

Advance Program

20AM1 : Keynote Speech 1

Date: August 20, 9:45-10:35

Room: Forum Hall, Shikoku University Plaza, Shikoku University

Chair: XXXX XXXX (XXXX XXXX)

20AM1-1 Thermal/Traffic-aware 3D Network-on-Chip (NoC) Designs 1

An-Yeu Wu (National Taiwan University)

20AM2 : Keynote Speech 2

Date: August 20, 10:40-11:30

Room: Forum Hall, Shikoku University Plaza, Shikoku University

Chair: XXXX XXXX (XXXX XXXX)

20AM2-1 Designs of high-frequency and high-efficiency amplifiers -Applications of computation algorithm of bifurcation analyses to amplifier designs- 2

Hiroo Sekiya (Chiba University)

20PM1-1 : Power and Energy Circuits and Systems

Date: August 20, 13:00-14:12

Room: Seminar Room 1, Shikoku University Plaza, Shikoku University

Chair: XXXX XXXX (XXXX XXXX)

20PM1-1-1 Analysis of Class-E² Wireless Power Transfer System for Any System Parameter 3

Tomoharu Nagashima (Chiba University), Xiuqin Wei (Nagasaki University), Hiroo Sekiya (Chiba University)

20PM1-1-2 A Comprehensive Design Procedure of Inductively Coupled Wireless Power Transfer System for Maximizing Overall Efficiency 4

Takumi Noda (Chiba University), Tomoharu Nagashima (Chiba University), Hiroo Sekiya (Chiba University)

20PM1-1-3 Constant-on-time Control Technique for DC-DC Buck Converter in System-on-a-chip Applications 5

Wei-Chung Chen (National Chiao Tung University), Wei-Tin Lin (National Chiao Tung University), Ying-Wei Chou (National Chiao Tung University), Meng-Wei Chien (National Chiao Tung University), Chin-Long Wey (National Chiao Tung University), Ke-Horng Chen (National Chiao Tung University)

20PM1-1-4 Automatic Synthesis Platform for Low Dropout Regulator 6

Ling-Yen Song (National Central University), Hao-Yu Chi (National Central University), Hsing-Ju Chang (National Central

University), Chien-Nan Liu (National Central University)

20PM1-2 : Signal and Image Processing

Date: August 20, 13:00-14:12

Room: Seminar Room 2, Shikoku University Plaza, Shikoku University

Chair: XXXX XXXX (XXXX XXXX)

20PM1-2-1 Two-Electrode ECG Signal Recorder Design with DSP algorithms

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Shin-Chi Lai (Nan Hua University), Kuan-Ying Chang (National Yunlin University of Science and Technology), Te-Hsuan Hung (Nan Hua University), Wen-Chih Li (Nan Hua University), Siang-Ling Lu (Nan Hua University), Hung-Ju Chen (Nan Hua University)

20PM1-2-2 Zero-Watermarking Method of Audio by DWT and Energy

8

Shu-Min Tsai (National Penghu University of Sci. and Tech.)

20PM1-2-3 An Edge Based Super Resolution Algorithm for Image Up-sampling

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Pin-Chen Kuo (National Cheng Kung University), Yun-Ning Hsu (National Cheng Kung University), Bin-Da Liu (National Cheng Kung University), Jar-Ferr Yang (National Cheng Kung University)

20PM1-2-4 Image Processing by Using Switching System with Cellular Neural Networks and Delayed Cellular Neural Networks

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Taro Nakano (Tokushima University), Yoko Uwate (Tokushima University), Yoshifumi Nishio (Tokushima University)

20PM2-1 : Circuit Design

Date: August 20, 15:15-16:27

Room: Seminar Room 1, Shikoku University Plaza, Shikoku University

Chair: XXXX XXXX (XXXX XXXX)

20PM2-1-1 Long Life Line Frequency LED Driver

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Tsorng-Juu Liang (National Cheng Kung University), W. J. Tseng (National Cheng Kung University), Jiann Fuh Chen (National Cheng Kung University), J. P. Wu (National Cheng Kung University)

20PM2-1-2 Transmission zero embedded dual-band impedance transformer with three shunt stubs

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Ming-Lin Chuang (National Penghu University of Sci. and Tech.), Ming-Tien Wu (National Penghu University of Sci. and Tech.)

