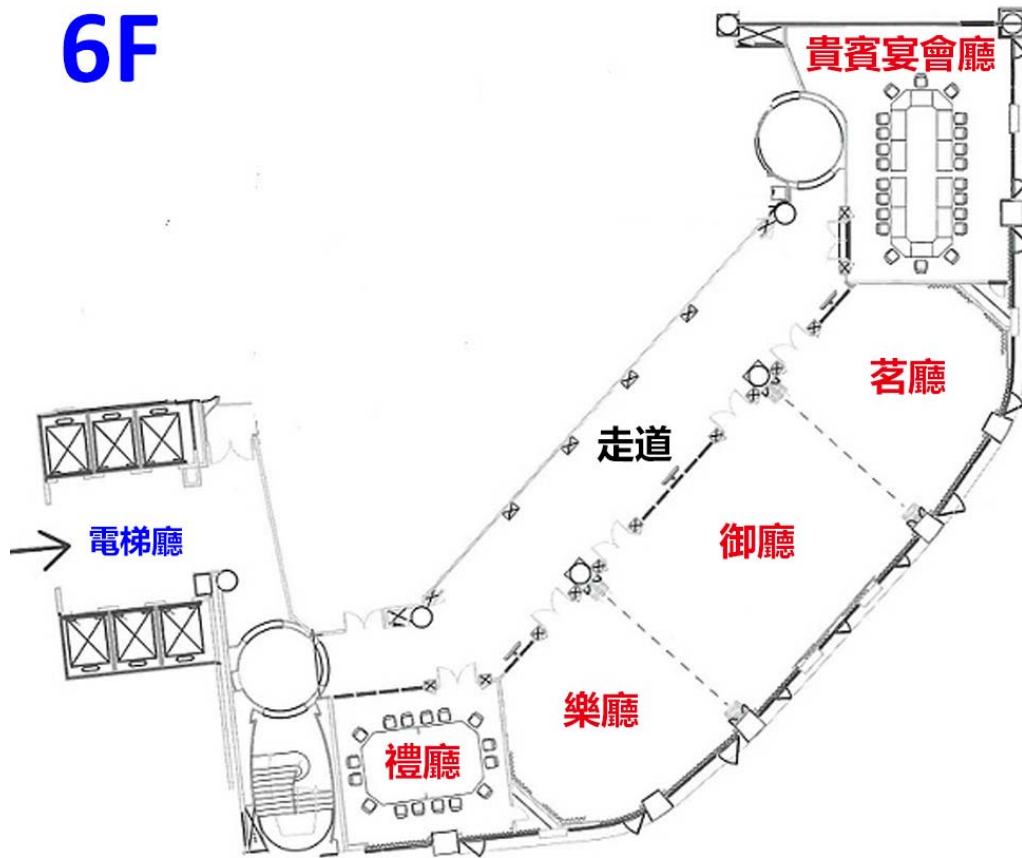
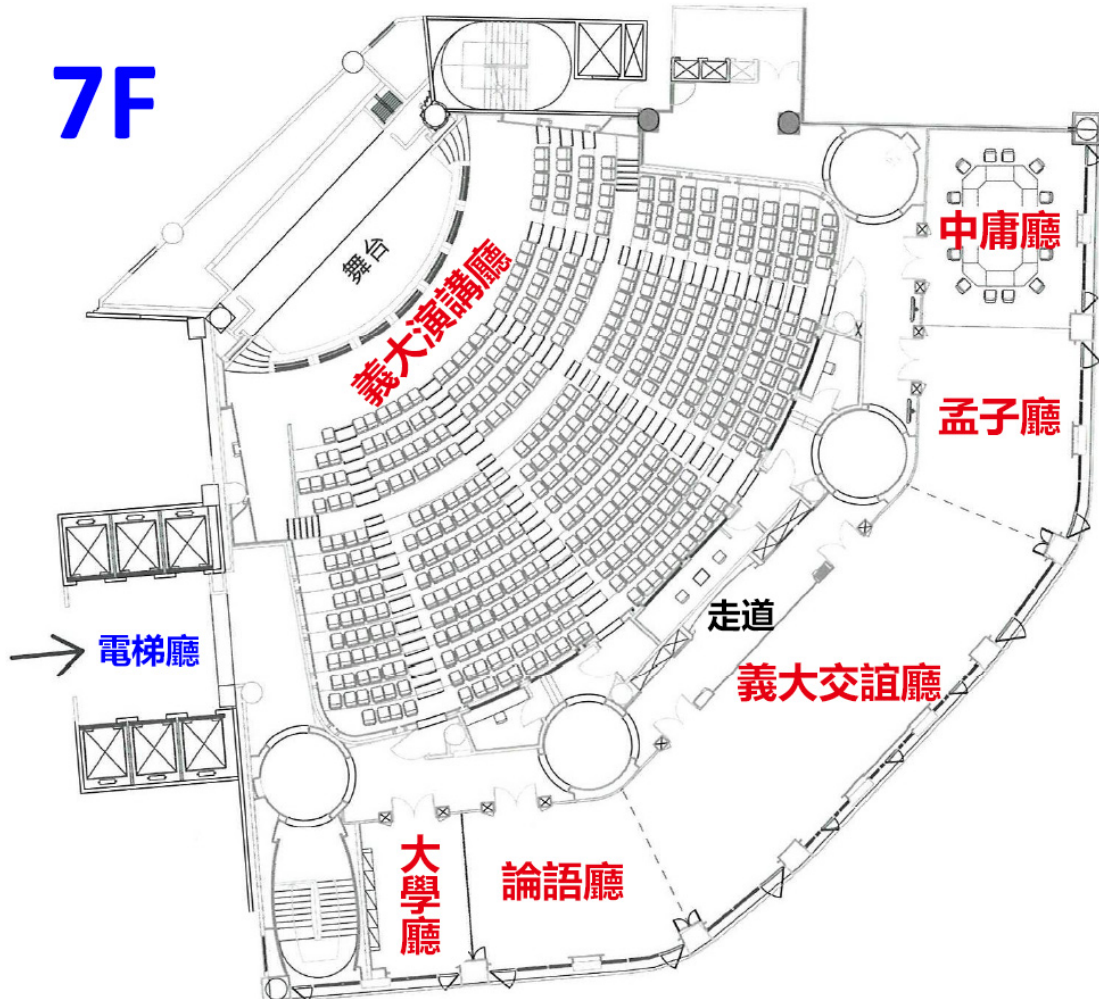


