

# THESES AWARDED

## Ph.D. (31)

### Chao FAN

Power-Efficient Ultra-High-Speed Communication Circuit Techniques in Nanoscale CMOS, 2020 Lecturer, Xi'an Jiaotong University

### Mingqiang GUO

Mismatch Calibration Techniques for Low-Power High-Speed Time-Interleaved ADC, 2020 UM Macao Post-Doctoral Fellowship (UMPF), University of Macau

### Wenning JIANG

High Performance Gigahertz Nyquist ADC Designs, 2020 Post-Doctoral Fellow, University of Macau

### Mingzhong LI

Patterned Surface Wettability and Advanced Droplet Manipulation Techniques for Disease Diagnostics using Digital Microfluidics, 2020 Post-Doctoral Fellow, University of Macau

### Xiaofei LI

Design of Radio Frequency Wireless Power Transfer Circuits, 2020 Post-Doctoral Fellow, Zhuhai UM Science & Technology Research Institute

### Jie LIN

Single Stage Regulating Rectifiers for Wireless Power Transfer, 2020 Senior Engineer, Hisilicon

### Fangyu MAO

Design and Analysis of Near-Field Wireless Power Transfer Circuits and Systems, 2020 UM Macao Post-Doctoral Fellowship (UMPF), University of Macau

### Panke WANG

A Real-time Neural Spike Sorting System and Its Application on Neural Decoding, 2020 Assistant Professor, Guangzhou University of Chinese Medicine

### Wen-Liang ZENG

Design, Control and Analysis of Integrated DC-DC Converters for Low Power Applications, 2020 Post-Doctoral Fellow, Microelectronics Research Center of the Zhuhai UM Science & Technology Research Institute

### Liang QI

Low-Power Cascaded Delta-Sigma Modulator for Wideband Telecommunication Applications, 2019 Assistant Professor, Shanghai Jiaotong University

### Wei WANG

Design of Low-Power Mega to Hundred Mega Hz Bandwidth CTDSM, 2019 Engineer, Hisilicon

### Biao WANG

Resolution Enhancement Techniques for Multi-Bit Incremental ADC, 2019 Engineer, Hisilicon

### Shiheng YANG

Power-Efficient Analog and Digital Frequency Synthesizers in Nanoscale CMOS, 2019 Professor, University of Electronic Science and Technology of China

### Xiaofeng YANG

Low power and low phase noise phase-locked loop, oscillators and clock receiver design, 2019 CFO, Reexen Technology Co.,Ltd

### Haidong YI

Ultra-Low-Voltage Analog and RF Circuit Techniques for Short-Range Wireless Radios in Nanoscale CMOS, 2019 Engineer, Hisilicon/Huawei

### Shuang ZHANG

Galvanic Coupling Human Body Communication Channel Modeling for Medical Implantable Devices Communication (MIDC), 2019 Lecturer, Neijing Normal University

### Da FENG

Polyphase Decomposition for Sigma-Delta A/D Converters, 2018 Civil Servant, Macau

### Yang JIANG

Design of Fully Integrated Fined-Grained Switched-Capacitor DC-DC Topologies in Bulk CMOS, 2018 Assistant Professor, University of Macau

### Jianwei LIU

Design Techniques for Energy Efficient ADCs, 2018 Senior Design Engineer, United Microelectronics Center, Chongqing, China

### Xingqiang PENG

Ultra-Low-Power Wireless Transmitter Circuit Techniques for Internet-of-Things Applications, 2018 Engineer, Hisilicon/Huawei

### Jiujia WANG

Practical Modeling of Membrane Deflection for Collapse Mode CMUT through Model Verification, 2018 Research Assistant Professor, University of Macau

### Dezhi XING

Advanced Techniques in Analog to Digital Converters, 2018 Senior Analog Design Engineer, Chongqing Jixin Microelectronics Tech Co. Chongqing, China

# THESES AWARDED

## Ph.D. (31) (CONTINUED)

### Tantan ZHANG

Nano-Watt Class CMOS Interface Circuits for Wireless Sensor Nodes, 2018  
Research Scientist, A\*Star Singapore

