

Dana Kim

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EDUCATION

- 2023 – Present Master of Science Candidate in Electronic Engineering
Seoul National University of Science and Technology, Seoul, South Korea
- 2019 – 2023 Bachelor of Science in Electronic and IT Media Engineering
Seoul National University of Science and Technology, Seoul, South Korea

RESEARCH EXPERIENCES

Research Assistant, Dept. of Electronic Engineering, Seoul National University of Science and Technology. Advisor: Jae-Won Nam (2022 ~ Present)

- Low-power and High-resolution Analog-to-Digital Converter (ADC)
- Sensor read-out integrated circuit (ROIC)
- Silicon Photodetector for Hardware Security

Tape-out

- 2023.02. Samsung 28nm Bulk CMOS, SRAM PUF (2.0× 1.4 mm²): Silicon Photodiode.
- 2023.05. NNFC 180nm Bulk CMOS, CMOS Image Sensor (CIS) ROIC (4.0× 4.0 mm²).
- 2023.05. TSMC 180nm BCD, SRAM based PUF circuits (1.0× 1.1 mm²).
- 2023.07. Samsung 28nm Bulk CMOS, 8-bit 1GS/s Domino ADC (4.0× 4.0 mm²).
- 2023.09. TSMC 65nm Bulk CMOS, TI noise-shaped DAC (4.0× 4.0 mm²).

LIST OF PUBLICATIONS

- **D. Kim**, J.-P. Hong, J. Lee and J.-W. Nam, “High-speed light detection sensor for hardware security in standard CMOS technology,” *IEEE Trans. Circuits Syst. II, Exp. Briefs*, vol. 70, no. 10, pp. 3917-3921, Jun. 2023.
- S. -J. Lee, **D. Kim**, Y. Lim, S. -J. Byun, and Y. H. Lee, “Implementation of self-driving cars using communication with traffic lights,” *Winter annual Conf. of KICS*, Feb. 2023.
- **D. Kim**, J.-P. Hong, and J.-W. Nam, “Analysis of silicon photodiodes,” *International Conf. on Electronics and Communication (ICEIC)*, Feb. 2023.
- **D. Kim**, H. Yoo, and J.-W. Nam, “Implementation of low-cost linear CMOS temperature sensor for biomedical application,” *Summer annual Conf. of IEIE*, Jun. 2022.

TEACHING EXPERIENCE

Teaching Assistant, Dept. of Electronic Engineering, Seoultech.

- Integrated Circuit, Spring 2023 and Spring 2024.
- Electronic Circuit, Fall 2022 and Spring 2023.

TRAINING ACTIVITIES

- 2023.08.23-08.25, [IDEC Education] PCB design using KiCAD
- 2023.08.21-08.24, [IDEC Education] Understanding SAR ADCs
- 2023.08.17-08.18, [IDEC Education] Reliability of analog and mixed-signal circuits
- 2023.08.10-08.11, [IDEC Education] Fundamentals of semiconductor process and circuit for full custom
IC layout design
- 2023.05.15-05.19, [IDEC Researcher Education] Cell-based chip design flow education
- 2023.02.22-02.23, [IDEC Education] Power semiconductor device with TCAD simulation
- 2023.01.18-01-19, [Synopsys] Synopsys TCAD for semiconductor process/device simulation
- 2022.02.17-02.17, [Cadence] Innovus Implementation System
- 2021.12.23-12.23, [IDEC Education] MOSFET device design with TCAD software
- 2021.12.05-12.05, [IDEC Education] Semiconductor manufacturing process