6F



7F



Session Poster 1 (8/7 Wed. 13:30 – 15:00)

Room: 7F 交誼廳

1. (S0017) An FPGA-based System Architecture Design for Agriculture Robotics

Chun-Hsian Huang, Zong-Wei Li, Hsin-Ting Tseng, and Po-Jung Chen

National Taitung University

2. (S0034) A Low-Complexity Joint Color Demosaicking and Zooming Image Processor Design

Wan-Ting Kao, Shih-Lun Chen, and Patricia Angela R. Abu

Chung Yuan Christian University

3. (S0035) Automatic Compositional Formal Verification for RISC-V ISA

Cheng-Ting Kao, Yi-Chun Kao, Tien-Yin Cheng, Chun-Sheng Ke, Chia-Hao Hsu, and Yean-Ru Chen

National Cheng Kung University

4. (S0036) Quadruple-Voltage Power-Performance Optimized H.264 Video Encoder Chip Design and

Validation

Ching-Hwa Cheng (1), An-Tia Xiao (2), and Jiun-In Guo (2)

(1) Feng Chia University and (2) National Chiao Tung University

5. (S0037) PWM Dimming and FPGA control Design for Module LED Display

Shih-Chang Hsia, Wei-Chun Hung, and Ren-Chien Hsu

National Yunlin University of Science and Technology

6. (S0048) A Virtualization-Assisted Full-System Simulation Approach for the Verification of System

Inter-Component Interactions

Hsin-I Wu, Da-Yi Guo, Ren-Song Tsay, and Guan-Shiue Li

National Tsing Hua University

7. (S0073) On Reducing Delay Overhead of Implication-Based Concurrent Error Detection

Tong-Yu Hsieh, Kuang-Chun Lin, and Hsin-Hsien Lin

National Sun Yat-sen University

8. (S0082) A Current-Based Partition Approach for Multiple Sub-Circuit Identification in Mixed-Signal

Circuits

Ling-Yen Song (1), Yu-Kai Chang (2), Han-Chung Chang (1), Chien-Nan Liu (1), Jing-Yang Jou (2), Yun-Jing