20PM2-1-3 A Limited-Contention Cross-Coupled Level Shifter for Wide-Range Voltage Conversion

13

Chi-Ray Huang (Cheng Kung University), Lih-Yih Chiou (Cheng Kung University), Sheng-Kai Lo (Cheng Kung University)

20PM2-1-4 High-voltage Sense Stage on Silicon

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Chua-Chin Wang (National Sun Yat-Sen University), Zong-You Hou (National Sun Yat-Sen University), Wen-Je Lu (National Sun Yat-Sen University), Sheng-Syong Wang (National Sun Yat-Sen University)

20PM2-2 : Optimization of Circuits and Systems

Date: August 20, 15:15-16:27

Room: Seminar Room 2, Shikoku University Plaza, Shikoku University

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20PM2-2-1 Design Method of Resonant DC-DC Converter Applying Computation Algorithm of Bifurcation Value Derivation

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Yuta Yamada (Chiba University), Tomoharu Nagashima (Chiba University), Hiroo Sekiya (Chiba University)

20PM2-2-2 Optimization of Class E DC/DC Converter by PSO

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Ryoji Horino (Kagawa University), Yuichi Tanji (Kagawa University)

20PM2-2-3 Robustly Efficient Parameters for Optimizer Based on a Piecewise Rotational Chaotic System

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Yoshikazu Yamanaka (Nagaoka University of Technology), Tadashi Tsubone (Nagaoka University of Technology)

20PM2-2-4 Application of Quadratic Placement Optimization to Proton Beam Therapy

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Yasurhiro Takashima (University of Kitakyushu), Shohei Mizutani (University of Tsukuba), Kenji Hotta (National Cancer Center Hospital East), Ryosuke Kohno (National Cancer Center Hospital East), Yuichi Nakamura (NEC Corporation)

21AM1-1 : VLSI Systems and Applications

Date: August 21, 09:00-10:12

Room: Seminar Room 1, Shikoku University Plaza, Shikoku University

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21AM1-1-1 A Heterogeneous System Architecture Conformed GPU Platform Supporting OpenCL and OpenGL

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Yung Hsu (National Cheng Kung University), Heng-Yi Chen (National Cheng Kung University), Chung-Ho Chen (National Cheng Kung University)

21AM1-1-2 Design of an Intelligent Drowsiness Detection System

20

Robert Chang (National Chung Hsing University), Hung-Lieh Chen (National Chung Hsing University), Ming-Fan Wei (National Chung Hsing University), Kuang-Hao Lin (National Formosa University of Technology), Chih-Hung Lin (National Chung Hsing University), Yu-Ya Kao (National Chung Hsing University)

21AM1-1-3 Incremental Monte Carlo Simulation for Fast Yield Analysis

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Nguyen Qui (National Central University), Hsu-Ping Yang (National Central University), Chien-Nan Liu (National Central University)

21AM1-1-4 Correlation Power Analysis Method for a Lightweight Block Cipher Simon

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Yusuke Nozaki (Meijo University), Kensaku Asahi (Meijo University), Masaya Yoshikawa (Meijo University)

21AM1-2 : Nonlinear Circuits and Systems I

Date: August 21, 09:00-10:12

Room: Seminar Room 2, Shikoku University Plaza, Shikoku University

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Satoshi Kondo (Kagawa University), Yuichi Tanji (Kagawa University)

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Mana Tanaka (Tokushima University), Yasuteru Hosokawa (Shikoku University), Yoko Uwate (Tokushima University), Yoshifumi Nishio (Tokushima University)

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Masataka Iwai (Osaka University), Toshimitsu Ushio (Osaka University)

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Yuu Miino (Tokushima University), Daisuke Ito (The University of Shiga Prefecture), Tetsushi Ueta (Tokushima University)

21AM2-1 : Biomedical and Life Science Circuits and Systems

Date: August 21, 10:45-11:57

Room: Seminar Room 1, Shikoku University Plaza, Shikoku University

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21AM2-1-1 A Baseband Processor of RFID Tag for ECG Detection on Healthcare Systems

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21AM2-1-2 An ECG Monitoring System with Physiological Information Platform

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Huang Peng-Wei (National Cheng Kung University), Lee Shuenn-Yuh (National Cheng Kung University)

21AM2-1-3 Low Power High Driving Capability High Linearity Voltage Buffer For Biomedical Analog Front End

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Tzu-Yun Wang (National Taiwan University of Sci. and Tech.), Sheng-Yu Peng (National Taiwan University of Sci. and Tech.)

21AM2-1-4 Design of a 8bit MCU for Biomedical ICs

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Lih-Yih Chiou (National Cheng Kung University), Chao-Kai Yang (National Cheng Kung University), Shih-Huang Hu (National Cheng Kung University)

21AM2-2 : Nonlinear Circuits and Systems II

Date: August 21, 10:45-11:57

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Tatsuki Sobue (Tokushima University), Yasuteru Hosokawa (Shikoku University), Yoko Uwate (Tokushima University),

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