### Chak-Fong CHEANG

Digital Correction Techniques for I/Q Mismatch, LO Feedthrough and Distortion in Wideband Transmitters, 2017  
Engineer, Mediatek

### Zhiyuan CHEN

Efficient Power Management Design for Energy Harvesting Biomedical Applications, 2017  
Associate Professor, Fudan University

### Changhao CHEN

Circuits and Noise modelling for extracellular electrophysiology recording and optogenetic neural manipulation, 2017  
Post-Doctoral Fellow, University of Macau

### Cheng DONG

Electronic-Automated Digital Microfluidic System for Multi-Analysis, 2017  
CFO, DigiFluidic

### Arshad Hussain

High-Resolution Passive and Active-Passive Switched-Capacitor Delta-Sigma Modulator Design Techniques in Nanoscale CMOS, 2017  
Assistant Professor, Quaid-i-Azam University, Pakistan

### Gengzhen QI

SAW-Less Multiband TDD/FDD Transceiver Front-Ends Using Gain-Boosted N-path Techniques, 2017  
Associate Professor, Sun Yat-Sen University

### Wei-Han YU

Power-Efficient and Wideband WLAN Transmitter Techniques in Nanoscale CMOS, 2017  
Lecturer/Macau Fellow, University of Macau

### Yuanyu YU

Design and Characterization of Embossed Membrane CMUTs for Improving Output Pressure, 2017  
Post-Doctoral Fellow, University of Macau

## M.Sc. (37)

### Chi-Wa CHAO

Study and Design of Quasi-Proportional-Resonant Controllers for Grid-Connected Inverter, 2020  
Assistant Engineer, New Vector Engineering Design & Consultancy Co. Ltd. Macau, China

### Shaocan FAN

Effective Heart Sound Segmentation Using Deep Neural Networks for Valvular Heart Disease Diagnosis, 2020  
Ph.D. Student, Sun Yat Sen University

### Haoyu GONG

Oversampling Data Converter with LDO-free Power Management System, 2020  
Ph.D. student, University of Macau

### Ka-Chon LEI

Fully Integrated High Voltage Pulse Driver Using Switched-Capacitor Voltage Multiplier and Synchronous Charge Compensation in 65nm CMOS, 2020  
Engineer, AkroStar

### Hou-Man LEONG

Fully Integrated High Voltage Pulse Driver with Multi-band Pulse-Frequency Modulation in 65nm CMOS, 2020  
Engineer, AkroStar

### Kejin LI

Low Power ECG SAR ADC Design and Consideration, 2020  
Research Assistant, ZUMRI

### Hanyu WANG

LDO-Free Power Management System for Energy-Harvesting Data Acquisition Applications, 2020  
Analog Design Engineer, AMicro Co., Zhuhai, China

### Chuanqi WEI

Low Complexity Template-Model-Based Motion Vector Motion Detection for CMOS Image Sensor, 2020  
Engineer, Cambrian

### Tai ZHANG

A Switched-Capacitor DC-DC Converter with Adaptive Single-Boundary Hysteretic Control, 2020  
Engineer, Thinkplus Semiconductor, Shenzhen

### Jianyang DENG

Instantaneous Power Quality Indices Detection Under Frequency Deviated Environment, 2019  
IT Technical Specialist, Macau CTM, Macau, China

### Xinyi GE

Analysis of Jitter in Bang-Bang Clock and Data Recovery Circuit, 2019  
Engineer, Qualcomm (Shanghai) Ltd.