Lin (3), Meng-Jung Lee (3)

(1) National Chiao Tung University, (2) National Central University, and (3) Realtek Semiconductor

Corporation

9. (S0088) Hadoop Cluster with FPGA-based Hardware Accelerators for K-means Clustering Algorithm

Ching-Che Chung, Yu-Hsin Wang, and Huai-Xiang Zhang

National Chung Cheng University

10. (S0089) An FPGA-based Transceiver for Human Body Channel Communication using Walsh Codes

Ching-Che Chung, Ru-Hua Chang, Ming-Hsuan Li, and Yi-Ting Tsai

National Chung Cheng University

11. (S0096) Improved second minimum value for Probabilistic Min-Sum Algorithm in LDPC decoding

Chen-Xuan Wang and Cheng-Hung Lin

Yuan Ze University

12. (S0099) Early Termination Scheme for Polar Belief Propagation Decoding

Min-Jung Sung and Cheng-Hung Lin

Yuan Ze University

13. (S0101) Novel Hybrid BP-SCSCL Decoding for Polar Code

Chun-Wei Huang and Cheng-Hung Lin

Yuan Ze University

14. (S0112) Implementation of Auto-calibrating Time-to-Digital integrating an Embedded Processor System

on Low-Cost FPGA

Wei-Da Chen, Hui-Yu Liang, You-Chen Zhang and Zhi-Xin Lin

Oriental institute of technology

15. (S0113) A low voltage and low power true-signal-phase flip-flop design by using reduce the number of

clocked transistors

Jin-Fa Lin, Shao-Wei Yu, Chang-Ming Tsai, and Zheng-Jie Hong

Chaoyang University of Technology

16. (S0114) A Reconstruction Image System for Tumor Detection Using Breast Phantoms

Jia-Jiun Guo, Wen-Jun Wu, and Wai-Chi Fang

National Chiao Tung University

17. (S0123) Circuit Implementation for 8x8 DCT Transform and Quantization Operations of HEVCMPEG-2

Video Codec

En-Pei Wu and Pei-Jun Lee

National Chi Nan University

18. (S0129) Hybrid SRAM/STT-MRAM Energy and Performance Improvement via Novel Memory-to-LLC

Placement Policy

Chien-Lun Lo (1), Ing-Chao Lin (2), Hsiang-Yun Cheng (3), Da-Wei Chang (2), and Yun-Yang Shih (2)

(1) Global Unichip Corp., (2) National Cheng Kung University, and (3) Academia Sinica

19. (S0133) High Precision PLL Delay Matrix with Overclocking and Double Data Rate For Accurate Time-to-Digital Conversion

Poki Chen, Ruei-Ting Wang, and Nguyen My Qui

National Taiwan University of Science and Technology

20. (S0137) Temperature Prediction Method for Thermal-aware NoC System by Using On-the-Fly Machine Learning Process

Kun-Chih (Jimmy) Chen and Yuan-Hou (Jack) Liao

National Sun Yat-sen University

21. (S0141) A CNN Chip Implementation for Real-Time EEG-based Emotion Recognition

Yu-De Huang, Kai-Yen Wang, Yun-Lung Ho, and Wai-Chi Fang

National Chiao Tung University

22. (S0147) An Integrated PPG and ECG Signal Processing Design of EEMD Processor

I-Wei Chen, Wen-Jun Wu, and Wai-Chi Fang

National Chiao Tung University

23. (S0154) On Accurate No-Reference Error-Tolerability Testing of Videos

Tong-Yu Hsieh, Pao-Chien Li, Shang-En Chan, and Chao-Ru Chen

National Sun Yat-sen University

24. (S0173) Effective FPGA Resource Utilization for QDI Implementation of Asynchronous Circuits

Yi-Fan Evan Chang, Ruei-Yang Huang, and Jie-Hong Roland Jiang

National Taiwan University

25. (S0181) Threshold Function Identification

Chin-Heng Liu (1), Chia-Chun Lin (1), Yung-Chih Chen (2), Chia-Cheng Wu (1), Chun-Yao Wang (1)

(1) National Tsing Hua University and (2) Yuan Ze University

26. (S0192) Image Enhancement for Robust Face Recognition Based on Convolutional Neural Networks

