2021 年 12 月 9 日

学会参加報告書

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（群馬大学 大学院博士前期課程 2 年）

学会名：International Conference on Technology and Social Science 2021
開催場所：桐生, 日本（オンライン）
開催日時：　Dec.7-Dec.9, 2021

学会概要：
The 5th International Conference on Technology and Social Science は NPO e-JIKEI Network Promotion Institute(ENPI)と International Research Enthusiast Society Inc. で開催されました。

発表内容：
私の発表テーマは“Revival of Asynchronous SAR ADC based on Hopfield Network”です。発表時間は 12 月 9 日の 16 時 00 分からの 15 分間でした。

5th International Conference on Technology and Social Science Dec.9, 2021

Revival of Asynchronous SAR ADC based on Hopfield Network

Zifei Xu, Xueyan Bai, Dan Yao,
Anna Kuwana, Haruo Kobayashi

Division of Electronics and Informatics
Gunma University

群馬大学 GUNMA UNIVERSITY

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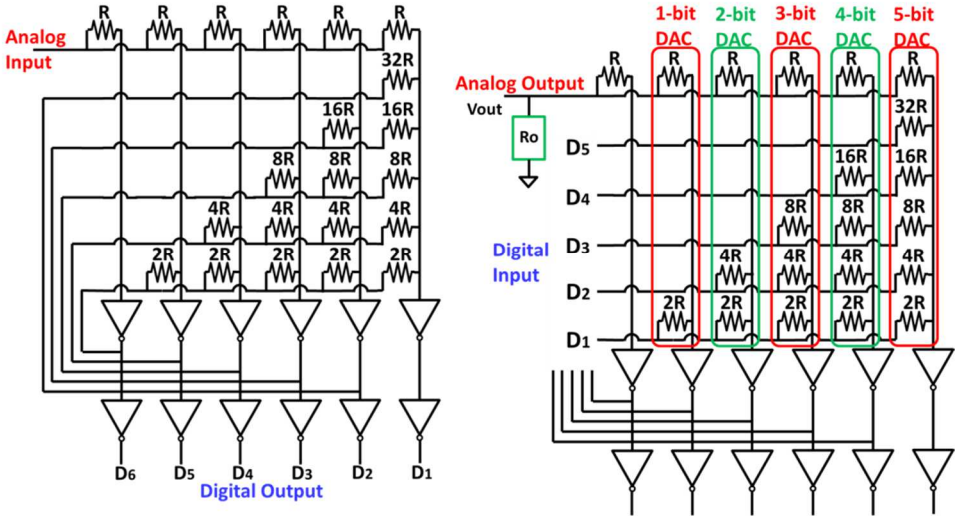
参加経過：



今回桐生国際学会は私が参加した 2 回目の国際学会です。この前中国の成都で開催された国際学会に参加しましたので、今回はもっと多くの経験を持って対応しました。今回は前回に基づいて改善しましたので、先生に助けられて、今回の学会発表を無事に終えました。発表会ではそれぞれの研究を知ることができ、自分の不足しているところが分かりました。これから勉強をもっと頑張って、先進技術を創造できるように目指したいと思います。

謝辞：

今回の国際学会を通じて、私は深く啓発されました。小林研究室の一員になれて非常に幸せだと思います。小林春夫先生のご指導、桑名杏奈先生のサポート、白雪妍さん、姚丹さんの研究協力に心から感謝申し上げます。

IPS-2: Analog/Mixed-Signal/Power Supply Circuits and Their Related Technology

KL-03: Smart Mathematics Leads to Sophisticated Analog/Mixed-Signal Circuit Design
Haruo Kobayashi, Ph.D

I02-06: Comparison of Three Types of Startup Circuits for Self-biasing MOS Reference Current Sources
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

I02-07: Finite Element Analysis of Phase-Change Device with Incorporated Nanostructures for Lowering Writing Current
Ryoma Shirakawa, You Yin

I02-08: Terahertz Radio in System Level Simulation
Tatsuo Hagino, Shinsuke Hara, Ruibing Dong, Satoru Tanoi, Mohamed H. Mubarak, Issei Watanabe, Akifumi Kasamatsu

