Jie Lin

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EDUCATION

South University of Science and Technology of China
Department of Electronic and Electrical Engineering
Bachelor of Engineering in Microelectronics, 2012-2016
• GPA 3.35/4.0

PUBLICATIONS AND PATENTS

Conference publications

1. Qijia Cheng, Zhuoteng Peng, **Jie Lin**, Shanshan Li and Fei Wang. "Energy Harvesting from Human Motion for Wearable Devices." 10th IEEE NEMS 2015.
2. **Jie Lin**, Qijia Cheng, Zongdai Liu, Bin Dong, Lingli Jiang, Tianli Duan, Kai Cheng and Hongyu Yu. "Investigation of Trap Behaviors in GaN/AlGaN HEMT and Its Impact on Reliability." 11th International Conference on Nitride Semiconductors (ICNS-11), 2015.
3. **Jie Lin**, Bin Dong, Zongdai Liu, Lingli Jiang and Hongyu Yu. "Study on traps of GaN Material based on Transient Capacitance Method." 2015' National Novel Semiconductor Power Device and Application Technology Seminar (Paper in Chinese).
4. Bin Dong, **Jie Lin**, Zongdai Liu, Lingli Jiang and Hongyu Yu. "Impact of Gate Transient Voltage on Surface Traps of GaN HEMT" 2015' National New Semiconductor Power Device and Application Technology Seminar (Paper in Chinese).
5. **Jie Lin**, Bin Dong, Zongdai Liu, Lingli Jiang, and Hongyu Yu. "Characteristics of Traps via Transient Capacitance Method in AlGaN/GaN MIS-HEMTs." The 2016 International Workshop on Wide Bandgap Semiconductor Power Electronics (IWWSPE2016)
6. Bin Dong, **Jie Lin**, Zongdai Liu, Lingli Jiang, and Hongyu Yu. "Impact of gate pulse on transient gate capacitance variance in AlGaN/GaN MIS-HEMT." The 2016 International Workshop on Wide Bandgap Semiconductor Power Electronics (IWWSPE2016)
7. **Jie Lin**, Bin Dong, Ning Wang, Zongdai Liu, Lingli Jiang, Kai Cheng and Hongyu Yu. "Quantitative Characteristics of Traps in AlGaNGaN MIS-HEMT via Transient Capacitance Measurement." 2016 International Conference on Advanced Electronic Science and Technology (AEST2016)
8. Bin Dong, **Jie Lin**, Ning Wang, Lingli Jiang, Zongdai Liu, Kai Cheng, and Hongyu Yu. "Investigation of gate pulse induced interface trap behaviours and its relationship with threshold voltage instability in Si based AlGaNGaN MIS-HEMTs." 2016 International Conference on Advanced Electronic Science and Technology (AEST2016)
9. Bin Dong, Jie Lin, Ning Wang, Ling-li Jiang, Zong-dai Liu, Kai Cheng, and

Hong-yu Yu. “Characterization of trap behaviors in AlGaN/GaN MIS-HEMT via Transient Capacitance Measurement.” 13th IEEE International Conference on Solid-State and Integrated Circuit Technology (ICSICT), 2016.

Patents

1. Pengkun Xia, Bin Dong, Hongyu Yu, **Jie Lin**, Qijia Chen, Lingli Jiang, Zongdai Liu, "A Kind of Power Adapter", China patent, ZL 2015 2 0256234.2.

AWARDS

- Overall Champion of British Council China Challenge in Electronic Engineering, Beijing, China — Dec. 2014
- The Chu Chuang Scholarship, SUSTC — 2012-2016
- The Scholarship of Excellent Freshman, SUSTC — Sept. 2012

RESEARCH AND PROJECTS

Reliability of AlGaN/GaN HEMT — 2015 to Graduation

Investigate trap behaviors in HEMT by ourself-designd DLTS (Deep level transient spectrum) system.

My contribution: Project leader, DLTS system design & build, experiments design & manage, data collection.

Funded project: GaN based Power Adapter — Sept. 2014-2015

Funding: 2014 Undergraduate Training Programs for Innovation, Guangdong Province Government.

Develop small volume, high performance power adapters for based on GaN power device.

My contribution: Literature review, circuit design, device simulation.

AlGaN/GaN HEMT Device simulation — Sept. 2014-2015

Investigate the performance of AlGaN/GaN HEMT device with novel structure. The simulation consists of process simulation and device simulation.

My contribution: Project leader, literature review, device structure design & simulation.

Energy Harvester for Wearable Devices — May-Nov. 2014

Develop MEMS piezoelectric energy harvesters for wearable devices.

My contribution: Product making & performance testing, English presentation.

Nano-structure simulation on light absorption — 2013-2014

Study the impact of different curvature of hemispherical nanostructure on visible and near-infrared light absorption. The simulation consists of optical simulation and electrical simulation.

My contribution: Data collection, optical simulation.

EXPERIENCE AND

Research Assistant

Activities

Prof. Hongyu Yu Group, Shenzhen Key Laboratory of 3rd Generation Semiconductor Devices — 2013-Nov. 2015

Prof. Chenchang Zhan Group, EEIC Laboratory — Nov. 2015-Graduation

Internship — Jan.-Feb. 2015

China Aerospace Science & Industry Shenzhen (Group) Co., Ltd.

Participate in developing feeder terminal unit (FTU) at department of R&D.

School Basketball Team member, SUSTC — 2012-2014

Top 5 of University Town Basketball competition.

Basic Research Skills

- Simulation and IC Design
  Silvaco TCAD, HFSS, Comsol; Cadence, Verilog HDL.
- Programming & Utilities
  C, Java, Origin, Matlab, Office suite, etc.
- Lab
  DLTS, 4200SCS, SEM, lithography, ellipsometer, nanoimprint, etc.