Meng-Hua Li, Shiann-Rong Kuang, Chun-Feng Huang, and Chen-Ting Huang

National Sun Yat-sen University

27. (S0193) Region Estimation Hardware Acceleration Based on Binarized Neural Network using PYNQ FPGA platform

Pin-He Liu (1), Jhi-Jyun Fu (1), Afaroj Ahamad (2), and Chi-Chia Sun (1)

(1) National Formosa University and (2) Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, India

28. (S0201) A Partition-Based Cell Generation for HighPerformance and Printability in Advanced Node

Yao-Lin Chang, Po-Cheng Pan, Chien-Hung Lin, and Hung-Ming Chen

National Chiao Tung University

29. (S0210) Row-based Direct-Mapping Estimators in Fixed-width Modified Booth Multipliers

Chung-Yi Li, Yuan-Ho Chen, Lu-An Lai, Wen-Chi Yeh, and Jun Yang

Chang Gung University and Chang Gung Memorial Hospital

30. (S0211) A Unified and Flexible Eigen-Solver for Rank-Deficient Matrix in MIMO Precoding/Beamforming

Applications

Su-An Chou and Pei-Yun Tsai

National Central University

Session Poster 2 (8/7 Wed. 15:30 – 17:00)

Room: 7F 交誼廳

1. (S0006) A 10-bit 2.27 MS/s Successive Approximation Register Analog-to-Digital Converter with eight-way switches and two control modes

Guo-Ming Sung, Shih-Ying Hsu, Jun-Min Xu, and Cheng Chih-Ping Yu

National Taipei University of Technology

2. (S0007) Gate Driver Circuit for three-phase Brushless DC Motor

Guo-Ming Sung, Zhao-Long Chen, Meng-Lun Li, and Cheng Chih-Ping Yu

National Taipei University of Technology

3. (S0008) A 12-bit 100-kS/s Synchronous-SAR ADC for IoT Applications

Jiun-Wei Lai, Min-Sheng Chiang, and Yung-Hui Chung

National Taiwan University of Science and Technology

4. (S0009) A High-Efficiency Current-Mode-Hysteretic Buck Converter with Constant-Frequency-Controlled Techniques

Yun-Hua Li and Jiann-Jong Chen

National Taipei University of Technology

5. (S0011) A Fast-Transient Response Hysteretic-Controlled Buck Converter with New Integral Current-Sensing Techniques

Wei-Chieh Hsu and Jiann-Jong Chen

National Taipei University of Technology

6. (S0024) Using 3D-PCB Stacking System to Design a Low-Power Two-Lenses Wireless Panoramic Micro-Endoscopy

Ching-Hwa Cheng (1), Xiang-Ren Yang (1), and Jiun-In Guo (2)

(1) Feng-Chia University and (2) National Chiao Tung University

7. (S0027) A High-Switching-Frequency Current-Mode Buck Converter With PLL-Based

Hysteresis-Controlled Techniques

Min-En Wu and Jiann-Jong Chen

National Taipei University of Technology

8. (S0033) A Hysteresis-Controlled Buck Converter with Phase-Frequency-Locked Technique and New Active Integral Current-Sensing Technique

Cheng-Pu Hsieh (1) , Yuh-Shyan Hwang (1), and Ming-Shian Lin (2)

(1) National Taipei University of Technology and (2) National Chung-Shan Institute of Science and Technology

9. (S0038) 256-step Current Dimming Chip Design for High Power LED Driver

Shih-Chang Hsia, Yu-Kai Yeh, and Jing-Jyun Peng

National Yunlin University of Science and Technology

10. (S0046) A Digital Boost PFC Converter with Mixed Conduction Mode Operation

Heng-Ci Lin, Chun-Yu Chen, Chien-Hung Tsai, and Siou-Sian Lin

National Cheng Kung University

11. (S0053) High-Efficiency Boost Converter with a Novel Zero Current Detector

Hou-Ming Chen, Yu-Hui Lin, Yong-Xin Lin, He-Sheng Fu, and Hsien-Chi Huang

National Formosa University

12. (S0054) An Ultra-Wide-Bandwidth Hybrid Supply Modulator for 5G

Cheng-Lin Hsieh and Yuh-Shyan Hwang

National Taipei University of Technology

13. (S0057) A Constant On-Time Buck Converter with Spread Spectrum Clock Generator

