YANGLANG YUAN

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EDUCATION

Southern University of Science and Technology	Sept. 2021 - June 2024 (Expected)
M.Sc. in Electronic Science and Technology	Shenzhen, China
Southern University of Science and Technology	Sept. 2015 - June 2019
B.Eng. in Mechanical Engineering	Shenzhen, China

PUBLICATIONS & PATENTS

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. (2023). "A framework for Customer-to-Manufacturer (C2M) in the context of Industry 5.0" *(Submitted to journal)*

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

Intelligent Manufacturing Lab at SUSTech	July 2021 - Present
Advisor: Prof. Yiming (Kevin) Rong, Prof. Yongsheng Ma	*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	June 2017 - June 2019
Advisor: Prof. Haijiang Wang	*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	Dec. 2017 - Jan. 2018
Advisor: Prof. Keyang Tang	*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

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

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

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