

YALIANG ZHENG

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EDUCATION:

Huazhong University of Science and Technology (HUST) **Wuhan, China**
School of Optical and Electronic Information(OEI)
B.Eng. in *Microelectronic Science and Engineering* Sept.2014 – Jun.2018(Expected)
GPA: 3.78/4.0 Cumulative Average:85.44
Ranking: 10/50
Relevant Coursework: Quantum Mechanics, Solid State Physics, The Physics of Semiconductors,
Microelectronic Materials, Microelectronic Process.

STANDARD TESTS:

TOEFL

GRE

RESEARCH EXPERIENCE:

Photonics Summer School **Hong Kong, China**
The Hongkong Polytechnic University Jul. 2017

- Lectures about optical fiber communication and microstructure devices and sensors.
- Visit Optical Fiber Sensor Lab and Microfabrication Lab.

Measurement of The SiPM(Silicon Photomultiplier) Characteristics **Wuhan, China**
Digital PET (Positron Emission Tomography) Lab Oct. 2016 - Present

- Consider avalanche ionization effect and detect weak signals in SiPM.
- Fit a single photon spectrum by using ROOT(An Analysis Software).
- Design a PN Junction by Sivalco and find out SRH Current and Ionization Current.

Fabrication of a PN Junction by Standard CMOS Process **Wuhan, China**
Course Thesis Jun. 2017

- Adopt Standard CMOS Process including Cleaning Wafers, Thermal Oxidation, Diffusion, Developing, Lithography, Sputtering, Dry Etching etc.
- Actual Positive Conduction Voltage is 0.6V.

ADI DC-DC Converter (CMOS Analog Integrated Circuit) **Nanjing, China**
National College Students Integrated Circuit Innovation and Entrepreneurship Contest Among Top Universities Owing International Institute of Microelectronics in China Mar. – May. 2017

- Achieve transferring 2.5~5V input voltage into 1.8~1.9V stable output voltage.
- The voltage control mode and current control mode utilize PID compensation and PI compensation respectively to realize the gain and zero pole control.

Simulation and Optimization of Si substrate MOSFET Characteristics **Wuhan, China**
Course Thesis Oct. 2016 – Jan. 2017

- Design a Si substrate MOSFET in Standard CMOS Process by Sivalco.
- Simulate the I-V characteristics curves.

Simulation of Piezoelectric Micromachined Ultrasonic Transducers **Wuhan, China**
HUST Innovation and Entrepreneurship Project Jun. 2016 – Jan. 2017

- Simulate a PMUT Unit by COMSOL.
- Utilize Piezoelectric Materials PZT to realize resonance frequency at 21.8MHz.

Program of Perspectives in the Humanities**CA, America***University of California, Berkley*

Jul. – Aug. 2016

- Learn entrepreneurship, business and leadership courses on researching Silicon Valley Innovation.
- The program is subsidized by School of Optical and Electronic Information in HUST.

INTERNSHIP EXPERIENCE:**Wuhan National Laboratory for Optoelectronics(WNLO)****Wuhan, China***Summer Intern*

Jul.2017

- Visit the Clean Room in WNLO
- Listen lectures about Information Storage Materials and Devices
- Communicate with Doctors from Department of Physics in Taiwan Sun Yat-sen University
- Write a report on the spin characteristics of two - dimensional materials (Graphene, MoS₂)

EXTRACURRICULAR EXPERIENCE:**Department of News Publicity Center in OEI, HUST****Wuhan, China***Editor*

Oct. 2015 – Apr. 2016

- Compile magazines about excellent students' stories in OEI.
- Edit news release happening in OEI.
- Manage OEI official website and distribute news on it.

AWARDS & HONORS:**Individual Scholarship in HUST**

2014-2016(Two Consecutive Academic Year)

National Excellent IC Design Prize

May. 2017

*National College Students Integrated Circuit Innovation and Entrepreneurship Contest***Excellent Social Practice Team in HUST**

Apr. 2017

PROFESSIONAL SKILLS:**Coding Language:** C, C++.**Professional Related Software:** Sivalco, Matlab, Cadence, ROOT, Altium Designer**Office Software:** Proficiency with Microsoft Office (including Word, Excel, Power Point)