Yo-Da Lin, Jing-Yuan Lin, and Huang-Jen Chiu

National Taiwan University of Science and Technology

14. (S0059) A D/A Converter Composed of a Hybrid Sturdy MASH-21 Delta-Sigma Modulator and a Class-D

Amplifier for Earphones

Yun-Chen Law and Chia-Yu Yao

National Taiwan University of Science and Technology

15. (S0062) A 13.56MHz Dual-Output Regulated Active Rectifier with Pulse-Skip Modulation for Implantable Medical Devices

Fu-Bin Yang, Wei-Hsuan Hsu, Bing-Jen Wu, and Po-Hung Chen

National Chiao Tung University

16. (S0065) A Wide-Input Range High-Efficiency Single-Inductor Dual-Input Energy Harvesting Interface for Multi-Source Energy Harvesting

Chi-Wei Liu, Dao-Han Yao, and Po-Hung Chen

National Chiao Tung University

17. (S0066) Capacitance Mismatch Calibration Algorithm based on Least Square and Iterative Methods for an Energy-efficient Monotonic Switching SAR ADC

Shin-Chi Lai (1), Yu-Yun Xiao (2), Yu-Syuan Jhang (2), and Ming-Hwa Sheu (2)

(1) Nanhua University and (2) National Yunlin University of Science and Technology

18. (S0067) All-Digital CMOS Pulse-Shrinking Smart Temperature Sensor with Improved Accuracy

Kai-Hsiang Chang and Chun-Chi Chen

National Kaohsiung University of Science and Technology

19. (S0071) Output Capacitor-less Low-Dropout Regulator with Adaptive Power Transistors Technique and

Feedforward Path Compensation

Jian-Jiun Chen and Shao-Ku Kao

Chang Gung University

20. (S0079) A 4th-Order Sigma Delta Modulator for Audio Application

Jia-Xun Li and Chung-Chih Hung

National Chiao Tung University

21. (S0093) A Single-Inductor Triple-Input Dual-Output DC-DC Converter for Photovoltaic and Piezoelectric

Energy Harvesting Systems

I-Chou Chen, Che-Wei Liang, and Tsung-Heng Tsai

National Chung Cheng University

22. (S0115) A Power-Efficient Highly-Linear Reconfigurable OTA-C Filter with ODQDPs

Hui-Chun Huang, Yi-Heng Wu, Jyun-Hao Huang, and Sheng-Yu Peng

National Taiwan University of Science and Technology

23. (S0143) Improve the Drift Effect of RuO₂ Urea Biosensor Based on Voltage Regulation Method

Zhe-Xin Dong and Po-Yu Kuo

National Yunlin University of Science and Technology

24. (S0158) Buck Converter with Active-Current-Sensing Technique

Jia-Ming Lin and Yuh-shyan Hwang

National Taipei University of Technology

25. (S0161) A High Conversion Rate Time-to-Digital Converter

Sheng-Kai Lo, Yu-Wei Lin, and Lih-Yih Chiou

National Cheng Kung University

26. (S0174) An Energy-Efficient 12b 20MS/s Time-Interleaved SAR ADC

27. (S0185) A High Power-Efficient and Reconfigurable Buffer Amplifier

Hui-Chun Huang, Zu-Jia Lo, Tzu-Hao Li, and Sheng-Yu Peng

National Taiwan University of Science and Technology

28. (S0200) A Multi-Channel Current-Mode Functional Electrical Stimulator with Dual-Shape Selection For
Deep Brain Stimulation

Huang-Hsiang Chang, Yi-Ching Lu, and Sheng-Yu Peng

National Taiwan University of Science and Technology

29. (S0217) A Fast-Transient Switched-Capacitor DC-DC Converter with a Current Sensing Control Technique

Chi-Wei Chen, Hsin-Shu Chen, and Wen-Jong Wu

National Taiwan University

Session Poster 3 (8/8 Thu. 11:30 – 12:30)

Room: 7F 交誼廳

1. (S0015) Energy-Efficient Fast Convolution Algorithm for Deep Convolutional Neural Networks based on FPGA
Wen-Jie Li and Shanq-Jang Ruan
National Taiwan University of Science and Technology
2. (S0025) Optimized Piecewise-Linear Lookup Table without Multipliers for Activation Functions in Neural Network
Wen-Chang Yang and Tsung-Chu Huang
National Changhua University of Education
3. (S0026) Accelerating Neural Network with Totally Self-Checking through Sigmoidal Activation Functions
Chun-Hao Chiang, Liang-Yu Lin, Mo-Han Lin, and Tsung-Chu Huang

