Zou JunJun Email: zoujim.tsinghua@gmail.com

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EDUCATION

Tsinghua University

Beijing, China

M.E. in Instrument and Meter Engineering, advised by Prof. Wei Qi (GPA :3.85/4.0)

Sept. 2019 - June 2022

Tsinghua University

Beijing, China

B.E. in Measurement, Control and Instruments (GPA :87/100)

Sept. 2014 - June 2018

RESEARCH EXPERIENCE

Low-noise Bandgap Voltage Reference (BGR) for MEMS Sensors

Tsinghua University

Taped-out in 180nm BCD process

Aug. 2020 - June 2022

- Proposed a novel low-noise BGR topology with second-order temperature compensation
- \circ Implemented theoretical analysis of noise transfer function and chip measurements to verify low-noise performance
- o Accomplished Chip-Sensor Co-measurements and verified BGR's 1/f noise linearly affects MEMS sensors' BI

Continuous-Time Bandpass Sigma-Delta ADC for MEMS Sensors

Tsinghua University

Taped-out in 180nm CMOS process

Sept. 2019 - June 2020

- o Proposed a continuous-time sigma-delta modulator with a 3-bit flash ADC and a second-order R-C loop filter
- o Added a pseudo-PLL circuit to alleviate PVT variation's effect on modulator's notch frequency

PUBLICATIONS

- JunJun Zou, Qi Wei, Chunge Ju, et al. A 0.82 Vrms ultralow 1/f noise bandgap reference for a MEMS gyroscope, in Microsystem Nanoengineering ,2023
- JunJun Zou, Qi Wei, Bin Zhou, et al. A 442.1 nVpp, 13.07 ppm/°C Ultra-Low Noise Bandgap Reference Circuit in 180 nm BCD Process, in IEEE International Symposium on Circuits and Systems(ISCAS), 2021
- Chunge Ju, Xiang Li, **JunJun Zou**, et al. An Auto-Tuning Continuous-Time Bandpass Sigma-Delta Modulator with Signal Observation for MEMS Gyroscope Readout Systems, in **Sensors**, 2020

Industry Experience

Joulwatt Microelectronics

Shanghai, China

Analog IC design engineer

June 2023 - Present

- Transistor-level circuit design and simulation (Dual-phase PLL-based ACOT Buck Converter)
- Architect, implement and analyze trade-offs of circuits; Oversee and support layout (180nm BCD process)

Zeku Technology

Shanghai, China

Analog IC design engineer

Aug. 2022 - May 2023

- Transistor-level circuit design and simulation (Low Power Fast-Transient Low-Dropout Regulator/VCO)
- Architect, implement and analyze trade-offs of circuits; Oversee and support layout (90nm CMOS process)

Honor And Awards

- Graduate: Outstanding Graduates from Tsinghua University (2022), National Scholarship (2021), First Comprehensive Excellent Scholarship from Tsinghua University/Samsung Scholarship (2020)
- Undergraduate: Academic Excellent Scholarship from Tsinghua University (2016/2017), National Inspirational Scholarship (2016)

SKILLS AND LANGUAGE

- Software/Hardware: Cadence, Verilog, Matlab, C/C++, SIMPLIS, Vivado, FPGA
- Language: Mandarin, English (Tofel: 100, best score 103)