

# TANG Shuang

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## EDUCATION

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**Southern University of Science and Technology (SUSTech)** **08/2017 - 06/2021**

Bachelor of Engineering in Communication Engineering

- GPA: 3.4/4.0
- IELTS: 6.5

## WORK EXPERIENCE

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**Department of Electrical Engineering, SUSTech** *Research Assistant* **11/2021 - present**

- Responsible for scientific research projects and assist in the management of research team;
- First author of ‘*Automatic Modeling Framework for Arc Fault Detection*’, contributed to International Journal of Electrical Power & Energy Systems, under review

**Hytera Communications Corporation Limited** *Overseas Marketing Engineer* **07/2021 - 10/2021**

- Responsible for technical presentation and introduction;
- Developing solutions for the communications market in the South Asia region, involving a private network solution for the navy of a South Asian country;
- Working as the sole technical marketing engineer for a national technical solution in Sri Lanka, including a network construction solution for a Sri Lankan army;
- Provided technical support for projects with a cumulative project turnover of over *Four Million USD*.

## RESERACH EXPERIENCE

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**Cheng Qingsha (Associate Professor) Research Group** **03/2019 - 06/2021**

- *01/2021-06/2021*, Participated in the project of "Fault Arc Detection based on Artificial Neural Network" as an independent principal, mastered data processing and neural networks knowledge, and applied binary differential evolutionary algorithms to optimize the selection process;
- *09/2019-12/2020*, Engaged in the project of “Electrostatic State Modeling of Chip Devices based on Optimization Algorithms as an independent principal, and acquired models for device simulation and electrostatic protection;
- *03/2019-06/2019*, Involved in the project of "Crawling and database creation of antenna design drawings and design data", and possessed the ability to write code in Java for the participation in projects.

## COMPETITION EXPERIENCE

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**The 12<sup>th</sup> Guangdong University Students Entrepreneurship Competition** **07/2020**

**"Challenge Cup -Youth Creation"**

- **Competition Result:** Gold Award
- **Award-winning Project:** MixedCollab Remote Collaboration Solution
- The MixedCollab project is based on seven unique patents, integrating AR/MR and hybrid cloud computing, to provide a combination of soft-hard-cloud online collaboration solution;
- MixedCollab's office online collaboration solution includes online office collaboration software, AR/MR glasses hardware and cloud services;
- MixedCollab uses the latest display technology-Micro-LED, has an exclusive semi-split design to solve the current power consumption and performance issues of AR /MR devices, and facilitates interaction through a series of software patents;
- The combination of soft-hard-cloud can greatly improve the user viscosity, enhance the user experience.

## THESIS

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**An Artificial Neural Network Using Wavelet Transform For Electric Arc Detection** 01/2021 - 06/2021

- **Supervisor:** Cheng Qingsha (Associate Professor)
- **Research Objective:** To propose a machine learning model which can diagnose a current as either normal or arc fault with high accuracy;
- **Research Results:** The proposed machine learning modelling framework employing optimisation algorithms and signal processing with DWT has several notable advantages over previous methods for arc fault detection. Furthermore, it is found through validated cases that in the wavelet transform, the approximate coefficient has superior features than the detailed coefficient in some cases.

## AWARDS & HONORS

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- "Hong Yi Graduate" of Shude College, SUSTech **06/2021**
- Gold Award in The 12<sup>th</sup> Guangdong University Student Entrepreneurship Competition "Challenge Cup -Youth Creation" **08/2020**
- University-level Third Prize in National University Student Organization and Management Competition **06/2020**
- Bronze Award in The 11<sup>th</sup> Guangdong University Student Entrepreneurship Competition "Challenge Cup -Youth Creation" **09/2018**
- Third Prize of Excellent Volunteer, SUSTech **09/2018**
- Outstanding Individual in Social Practice, SUSTech **05/2018**
- Merit Award of Freshman Scholarship, SUSTech **09/2017**

## EXTRACURRICULAR ACTIVITIES

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- Campus ambassador for the listed technology company "Hytera" **10/2020**
- SUSTech & Huawei Ascend AI cloud collaborative development and application training camp **07/2020**
- Communication engineering project exchange at the University of British Columbia **08/2019**
- "4:30 Classroom" commonweal project (SUSTech), and volunteered to teach at Southern University of Science and Technology No2 Primary School **09/2018 - 12/2018**
- The officer in the Student Union of Shude College, SUSTech. **09/2017 - 01/2018**

## SKILLS & HOBBIES

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- Proficiency in data processing with MATLAB
  - Proficiency in Python, Java programming
  - Mastery of Web development languages: personal website: [www.tangshuang2000.cn](http://www.tangshuang2000.cn)
  - English academic paper writing skills and LaTeX editing skills
  - Good literature searching and reading skills
  - Hobbies: Ball Sports, Music Production, Guitar, and Traveling.
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