National Changhua University of Education

4. (S0043) A Stochastic Spiking Neural Network with on-chip Learning Capability

Vikas, Wu-Xin Lai, Jie An Yu, Ting Heng, and Hsin Chen

National Tsing Hua University

5. (S0047) Rapid Rate-Control Scheme for High Efficiency Video Coding

Jun-An Cai and Jui-Hung Hsieh

National Kaohsiung University of Science and Technology

6. (S0056) Convolution Accelerator for Low-Precision Neural Network

Chia-Ning Liu and Chih-Hung Kuo

National Cheng Kung University

7. (S0058) A Co-Design Technique to Enhance PE Utilization for Sparse Convolutional Neural Networks

Wei-Fan Tseng, Bo-Cheng Lai, and Jyun-Wei Pan

National Chiao Tung University

8. (S0061) Implementation of Personalized ACC System with Deep Neural Network on FPGA

Trong-Yen Lee, Chun-Chieh Hsieh, I-An Lin, and Min-Jia Liu

National Taipei University of Technology

9. (S0064) A Low Power Deep Learning Method for Object Identification

Yi-Hsuan Hsu and Jiun-In Guo

National Chiao Tung University

10. (S0074) Design and Implementation of CAN/FlexRay/Ethernet Gateway for Vehicle Network

Ju-Tse Tsai, Trong-Yen Lee, Chia-Wei Kuo, and Min-Jia Liu

National Taipei University of Technology

11. (S0076) A Robust Faster RCNN Network for PCB Defect Inspection

Yu-Ting Li and Jiun-In Guo

National Chiao Tung University

12. (S0081) Non-Volatile Ferroelectric FET Memory for In-Memory Computing Applications

Tun-Yi Ho and Vita Pi-Ho Hu

National Central University

13. (S0084) Health detection for Potato Leaf with Convolutional Neural Network

Trong-Yen Lee, Jui-Yuan-Yu, and Min-Jia Liu

National Taipei University of Technology

14. (S0090) Design of a DBN Hardware Accelerator for Handwritten Digit Recognitions

Ching-Che Chung, Yi-Zeng Lee, and Huai-Xiang Zhang

National Chung Cheng University

15. (S0100) Scaling Bit-Progressive Neural Networks

Yu-Tang Lin and Yun-Nan Chang

National Sun Yat-sen University

16. (S0104) Unsupervised GAN-based Learning Accelerator Design

Ming-Han Shieh and Jer-Min Jou

National Cheng Kung University

17. (S0106) Classification of Alzheimers Disease, Mild Cognitive Impairment, and Normal Aging based on Neuropsychological Data via Supervised Learning

Gwo Giun (Chris) Lee, Po-Wei Huang, and Yi-Ru Xie

National Cheng Kung University

18. (S0121) Flyback Converter with Constant Current Control for Fast Charger Applications

Ting Chieh Lin, You Ching Wu, and Chin Hsia

National Central University

19. (S0138) AdaBoost-assisted Extreme Learning Machine for Efficient Online Sequential Classification

Yi-Ta Chen, Yu-Chuan Chuang, and An-Yeu (Andy) Wu

National Taiwan University

20. (S0148) Design and Implementation of SAE J1939 Heavy-Duty (HD) Vehicle Diagnosis System

Sheng-Jhu Luo, B. V. P. Prasad, and Jing-Jou Tang

Southern Taiwan University of Science and Technology

21. (S0153) Blind Spot Detection and Door Open Alarm System

Ching-Lung Su and Gu-Ming Zhang

National Yunlin University of Science and Technology

22. (S0157) Event-driven memory circuit for spike-time dependent learning

Jie-An You and Hsin Chen

National Tsing-Hua University

23. (S0165) Massively parallel Distributed Computing Platform for Genomic Range-Join operation

Aman Sinha and Bo-Cheng Lai

National Chiao Tung University

24. (S0179) A Thin-film Supercapacitor for Smart Contact Lens Applications

Jin-Chern Chiou, Cheng-En Shieh, Kuan-Ting Yeh, Cheng-Yu Hsu, and Shun-Hsi Hsu

National Chiao Tung University

25. (S0180) A Smart Single-Sensor Device for Instantaneously Monitoring Lower Limb Exercises

