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*Universidade de Lisboa, Portugal*

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*Massachusetts Institute of Technology, United States*

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<sup>1</sup>*State Key Laboratory of ASIC and System, Fudan University, China;*

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<sup>1</sup>*University of Southern California, United States;* <sup>2</sup>*University of Waterloo, Canada*

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**Date:** Wednesday, September 13, 2023

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<sup>1</sup>Massachusetts Institute of Technology, United States; <sup>2</sup>Northeastern University, United States

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<sup>1</sup>Institute of Semiconductors, Chinese Academy of Sciences, China;

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<sup>1</sup>*University of Texas at Austin, United States;* <sup>2</sup>*North Carolina State University, United States*

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<sup>1</sup>*Georgia Institute of Technology, United States;* <sup>2</sup>*Kennesaw State University, United States*

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**Date:** Wednesday, September 13, 2023

**Room:** Room 5.A

**Chair(s):** Tom Van Breussegem, ICsense  
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<sup>1</sup>National Yang Ming Chiao Tung University, Taiwan; <sup>2</sup>Chip-GaN Power Semiconductor Corporation, Taiwan; <sup>3</sup>Realtek Semiconductor Corp, Taiwan

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<sup>1</sup>Peking University, China; <sup>2</sup>The Hong Kong University of Science and Technology, China

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<sup>1</sup>Osaka University, Japan; <sup>2</sup>National Yang Ming Chiao Tung University, Taiwan

## **ESSCIRC Keynote 3: Ángel Rodríguez-Vázquez**

**Date:** Thursday, September 14, 2023

**Room:** Audit. I

**Chair(s):** José de La Rosa, IMSE-CNM, Universidad de Sevilla

### **Chip Architectures for Efficient Analog-to-Information Image Analysis Using Out-the-Box Processing Concepts**

Ángel Rodríguez-Vázquez

*Universidad de Sevilla, Spain*

## Innovations in High-Speed A/D Converters

**Date:** Thursday, September 14, 2023

**Room:** Audit. II

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<sup>3</sup>East China Normal University, China

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**Date:** Thursday, September 14, 2023  
**Room:** Audit. III  
**Chair(s):** Alexander Fish, *Bar Ilan University*  
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<sup>1</sup>*Southern University of Science and Technology, China*; <sup>2</sup>*Hong Kong University of Science and Technology, China*; <sup>3</sup>*AI Chip Center for Emerging Smart System, Hong Kong*

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**Chair(s):** Paul Walsh, *Infineon Technologies*  
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<sup>1</sup>National Yang Ming Chiao Tung University, Taiwan; <sup>2</sup>National Taiwan University, Taiwan

## **VCSEL Transmitters**

**Date:** Thursday, September 14, 2023

**Room:** Room 5.A

**Chair(s):** Filip Tavernier, *KU Leuven*  
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<sup>1</sup>Technische Universität Berlin, Germany; <sup>2</sup>VI Systems GmbH, Germany

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<sup>1</sup>Hong Kong University of Science and Technology, Hong Kong;

<sup>2</sup>Southern University of Science and Technology, China

## **Advanced CMOS LNA Techniques**

**Date:** Thursday, September 14, 2023

**Room:** Room 5.B

**Chair(s):** Eric Klumperink, *University of Twente*  
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**Room:** Audit. II

**Chair(s):** Mattias Palm, *Ericsson*  
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<sup>1</sup>IMEC, Belgium; <sup>2</sup>Vrije Universiteit Brussel, Belgium

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<sup>1</sup>University of Ulm, Germany; <sup>2</sup>Robert Bosch GmbH, Germany; <sup>3</sup>EMCE GmbH, Germany

## A-SSCC Special Session

**Date:** Thursday, September 14, 2023

**Room:** Audit. III

**Chair(s):** Andreia Cathelin, STMicroelectronics  
Minoru Fuji, Hiroshima University

### **A Process-Scalable Ultra-Low-Voltage 180kHz Sleep Timer with Time-Domain Amplifier and Switch-Less**

**Resistance Multiplier .....** **Available on Xplore**

Chongsoo Jung<sup>1</sup>, Hoyong Seong<sup>1</sup>, Injun Choi<sup>1</sup>, Sohmyung Ha<sup>1</sup>, Minkyu Je<sup>1</sup>

<sup>1</sup>Korea Advanced Institute of Science and Technology, Korea;

<sup>2</sup>New York University Abu Dhabi, U.A.E.

### **A 28nm Hybrid 2TIR RRAM Computing-in-Memory**

**Macro for Energy-Efficient AI Edge Inference .....** **Available on Xplore**

Wang Ye, Linfang Wang, Zhidao Zhou, Junjie An, Weizeng Li, Hanghang Gao, Xiaoxin Xu,

Jinshan Yue, Jianguo Yang, Dashan Shang, Chunmeng Dou, Qi Liu, Ming Liu

*Institute of Microelectronics of the Chinese Academy of Sciences, China*

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**Enhancement .....** **Available on Xplore**

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<sup>1</sup>National Yang Ming Chiao Tung University, Taiwan; <sup>2</sup>Realtek Semiconductor Corp, Taiwan

### **SNPU: Always-On 63.2μW Face Recognition Spike Domain Convolutional Neural Network Processor with Spike Train Decomposition and Shift-and-Accumulation Unit .....** **Available on Xplore**

Snagyeob Kim, Sangjin Kim, Soyeon Um, Soyeon Kim, Juhyoung Lee, Hoi-Jun Yoo

*Korea Advanced Institute of Science and Technology, Korea*

### **A 3.07mW 30MHz-BW 73.5dB-SNDR Time-Interleaved Noise-Shaping SAR ADC with 2nd-Order Error-Feedforward and Redundancy-Bit Reduction .....** **Available on Xplore**

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<sup>1</sup>Amicro Semiconductor Co. Ltd, China; <sup>2</sup>Shanghai Jiao Tong University, China;

<sup>3</sup>University of Macau, Macau

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**Date:** Thursday, September 14, 2023

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**Chair(s):** Antoine Frappé, *University of Lille, CNRS*

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<sup>1</sup>Columbia University, United States; <sup>2</sup>Intel Corporation, United States

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**Date:** Thursday, September 14, 2023  
**Room:** Room 5.A  
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<sup>1</sup>Leibniz Universität Hannover, Germany; <sup>2</sup>Infineon Technologies Austria AG, Austria

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<sup>1</sup>National Yang Ming Chiao Tung University, Taiwan; <sup>2</sup>Chip-GaN Power Semiconductor Corporation, Taiwan; <sup>3</sup>Realtek Semiconductor Corp, Taiwan

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<sup>1</sup>Politecnico di Milano, Italy; <sup>2</sup>STMicroelectronics, Italy

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<sup>1</sup>Columbia University, United States; <sup>2</sup>Intel Corporation, United States;

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<sup>1</sup>*University of Michigan, United States;* <sup>2</sup>*STMicroelectronics, France*

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**Room:** Audit. I

**Chair(s):** Nuno Paulino, *Universidade NOVA de Lisboa*

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**Room:** Audit. III

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<sup>1</sup>Stanford University, United States; <sup>2</sup>Taiwan Semiconductor Manufacturing Company Limited, Taiwan

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**Date:** Thursday, September 14, 2023

**Room:** Room 5.A

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<sup>1</sup>CEA-Leti, Université Grenoble Alpes, France; <sup>2</sup>NXP Semiconductors, France

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