yasuhiro Takahashi (Gifu University, Japan)*

5. Memory recall using hardware reservoir computing with HSWNN, *Takuto Yamaguchi*, Katsutoshi Saeki (Nihon University)*

6. Voltage-controlled oscillator with schmitt trigger inverter utilizing a reverse biased diode, *Masanori Nambu*, Katsutoshi Saeki (Nihon University, Japan)*

Wednesday October 16 15:00–16:20
Session 3: Analog Circuit 2
Chairman: Assoc. Prof. Dr. Kazuyuki Wada & Assoc. Prof. Ir. Dr. Nazrul Anuar Nayan

7. Control parameters prediction of digital DC-DC converter using A2DoF control by deep learning, *Daiki Okada* (Gunma university, Japan); Nobukazu Takai (Kyoto Institute of Technology University, Japan)*

8. Reducing the number of simulations in analog circuit design using SAASBO, *Ryo Takagi* (Kyoto Institute of Technology, Japan); Tsuyoshi Masubuchi (Gunma University, Japan); Nobukazu Takai (Kyoto Institute of Technology, Japan)*

9. Characterization of semantic communication systems considering nonlinear amplifiers, *Qijian Zhang*, Daisuke Umehara, Nobukazu Takai (Kyoto Institute of Technology, Japan)*

10. Improvement of the linearity and efficiency in the Doherty power amplifier by using an active power divider with proper power-division, *Ryuji Oka*, Akira Hyogo, Ryoichi Miyauchi, Tatsuji matsuura (Tokyo University of Science, Japan)*

11. An evaluation method for glitch noise and residual offset voltage caused by CMFB amplifier in ping-pong auto-zero amplifiers, *Hiroshi Endo*, Kazuhiro Takatori, Jun Yamashita (Nisshinbo Micro Devices Inc., Japan); Ryoichi Miyauchi, Akira Hyogo (Tokyo University of Science, Japan)*

Thursday October 17 10:30–12:10
Session 4: Low-power Circuit 2
Chairman: Prof. Nobukazu Takai & Assist. Prof. Dr. Ryoichi Miyauchi

12. Ultra-low power double-tail dynamic comparator design using 180 nm CMOS technology, *Julie Roslita Rusli*, Mohd Azraie Mohd Azmi, Muhammad Nubli Zulkifli (Universiti Kuala Lumpur, Malaysia); Suhaidi Shafie; Mohd Amrallah Mustafa (Universiti Putra Malaysia, Malaysia); Rohana Sapawi (Universiti Malaysia Sarawak, Malaysia)*

13. Kinetic energy harvester design for powering wireless sensor nodes, *Nur Luqman Hakim Azmi, Noor Hidayah Mohd Yunus* (Universiti Kuala Lumpur British Malaysian Institute, Malaysia); Mohd Azraie Mohd Azmi (UniKL, Malaysia); Jahariah Sampe (Universiti Kebangsaan Malaysia, Malaysia); Norliana Yusof (UniSZA, Malaysia); Hanani Mohamed Nadzirin (Universiti Kuala Lumpur Malaysian France Institute, Malaysia)*

14. Recent developments in embedded system and IoT protocols, *Nazrul Anuar Nayan*, Muhammad Syafieq, Mohamad Salehudin, Jahariah Sampe, Ahmed-Khudhur Nsaif (Universiti Kebangsaan Malaysia, Malaysia)*

15. A wireless approach to electrochemical measurement and analysis Using potentiostat technology, *Mohd Azraie Mohd Azmi* (UniKL, Malaysia); Nazrul Anuar Nayan (Universiti Kebangsaan Malaysia, Malaysia); Julie Roslita Rusli (Universiti Kuala Lumpur, Malaysia); Noor Hidayah Mohd Yunus (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)*

"*" is a presenter.