

# Yipeng PAN

yppan@hku.hk  
<https://yp779.github.io/>

(+852) 5622-7242  
Hong Kong SAR, China

## EDUCATION

**China University of Mining and Technology (211)**

Sep 2015 – Jul 2019

**B.Eng in Electronic Engineering**

Xuzhou, China

- **GPA:** 85/100  
(Top 15%, Recommended Admission to Postgraduate)
- **Major courses:** Visual C++ Programming (96), Circuit Theory (90), Engineering Mathematics (96), Linear Algebra (98), Principle of Automatic Control (89), Information Theory (98), Image processing (89), Engineering Graphics (92), Digital Electronics Technology (89), General Physics (89), Microcomputer Principle & Application (95), Integrated Design of Electronic Technology (95), Embedded System Principle & Application (83), Network Programming (90), etc.

## WORK EXPERIENCE

**Chinese Academy of Sciences (CAS)**

Apr 2020 – Aug 2020

**Intern Student, Robot and Intelligent Equipment Center of SIAT**

Guangzhou, China

**Supervisor: Prof. Qujiang Lei (UCAS)**

- Developed software for counting the number of pipes with Qt and OpenCV, which has been deployed in a factory in Foshan
- Developed metal pipe grasping system for Yumi robot

**Hong Kong University of Science and Technology (HKUST)**

Dec 2021 – Oct 2022

**Research Assistant, HKCRC**

Hong Kong, China

**Director: Prof. Zexiang Li**

- Developed three prototypes of scanning devices, one of which will be shown on ICRA2022
- Designed a sensor-fusion synchronization control board, which shows better performance on existing SLAM algorithms than its counterparts in labs of HKU or HKUST

**The University of Hong Kong (HKU)**

Apr 2021 – Nov 2021

**Research Assistant, iLab**

Nov 2022 – TBC.

**Supervisor: Prof. Wilson Lu (Associate Dean)**

Hong Kong, China

**Prof. Anthony Yeh (Academician, Chinese Academy of Sciences)**

- Developed new i-Core for “BIM Square” project (ITF, ITC, HKSAR) (ITP/029/20LP, 10.36M HKD), and finally will be installed on Modular Integrated Construction of HKU Wong Chuk Hang Campus. This project also won an ICT Gold Award
- Developed a human-robot collaborative grasping system with the combination of HoloLens (AR) and UR5 robot arm

## SKILLS

- Coding: C / C++ / Java / Python
- GUI: Qt (C++) , Android (Java), IOS (Objective - C)
- Cooperation: Git
- Computer Vision: OpenCV, Halcon
- Robotics: Linux Shell, ROS
- Mechanics: AutoCAD, SolidWorks
- Electronics: Verilog HDL (FPGA), STM32 (HAL, STD), Arduino, PCB Layout (SMT)
- Word: LaTeX, Markdown

## HONORS & AWARDS

---

- Gold Award, Hong Kong ICT Awards (Smart Logistics) 2022
- 2<sup>nd</sup> Prize, National Electronic Design Competition 2017
- National Encouragement Scholarship, Ministry of Education 2018
- Honorable Mentions, Mathematical Contest in Modeling 2018
- 1<sup>st</sup> Prize, Provincial Electronic Design Competition 2017
- 2<sup>nd</sup> Prize, Provincial Electronic Design Competition 2018
- 2<sup>nd</sup> Prize, Postgraduate Electronic Design Competition 2019
- School Excellent Graduation Design 2019
- 1<sup>st</sup> Prize, School Electronic Design Competition 2019
- Second Class Scholarship 2017

## PROJECTS & DESIGNS

---

My entire Portfolio and Video Presentation — <http://pyp1024.cf/>

Selected are as follows:

- **Tracking Drone (Second Prize in National Competition)**  
Functions: The drone can take off, hover and land automatically, and follow the remote control car automatically when flying (it can learn to follow differently colored targets)
- **New i-Core (Funded by ITF2020 (ITP/029/20LP))**  
Functions: The data collected by IMU, GPS, UWB and other sensors will be packed up in specific format and then uploaded to the universal platform which implies BIM, Blockchain and other technologies, aiming to manage the building flow and supply chain better
- **Lidar SLAM Device Synchronization Board**  
Functions: This board can trigger peripheral sensors such as multi-line Lidar, IMU, camera and motor encoder, to achieve a better time synchronization performance

## EXTRACURRICULAR ACTIVITIES

---

### Office Director, School Electronics Association

Jun 2017 – Jul 2018

- Awarded the honor of 'Excellent Cadre', and the association was nominated and selected as the Top-10 associations

### Lab Manager, Electronics Design Laboratory

Jun 2018 – Jul 2019

- Authorized to host the School Electronic Design Competition
- Be appointed to manage all routine work of the Lab

## PUBLICATIONS

---

[Conference] Yonglin Fu, Junjie Chen, Yipeng Pan and Weisheng Lu, An integrated visualization framework to enhance human-robot collaboration in facility management, CRIOCM.

[Under Review] Junjie Chen, Weisheng Lu, Yonglin Fu, Yipeng Pan and Frank Ato Ghansah, Digital twin-enabled human-robot collaborative teaming for facility management, Computers in Industry.