Zhi Li

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Education

08/2017-05/2019 **University of Florida (UF), Gainesville, FL, US**
M.Sc. in Electrical and Computer Engineering
GPA: 3.83

09/2012-06/2016 **Dalian University of Technology (DUT), Dalian, Liaoning, China**
B.Eng. in Integrated Circuit Design and Integrated System

Publication

Li X, Li X, **Li Z**, et al. *WS_2 nanoflakes based selective ammonia sensors at room temperature*[J]. Sensors and Actuators B: Chemical, 2017, 240: 273-277. 03/2017

Honor

1st Prize, Provincial Award of Natural Science Academic Achievement, Liaoning Province 09/2018
Member of Interdisciplinary Microsystems Group (IMG) at UF 01/2018
Outstanding Graduate and won the *Excellent Graduation Design* at DUT 03/2016

Research

Titanium Dioxide (TiO_2) Nanoparticles dispersal Research 11/2018-Present
Mentor: Huikai Xie, Professor (UF)
- ✧ Measuring the refractive index and attenuation coefficient for TiO_2 aqueous solution
- ✧ Utilizing the TiO_2 nanoparticles solution to improve performance of OCT probe (immersed OCT probe)

Deep Learning of Optical Coherence Tomography (OCT) System 08/2018-Present
Mentor: Huikai Xie, Professor (UF)
- ✧ Optimizing the structure of endoscopic OCT probe and miniaturization
- ✧ Exploring various type of MEMS used for endoscopic OCT probe testing
- ✧ Doing parallel research of Two-Photon Microscope (TPM) probe

OCT Probe Structure Design and Evaluating 03/2018-05/2018
Mentor: Huikai Xie, Professor (UF)
- ✧ Designed OCT probe structure and assembly assistant parts based on AutoCAD and SolidWorks software
- ✧ Finished OCT probe assembly independently

Optimized Sensitivity for Layered (Mo, W) S_2 Nanoflakes VOCs Sensor 03/2016-06/2016
Mentor: Xiaogan Li, Professor (DUT)
- ✧ Processed and explored (Mo, W) S_2 material with SEM, TEM, XRD and XPS
- ✧ Achieved gas-sensitivity and photosensitivity test of (Mo, W) S_2 sensor, and mechanism analysis
- ✧ Optimized sensitivity for (Mo, W) S_2 sensor with photon energy (LED illumination)

MoS_2 Stripping Procedure and Gas-Sensitivity Research 03/2015-02/2016
Mentor: Xiaogan Li, Professor (DUT)
- ✧ Obtained single and monolayer MoS_2 by grinding raw material
- ✧ Tested the selectivity and gas-sensitivity capability of MoS_2 sensor for different relative humidity
- ✧ Concluded relationship between resistance change and specific gas environment

Digital Integrated Circuit Design EDA 07/2015
My responsibilities:
- ✧ Designed schematic diagram and graphical diagram
- ✧ Conducted layout design and PEX with Calibre
- ✧ Completed simulation and layout by DRC and LVS in the end

Programming Design Based on MCU Assembly Language 04-05/2015
My responsibilities:
- ✧ Adopted the μvirson2 of KEIL integrated debugging software to develop programs
- ✧ Conducted the Single Chip Micyoco I/O port experiment, ADC module TLC549 programming design, digital display and clock system design based on ZLG7290B & PCF8563T

Electronic System Simulation Design Based on Multisim12.0 Software 10-11/2014
My responsibilities:
- ✧ Calculated the critical parameter of differential-mode voltage ratio, common-mode rejection ratio (CMRR), and Signal-Noise Ratio (SNR)
- ✧ Designed electric circuit simulation and conducted transient, noise and waveform analysis

Integrated Development Environment Design Based on VHDL Language 03-04/2014
My responsibilities:
- ✧ Developed digital clock with DE2 development board under PC386 environment
- ✧ Used QUARTUS II based on the VHDL to implement the functions of time display, timing, alarm clock

Internship

Dalian Semiconductor Technology Institute, China 07-08/2015
Content: Learned the wafer manufacturing and the basic wafer processing technology such as vacuum sputtering, magnetron sputtering, photolithography, etching and cleaning; visited and mastered the clean room operation procedures.

Proficiency

COMSOL, AutoCAD, SolidWorks, Inventor, Multisim 12.0, QUARTUS II, KEIL, OriginPro 2016, HSPICE, LabVIEW, VMware, Cadence, etc.