

# YANGLANG YUAN

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## EDUCATION

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**Southern University of Science and Technology**  
M.Sc. in Electronic Science and Technology

Sept. 2021 - June 2024 (Expected)  
Shenzhen, China

**Southern University of Science and Technology**  
B.Eng. in Mechanical Engineering

Sept. 2015 - June 2019  
Shenzhen, China

## PUBLICATIONS & PATENTS

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### Journal Papers

- Shiquan Ling, **Yanglang Yuan**, Danqi Yan, Yuquan Leng, Yiming Rong, George Q. Huang. (2022). "RHYTHMS: Real-time Data-driven Human-machine Synchronization for Proactive Ergonomic Risks Mitigation in the Context of Industry 4.0 and Beyond", *SSRN Electronic Journal*. doi: 10.2139/ssrn.4153658.
- **Yanglang Yuan**, Daqiang Guo, Shiquan Ling, Jingke Wang, Guyue Zhou, Yiming Rong, Yongsheng Ma. (2022). "A framework for Customer-to-Manufacturer (C2M) in the context of Industry 5.0" (*To be Submitted*)

### Patents

- **Yanglang Yuan**, Jiahui Zhang, Xiaoyu Zhang, Fan Zhou, Yajun Wang, Hui Li, Haijiang Wang. Fuel cell bipolar plate and fuel cell: CN, 110459780A[P]. 2019-11-05.
- **Yanglang Yuan**, Jiahui Zhang, Xiaoyu Zhang, Fan Zhou, Yajun Wang, Hui Li, Haijiang Wang. Fuel cell bipolar plate and fuel cell: CN, 210429963U[P]. 2019-07-25.

## RESEARCH EXPERIENCES

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### Intelligent Manufacturing Lab at SUSTech

*Advisor: Prof. Yiming (Kevin) Rong, Prof. Yongsheng Ma*

July 2021 - Present  
Shenzhen, China

- **Researching for Customer-to-Manufacturer(C2M)**

Data-driven intelligent manufacturing systems;  
C2M manufacturing system model with universality and completeness;  
3D printing sneakers based on C2M scene.

### Shenzhen Key Laboratory of Hydrogen Energy

*Advisor: Prof. Haijiang Wang*

June 2017 - June 2019  
Shenzhen, China

- **A Bipolar Plate Design for Fuel Cell**

Mechanical structure design of a novel bipolar plate for fuel cell unmanned aerial vehicle (UAV);  
Simulated in SolidWorks and COMSOL for the static and dynamic analysis.

- **A Controlling System for Fuel Cell**

Designed the control logic and methods & controller of the fuel cell system;  
Designed the temperature and voltage patrol detection system of Fuel Cell.  
Thesis topic: Controlling System of the fuel cell in the unmanned aerial vehicle (UAV)

### Seoul National University - SUSTech Research Program

*Advisor: Prof. Keyang Tang*

Dec. 2017 - Jan. 2018  
Shenzhen, China

· **International Winter Undergraduate Research Experience**

Worked in mixed teams with Seoul National University students to complete specific research tasks;  
Analysis of the development of the intelligent manufacturing industry;  
Brief hypothesis of an integrated system for design, manufacture and maintenance of the shared bicycle.

**Robotics and Autonomy Lab at Tsinghua University**

June 2017 - Aug. 2017

*Advisor: Prof. Chenglong Fu*

*Beijing, China*

· **Summer Undergraduate Research Project**

Participated in the design and manufacturing of a robot Bluetooth communication controller;  
Other advanced knowledge in Robotics.

**Formula Student Electric China Program**

2016 - 2017

*Advisor: Prof. Yiming (Kevin) Rong*

*Shenzhen, China*

· **The Controlling System of Electric Racing**

Jan. 2017 - Aug. 2017

Designed the control logic and methods of electric racing;  
Built the high voltage and low voltage circuits of the racing.

· **Battery Management System(BMS) of Electric Racing**

June 2016 - Jan. 2017

Research on the control strategy of the battery management system;  
Designed and built the temperature and voltage detection circuit of a battery management system.

## TEACHING EXPERIENCE

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**Advanced Manufacturing Systems**

Feb. 2022 - June 2022

*Teaching Assistant*

*Shenzhen, China*

- Responsible for introducing computer-aided design (CAD), computer-aided engineering (CAE), computer-aided manufacturing (CAM), robotics, material resource planning, tool management, information management, process control, quality control, etc.

**Awareness Practices of Manufacturing Engineering**

Sept. 2021 - Jan. 2022

*Teaching Assistant*

*Shenzhen, China*

- Responsible for preparation of equipment, data analysis, and presentation of results and conclusions of the students' course projects.

## SKILLS

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**Certificate**

GCDF

**Programming**

Proficient: MATLAB, Plant Simulation; Intermediate: C/C++, Java

**Technical Tools**

Solidworks, AutoCAD, CNC, Altium Designer, LaTeX, Markdown, etc.

**Language**

Chinese, Cantonese, English

## HONORS & AWARDS

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Outstanding Postgraduate Student, SUSTech

2022

Excellent Postgraduate Teaching Assistant, SUSTech

2021 - 2022

Employee of the Year, SUSTech

2021

Outstanding Graduation Thesis, SUSTech

2019

Honorary Graduate of Zhicheng Residential College, SUSTech

2019

Self-improvement Star of Zhicheng Residential College, SUSTech

2019

National Encouragement Scholarship, China

2018

Outstanding Leadership of Zhicheng Residential College, SUSTech

2016 - 2018

Winning Award of Formula Student Electric China

2017