# **Zhiyi ZHAO**

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### **EDUCATION**

# South China University of Technology

B.Eng. in Electrical Engineering

Selected courses: Electric Circuits, Analog Electronics, Digital Electronics, Power System Analysis, Power Electronics, Automatic Control Theory | GPA: 3.85 / 4.0 or 90.11 / 100 | Rank: 3 / 31

### RELEVANT EXPERIENCE

## Multi-level Energy Exploitation Based on Hydrogen Storage

May. 2022 - Jul. 2022

Supervisor: Prof. Jiehui Zheng and Prof. Zhigang Li, SCUT

- Incorporated the electric energy converted from renewable energy sources such as wind energy and solar energy into the grid or used it for electrolysis to generate hydrogen for storage
- Achieved multi-level energy utilization of integrated energy through fuel cell power generation, waste heat utilization of hydrogen energy storage, and synthesis of industrial raw materials

# **IoT-based Off-grid Solar Panel Monitoring System**

Apr. 2022

Supervisor: Prof. Mengshi Li, SCUT

- Designed an off-grid solar panel monitoring system integrated on a phone-sized PCB
- Utilized the wide coverage characteristics of NB-IoT network to adapt to various application scenarios
- Built a personal web server to extract data from SQL server and display it on the front-end interface

# Design of Smart Access Control System Based on RFID and Bluetooth Technology

Apr. 2022

Supervisor: Prof. Guangzheng Yu, SCUT

- Established communication between Arduino and RFID module, Bluetooth module to form the main part of the system
- Implemented three parallel door opening methods: button unlocking, card unlocking, and Bluetooth input password unlocking

# **ACTIVITIES**

### Guangdong-Hong Kong-Macao Greater Bay Area Summer School 2021, CUHK

Jul. 2021

• Read excerpts from classic texts such as Plato's *The Republic* and Newton's *The Principia* in the course *UGFN1099: Reading Nature* taught by Prof. WONG Wing Hung. Wrote several reflection journals in English

# Summer in Japan 2021, Kyushu University

Jul. 2021

- Received a scholarship equivalent to the tuition fee, which is only awarded to "applicants whose academic records are evaluated as particularly strong by the SIJ selection committee"
- Achieved S (90-100) grades in the chosen courses *Interdisciplinary Lecture Series (ILS)* and *Japanese Language Course (JLC)* The program reflection was posted on the program's official website

#### **AWARDS**

- National Scholarship (Top 0.2% national-wide)

Dec. 2022

- First Prize in the 1st Electrical & Electronics Engineering Innovation Competition (Southern Division)

Jul. 2022

### **SKILLS**

- Language: CET-6 551

- **Programming:** C++, Python

- Tools: Matlab/Simulink, PSCAD, Multisim, Quartus, TFX, Visio, Origin

Last Updated on April 14, 2023