### Yibo HAN

An automatic multi-channel cell impedance-based measurement system for real-time cell feature monitoring, 2019

### Xuwei LEI

Low Power and Low Resolution Phase Domain ADC Design for FSK/PSK Demodulation, 2019  
Engineer, Shanghai Awinic Technology Co.,Ltd

### Jixuan LI

Design of Battery Management System for Fast and Safe Charging, 2019  
Ph.D. student, University of Macau

# THESES AWARDED

## M.Sc. (37) (CONTINUED)

### Junhao LIANG

On the study of Programmable Continuous Time Sigma Delta Modulator for Implantable ECG Acquisition Circuit Application, 2019  
Analog Design Engineer, AMicro Co., Zhuhai, China

### Ziyang LIN

Design of KY Converter with Constant ON-Time Control under DCM Operation, 2019  
Data Analyst, Kong Seng Paging Ltd. Macau, Macau, China

### Chi-Lon U

An Approach to Real Time Spike Sorting by using Wavelet Packet Transform and Enhanced Growing Neural Gas, 2019  
Engineer, Macau Airport

### Yulun WU

A Switched-Capacitor DC DC Converter with Unequal Duty Cycle for Ripple Reduction and Efficiency Improvement, 2019  
Engineer, Goodix Technology, Shanghai

### Ruping XIAO

Wavelet Transform-Based Ultra-Low Power High Accuracy QRS Detector for Wearable ECG Monitoring Applications, 2019  
Engineer, Nvidia

### Yukun XU

Curvature Compensated BJT-Based Time-Domain CMOS Temperature Sensor Design, 2019  
Engineer, Sino Microelectronics Technology Co. Ltd.

### Yi ZHANG

A Computation Resource Friendly Convolutional Neural Network Engine For EEG-based Emotion Recognition, 2019

### Lei ZHAO

Design of Digital LDO For Fast Transient Response, 2019  
Ph.D. student, Iowa State University, USA

### Baoyi CEN

Switched-Capacitor DC-DC Converter with Fixed Output Spectrum Modulation for Noise-Sensitive IoT Applications, 2018  
Engineer, China Electric Power Equipment and Technology Co., Ltd.

### Zhimin CHEN

Electromagnetic Field Analysis of Low-Magnitude High-Frequency Vibrator with Multiple Plungers, 2018

### Yuanqing HUANG

Design and Analysis of Energy Efficiency Analog and Digital LDO Designs, 2018  
Ph.D. student, University of Texas at Dallas, USA

### Cheng LI

Peripheral Interface Circuitries Analysis for High-Speed and -Resolution SAR ADC, 2018  
Ph.D. student, University of California, Davis

### Jiaji MAO

On the study of Advanced Background Calibration Techniques for High Resolution Split Pipeline Analog to Digital Converter, 2018  
Ph.D. student, University of Macau

### Dapeng SUN

Process Compensated CMOS Temperature Sensor Exploiting Piecewise Base Recombination Current, 2018  
Engineer, Bank of China

### Wai-Hong ZHANG

Low-Offset and Low-Noise Comparators with Calibration Techniques, 2018  
Engineer, Akrostar Macau

### Wenming ZHENG

Analysis, Design and Control of An Integrated Three-Level Buck Converter under DCM Operation, 2018  
Senior System Design Engineer, Injoinic Technology, Zhuhai, China

### Xutong CUI

Rhythm Sequence based on SVD-entropy for Emotion EEG Signal Analysis, 2017

### Xiao JIANG

Reception Performance Enhancement of Capacitive Micromachined Ultrasonic Transducers via Modified Membrane Structures, 2017

### Chon-Hei LEI

Design of 0.18 $\mu$ m 10-bit 10MS/s Successive Approximation Analog-to-Digital Converters for Neural Spikes Acquisition, 2017  
Engineer, CEM

### Xin LIU

Helmholtz Resonant Effect on Air-coupled CMUTs, 2017  
Ph.D. student, University of Macau

### Ziyang LUO

Design of Ultra Low Power Bandgap Voltage References, 2017  
Ph.D. student, University of Texas at Dallas, USA

### Yi-Wei TAN

Study, Design and Control of An Integrated 3-Level Boost Converter, 2017  
Technical Marketing Engineer, Gree Electric Appliances, Inc. of Zhuhai, Zhuhai, China

### Guancheng WANG

Testing signal generation and timing interleaving calibration for ADCs, 2017  
Instructor, Guangdong Ocean University