

# Zhouyang Li

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## Education Background

**Huazhong University of Science and Technology (HUST), China** 09/2015-07/2019

- Department: School of Electrical and Electronic Engineering
- Major: Electrical Engineering and Automation
- GPA: 3.91/4.00
- Degree: Bachelor of Engineering (expected in July 2019)

**The University of Manchester, UK** 07/2017-08/2017

- Summer Courses: New Product Development (20 credits)

**Online Course:** Control of Mobile Robots, Georgia Institute of Technology 09/2018-10/2018

### Standard Tests

- TOEFL: 101 (R30 + L27 + S20 + W24) 09/09/2018
- GRE: 326 (V157 + Q169) + AW4.0 13/05/2018

### Awards

- Self-improvement Scholarship, Huazhong University of Science and Technology 2018
- Wuhan Longcheng Scholarship (10%), Wuhan Longcheng Electric Apparatus Works 2018
- Self-improvement Scholarship, Huazhong University of Science and Technology 2018
- Outstanding League Cadres, Huazhong University of Science and Technology 2017

## Research and Internship

### Control Systems Related Experience:

**Single-end Flyback Switching Power Design** 06/2018-07/2018

- Designed the circuit (including the feedback control circuit) and the PCB layout.
- Achieved a constant DC output voltage when AC input varied.

**Maximum Power Point Controller Design for PV (Photovoltaic) system** 03/2018-04/2018

- Designed the controllers based on control algorithms such as P&O and Incremental Conductance.
- Developed the Matlab-Simulink model of PV system, analyzed the performance of the designed controllers and upgraded the P&O algorithm.

**Controller of an Inverted Pendulum System Design** 10/2017-12/2017

- Built the linearized mathematical model of the nonlinear inverted pendulum-cart dynamic system with 4 teammates, and designed controllers based on PID and LQR control theories.
- Developed the Matlab-Simulink model for performance analysis of the designed controllers.

### Microcontroller Programming Related Experience:

**Wheeled Robot Car Design** 10/2017-01/2018

- Used STM32F4 microcontroller as the core and designed the periphery circuits.
- Applied control theories and achieved line-tracking, obstacle-avoiding, temperature-monitoring, Bluetooth-controlling, etc.

**Design of a new Air-conditioning Remote Control** 04/2017-04/2018

- Designed an infrared transmitter (containing a microcontroller) fixed on the air-conditioning.
- Developed an Android app to control the transmitter through Bluetooth.
- Achieved customizing the working modes of the air-conditioning for a long period through the app.

### Student Research Training Program:

**Member of Electrical and Electronic Innovation Center, HUST** 09/2015-07/2016

- Learned control theories and their applications through projects.
- Learned designing circuits, PCB layout using Altium Designer and microcontroller programming (mainly STM32F and Arduino).
- designed a quad-rotor aircraft robot, upgraded PID control algorithms to control motor speed, etc.

### Internship:

**China Southern Power Grid Co., LTD., Intern** 07/2018-08/2018

- Learned the operating mechanism of power grid dispatching automation system.
- Took part in the monitoring of the power grid system.

## Skills

Programming: C, C++, C51, Matlab, Verilog, Python

Electric Circuit Design: Pspice, Multisim, Altium Designer, Saber, Protel, Proteus

Others: Solidworks, Photoshop