

Design Contest Award Candidates

A Low-Power Dual-Core Motion Estimation Chip Design and Implementation for a Wireless Panoramic Endoscopy

*Tsung-Yi Wu and Ching-Hwa Cheng
Feng Chia University*

An Atomic-Aware Design to Maximize Energy Utilization on NVP-Based Self-Powered Sensor Systems

*Chih-Kai Kang¹, Chun-Han Lin² and Pi-Cheng Hsiu¹
¹Academia Sinica, ²National Taiwan Normal University*

High Energy-Efficient Reconfigurable Hybrid Neural Network Processor for Deep Learning Applications

*Shouyi Yin, Peng Ouyang, Shibin Tang, Fengbin Tu, Xiudong Li, Leibo Liu and Shaojun Wei
Tsinghua University*

An Ultra-Low Power 169-nA 32.768-kHz Fractional-N PLL

*Chun-Yu Lin, Tun-Ju Wang, Tzu-Hsuan Liu and Tsung-Hsien Lin
National Taiwan University*

TeleProbe: Zero-Power Contactless Probing for Implantable Medical Devices

*Woo Suk Lee¹, Younghyun Kim² and Vijay Raghunathan³
¹Microsoft, ²University of Wisconsin–Madison, ³Purdue University*

Retention State-Aware Energy Management for Efficient Nonvolatile Processors

*Dongqin Zhou¹, Weiwen Chen¹, Xin Shi², Mengying Zhao³ and Keni Qiu^{1,4}
¹Capital Normal University, ²Tsinghua University, ³Shandong University, ⁴Beijing Advanced Innovation Center for Imaging Technology*

1.4-mW, 56-GHz Arithmetic Logic Unit Based on Superconductor Single-Flux-Quantum Logic Circuit

*Masamitsu Tanaka¹, Ryo Sato¹, Yuki Hatanaka¹, Yuichiro Matsui¹, Hiroyuki Akaike¹, Akira Fujimaki¹, Koki Ishida², Takatsugu Ono² and Koji Inoue²
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A Reconfigurable Building Block for Thermoelectric Generator Energy Harvesting under Spatial Temperature Variations

*Jaemin Kim¹, Naehyuck Chang², Donkyu Baek², Youngil Kim² and Donghwa Shin³
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