I02-09: Generalized Leslie-Singh Architecture of 1st order Delta-Sigma AD Modulator with Different Resolutions of ADC and DAC
Lengkhang Nengvang, Shogo Katayama, Jianglin Wei, Lei Sha, Anna Kuwana, Kazufumi Naganuma, Kiyoshi Sasai, Junichi Saito, Katsuaki Morishita, Haruo Kobayashi

I02-10: Segmented DAC Linearity Improvement Algorithm Using Unit Cell Sorting with Digital Method
Yi Liu, Anna Kuwana , Xiongyan Li, Atsushi Motozawa, Haruo Kobayashi

I02-11: Model Simplification and Modeling of SiC MOSFET
Tianyu Yan, Hao Long, Jianyang Zhou, Haijun Lin

I02-12: Revival of Asynchronous SAR ADC based on Hopfield Network
Zifei Xu, Xueyan Bai, Dan Yao , Anna Kuwana, Haruo Kobayashi

I02-13: Proactive Use of Finite Aperture Time in Sampling Circuit for Sensor Interface
Yonglun Yan, Miho Arai, Anna Kuwana, Haruo Kobayashi

I02-14: On how we have dealt with the COVID-19 at NIT Oyama College
Kazuyoshi Kubo, Masato Kasahara, Mitsuomi Ideo, Yasuhiro Kato

Invited Papers Session 02

[Organizer]
Prof. Haruo Kobayashi

Professor, Gunma University (Japan)
[Title] Analog/Mixed-Signal/Power Supply Circuits and Their Related Technology
[Abstract]
This session discusses analog/mixed-signal/power supply circuits and their related technology, which are very important for Internet-of-Things (IoT) and green environment. It covers wide range from fundamental theory to industry applications, and also from basics to the state-of-the art, as well as their education.

[Time Table]

[IPS-02] 9th December, 2021 (Thur), DAY-3, 10:00-17:00
ZOOM ID: Refer to the ZOOM information page (exclusively only for the registered participants)
ZOOM Passcode: Refer to the ZOOM information page (exclusively only for the registered participants)

14:15-14:35
[10] Invited Paper (20min): Tatsuo Hagino, Shinsuke Hara, Ruibing Dong, Satoru Tanoi, Mohamed H. Mubarak, Issei Watanabe, Akifumi Kasamatsu (National Institute of Information and Communications Technology)
Terahertz Radio in System Level Simulation

Speaker: Tatsuo Hagino, Researcher at National Institute of Information and Communications Technology, Japan

14:35-14:50
[11] Student Paper (15min): Lengkhang Nengvang, Shogo Katayama, Jianglin Wei, Lei Sha, Anna Kuwana (Gunma U), Kazufumi Naganuma, Kiyoshi Sasai, Junichi Saito, Katsuaki Morishita (ALAP), Haruo Kobayashi (Gunma U)
Generalized Leslie-Singh Architecture of 1st order Delta-Sigma AD Modulator with Different Resolutions of ADC and DAC

Speaker: Lengkhang Nengvang, Master course student at Gunma University

3:15pm-5pm
Session Chair: Haruo Kobayashi (Gunma U)

15:15-15:30
[12] Student Paper (15min): Yi Liu, Anna Kuwana , Xiongyan Li (Gunma U), Atsushi Motozawa (Renesas Electronics), Haruo Kobayashi (Gunma U)
Segmented DAC Linearity Improvement Algorithm Using Unit Cell Sorting with Digital Method

Speaker: (Ms) Yi Liu, Master course student at Gunma University

15:30-15:50
[13] Invited Paper (20min): Tianyu Yan, Hao Long, Jianyang Zhou (Xiamen University), Haijun Lin (Xiamen University of Technology)
Model Simplification and Modeling of SiC MOSFET

Speaker: Haijun Lin, Professor at Xiamen University of Technology, China

15:50-16:05
[14] Student Paper (15min): Zifei Xu, Xueyan Bai, Dan Yao , Anna Kuwana, Haruo Kobayashi (Gunma U)
Revival of Asynchronous SAR ADC based on Hopfield Network

Speaker: Zifei Xu, Master course student at Gunma University