Yipeng PAN

Email yppancs@connect.hku.hk (+852) 6733-3260
Page https://yp779.github.io/ Hong Kong SAR

EDUCATION

China University of Mining and Technology (211) Sep 2015 – Jul 2019
B.Eng. in Electronic Engineering
GPA: 85 / 100 (Top 15%, Recommended Admission to Postgraduate)

The University of Hong Kong Sep 2023 – TBC.
Ph.D. in Computer Science (Robotics)
Supervisor: Dr. Jia Pan
Prof. Anthony G.O. Yeh (Academician, Chinese Academy of Sciences)

CAREER

HKUST iLab
Position: Research Assistant Apr 2021 – Nov 2021
Director: Prof. Weisheng Lu Nov 2022 – Mar 2023

HKUST HKCRC Dec 2021 – Oct 2022
Position: Research Assistant
Director: Prof. Zexiang Li

HKU TransGP Apr 2023 – TBC.
Position: Research Assistant
Director: Prof. Norman C. Tien

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, 3D Printing
Electronics: Verilog HDL (FPGA), STM32 (HAL, STD), Arduino, PCB Layout (SMT)
Word: LaTeX, Markdown

AWARDS

Gold Award, Hong Kong ICT Awards (Smart Logistics) 2022
2nd Prize, National Electronic Design Competition 2017
National Encouragement Scholarship, Ministry of Education 2018
Honorable Mentions, Mathematical Contest in Modeling 2018
1st Prize, Provincial Electronic Design Competition 2017
2nd Prize, Provincial Electronic Design Competition 2018

2nd Prize, Postgraduate Electronic Design Competition 2019
School Excellent Graduation Design 2019
1st Prize, School Electronic Design Competition 2019
Second Class Scholarship 2017

PROJECTS

SELECTED:

- **Tracking Drone (Second Prize winner in National Electronic Design Competition)**
  The drone can autonomously take off, hover and land. It can also automatically track and follow a remote-control car (by learning to follow targets of different colors).

- **i-Core (Funded by ITF2020 (ITP/029/20LP)**
  With the goal of improving the management of building processes and supply chains, the system will organize data collected from IMU, GPS, UWB, and other sensors into a specific format. Subsequently, this data will be uploaded to a universal platform integrating BIM, Blockchain, etc.

- **LiDAR SLAM Synchronization Board (Start-up Project)**
  This board is designed to synchronize peripheral sensors, including LiDAR, IMU, cameras, and motor encoders, Consequently, to improve the effectiveness of LiDAR SLAM.

PS: Entire Portfolio & Demos: http://pyp1024.cf/

PUBLICATIONS

[1] Chen, Junjie & Lu, Weisheng & Pan, Yipeng & Fu, Yonglin. (2024). Building “RoboAvatar”: Industry Foundation Classes–Based Digital Representation of Robots in the Built Environment. Journal of Computing in Civil Engineering.

[2] Lu, Liang, Yinqiang Zhang, Peng Zhou, Jiaming Qi, Yipeng Pan, Changhong Fu, and Jia Pan. "Semantics-Aware Receding Horizon Planner for Object-Centric Active Mapping." *IEEE Robotics and Automation Letters* (2024).

[3] Chen, Junjie & Fu, Yonglin & Lu, Weisheng & Pan, Yipeng. (2023). Augmented reality-enabled human-robot collaboration to balance construction waste sorting efficiency and occupational safety and health. Journal of environmental management.

[4] Lu, Weisheng & Chen, Junjie & Fu, Yonglin & Pan, Yipeng & Ghansah, Frank. (2023). Digital twin-enabled human-robot collaborative teaming towards sustainable and healthy built environments. Journal of Cleaner Production.