Yan-Ping Chang (1), Teng-Chia Wang (1), Chun-Jui Chen (1), Chia-Chun Lin (1), Yung-Chih Chen (2), and
Chun-Yao Wang (1)

(1) National Tsing Hua University and (2) Yuan Ze University

26. (S0183) A Digital Twin for Fire Response System Simulation

Kuan-Ting Yeh and Pei-Hsuan Tsai

National Cheng Kung University

27. (S0196) A Cost-Effective Bit-Level Sorting-Free Two-Dimensional Median Filter Design

Tong-Yu Hsieh, Yu-Chun Chen, and Kuei-Szu Huang

National Sun Yat-sen University

28. (S0198) Thermal Mapping of Systolic Array Based Accelerator for Three-Dimensional Multiple

Convolution Neural Network Application

Shu-Yen Lin, Chun-Kuan Tsai, and Yu-Hsuan Lee

Yuan Ze University

29. (S0203) On-Display Fingerprint Orientation Field Enhancement by Adaptive Block Size and Neighboring

Correction for IoBT

Huei-Ming Wu and Pei-Yung Hsiao

National University of Kaohsiung

30. (S0205) Design of Leather Defects AOI System for Shoe Industry

Kuei-Chung Chang, Jun-Xian Lee, Xin-Yu Chen, and Hong-Yi Chiu

Feng Chia University

Session Poster 4 (8/9 Fri. 10:20 – 11:20)

Room: 7F 交誼廳

1. (S0004) A 4.5 – 6.7 GHz CMOS Inverter-Based Low-Noise Amplifier with Dual-Path Transformer-Feedback

Ho-Chun Chang, Hong-Yu Chen, Hong-Shen Chen, and Jenny Yi-Chun Liu

National Tsing Hua University

2. (S0023) Error-Resilient Neuromorphic RRAM

Yu-Teng Chang, Dong-Ying Wu, Jing Huang, Jia-Cheng Jhang, and Tsung-Chu Huang

National Changhua University of Education

3. (S0055) Fence-Region Aware Multiple-Row Height Cell Placement Approach

Jai-Ming Lin, Yi-Wen Wang, Wei-Shin Lin, and Jia-Jian Chen

National Cheng Kung University

4. (S0068) A CMOS Salinity Difference to Frequency Converter with Auto-Sensitivity Selection Circuits for

Applications in Aquaculture

Cheng-Ta Chiang, Tsung-Yuan Chen, and Yi-Ting Wu

National Chia Yi University

5. (S0069) A Wide-Range Sugar Concentration to Duty Cycle Converter with Scaling Circuits for Detecting

Sugar Concentration Applications

Cheng-Ta Chiang, Lu-Shen Shie, and Bin-Hong Wang

National Chia Yi University

6. (S0077) A Low-Jitter Fast-Locking All-Digital PLL with Dynamic Loop Gain Control and Phase

Self-Alignment Technique

Yu-Lung Lo (1), Hsi-Hua Wang (1), Wei-Han Song (1), and Wei-Bin Yang (2)

(1) National Kaohsiung Normal University and (2) Tamkang University

7. (S0087) A 10-GHz All-Digital Frequency Synthesizer with Fast-Locked Detection

Guan-Min Luo and Ching-Yuan Yang

National Chung Hsing University

8. (S0110) A 2.7-Gb/s D/PLL-Based Clock and Data Recovery Circuit

You-Sheng Lin, Miao-Shan Li, and Ching-Yuan Yang

National Chung Hsing University

9. (S0111) SSC Type-3 PLL-Based Clock and Data Recovery

Miao-Shan Li, Yen-Kuei Lu, Ching-Yuan Yang, and Chin-Lung Lin

National Chung Hsing University

10. (S0120) CMOS MEMS Inductive Accelerometer with Digital Output

Hsuan-Wu Liu, Shih-Hsuan Hsu, Cheng-Yen Lin, Yi Chiu, and Hao-Chiao Hong

National Chiao Tung University

11. (S0125) Piezoelectric Accelerometer Readout Circuit and SAR ADC

Rui-Tong Weng and Soon-Jyh Chang

National Cheng Kung University

12. (S0130) Design of Low Temperature Sensitivity CMOS Relaxation Oscillator

Truong Manh Cuong and Poki Chen

National Taiwan University of Science and Technology

13. (S0131) 900-MHz and 2.4-GHz Wireless Power Transfer Rectifiers for IoT applications

