

# YANGLANG YUAN

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## EDUCATION

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### Aalto University

PhD in Mechanical Engineering

July 2024 - Present

Helsinki, Finland

### Southern University of Science and Technology

M.Sc. in Electronic Science and Technology

Sept. 2021 - June 2024

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

- **Yanglang Yuan**, Jingke Wang, Guyue Zhou, Yiming Rong, Yongsheng Ma. (2024). "A framework and implementation of the Customer-to-Manufacturer (C2M) paradigm", *Advanced Manufacturing*. doi: 10.55092/am20240004
- 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", *Robotics and Computer-Integrated Manufacturing*. doi: 10.1016/j.rcim.2023.102709

### Conference

- **Yanglang Yuan**, Jingke Wang, Kang Tang, Guyue Zhou, Yiming Rong, Yongsheng Ma. (2023). "A framework and implementation of Customer-to-Manufacturer (C2M) paradigm in e-Commerce" (*NSFC-RGC Conference 2023, Hong Kong*)
- J Wang, **Y Yuan**, Y Ma. "Research on Intelligent Fitting Based on Parametric Human Modeling and 3D Garment Simulation" *2024 5th International Conference on Big Data, Artificial Intelligence and Internet of Things (ICBAIE 2024), Shenzhen, China*

### 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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### The Materials to Products research group

Advisor: Prof. Junhe Lian

Machine Learning for material behavior prediction (in cross-scale);

Machine Learning for structure-property relation prediction.

July 2024 - Present

Helsinki, Finland

### Intelligent Manufacturing Lab at SUSTech

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

July 2021 - July 2024

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 UAV

## TEACHING EXPERIENCE

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### Computational Engineering Project, Lecture

*Teaching Assistant*

Sept. 2024 - Jan. 2025

*Helsinki, Finland*

- Responsible for the arrangement of course seminars, presentations, tutorial materials, etc.

### Advanced Manufacturing Systems

*Teaching Assistant*

Feb. 2022 - June 2022

*Shenzhen, China*

- Responsible for introducing computer-aided design (CAD), computer-aided manufacturing (CAM), process control, quality control, etc.

### Awareness Practices of Manufacturing Engineering

*Teaching Assistant*

Sept. 2021 - Jan. 2022

*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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### Programming

Proficient: MATLAB, DAMSK; Intermediate: C/C++, Python, Java

### Technical Tools

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

### Language

Chinese, Cantonese, English

## HONORS & AWARDS

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Excellent Graduate with a Postgraduate Degree, SUSTech 2024

Award of Outstanding Morality, SUSTech 2024

Outstanding Postgraduate Student, SUSTech 2022 - 2023

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

Outstanding Student Representative of Student Congress, SUSTech 2017

Third-Class SUSTech Scholarship for Outstanding Student 2015-2017