Yuen-Sum Ng, Yi-Ju Yang, and Yi-Jan Emery Chen

National Taiwan University

14. (S0132) Asynchronous Digital Low-Dropout Regulator for Ultra-Low Voltage Applications

Wei-Bin Yang and Shu-Yu Ku

Tamkang University

15. (S0136) A CMOS-MEMS PIRANI GAUGE WITH WIDE SENSING RANGE

You-Wei Pai, Fan-Hao Su, and Chung-Nan Chen

National Kaohsiung University of Sciences and Technology

16. (S0144) A SP-Based Analog Layout Migration Engine for Placement Preservation

Zi-Jun Lin (1), Chih-Hsin Yang (1), Hao-Yu Chi (2), Chien-Nan Jimmy Liu (2), and Jing-Yang Jou (1)

(1) National Central University and (2) National Chiao Tung University

17. (S0145) A 3-dBm Output Power 47-GHz Current-Reused CMOS VCO with Spontaneous

Transconductance Match Technique

San-Hsien Liu and Huey-Ru Chuang

National Cheng Kung University

18. (S0152) Low-Voltage Cascode Current Mirror with High Output Impedance

You-Cyuan Wei, Po-Cheng Ke, Geng-Xiang Lin, and Hung-Yu Wang

National Kaohsiung University of Science and Technology

19. (S0166) Design, Fabrication and Analysis of a Sensing Pixel for Thermopile Array

Zhu-An Guo, Ya-Han Yang, and Chung-Nan Chen

National Kaohsiung University of Sciences and Technolog

20. (S0167) The Micro Display on Smart Contact Lens through 900MHz RFID Wireless Powering

Cheng-Wei Tsai, Shin-Ho Wu, Mang Ou-Yang, Herming Chiueh, and Jin-Chern Chiou

National Chiao Tung University

21. (S0169) Design of High Linearity Wideband Amplifier in HBT Technology

Chien-Hui Tsai and Chien-Nan Kuo

National Chiao Tung University

22. (S0184) A 10Gb/s Full Rate PAM-4 Clock and Data Recovery with Symmetric Edge Detector

Wei-Ting Liu, Yu-Yen Ke, and Kuo-Hsing Cheng

National Central University

23. (S0186) Generalized Via Pattern Awareness Substrate Routing Framework for Fine Pitch Ball Grid Array

Chi-An Pan, Jun-Sheng Wu, and Yi-Yu Liu

National Taiwan University of Science and Technology

24. (S0188) IR-aware Multiple Power Net Routing

Shuo-Hui Wang, Guan-Hong Liou, Yen-Yu Su, Wei-Da Wang, and Mark Po-Hung Lin

National Chung Cheng University

25. (S0190) A 10 Gb/s Full-Rate Adaptive PAM-4 Equalizer with High-Pass Filter Compensation

Zi-Yi Chen, Yuan Wang, and Kuo-Hsing Cheng

National Central University

26. (S0191) Classifying Analog and Digital Sub-Circuits in Mixed-Signal Design

Guan-Hong Liou, Jun-Jie Zhao, Cheng-Yao Liu, and Mark Po-Hung Lin

National Chung Cheng University

27. (S0195) A 6th-Order Current-Mode Gm-C Bandpass Filter with Correlated Ring Oscillator Calibrating Scheme

Hsin-Liang Chen (1), Chun-Kai Fu (2), and Jen-Shiun Chiang (2)

(1) Chinese Culture University and (2) Tamkang University

28. (S0199) Speeding up Fault Simulation with Graphic Processing Units by Using 3D Parallelism

Hua-Ren Li and Hsing-Chung Liang

Chung Yuan Christian University

29. (S0215) A Buffer Circuit for the Interface of RF and Baseband System

Zhi-Sheng Zhang, Tzu-Hao Lin, and Hung-Wen Lin

Yuan Ze University

30. (S0216) A Test Method for Estimating the Nonlinearity of an Amplifier

Kun-Chih Wu, Chuang-Wei Chueh, and Hao-Chiao Hong

National Chiao Tung University