Hanjing YE

Curriculum Vitae

Department of Electrical and Electronic Engineering
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My Webpage

Education

2022–present **PhD candidate, Electrical and Electronic Engineering**, *Southern University of Science and Technology (SUSTech)*, Shenzhen.

2020–2022 : **Visisting student, Electrical and Electronic Engineering**, *SUSTech*, Shenzhen.

2019–2021 : **Master of Engineering, Mechanical and Electrical Engineering**, *Guangdong University of Technology (GDUT)*, Guangzhou.

2015–2019 : **Bachelor of Engineering, Mechanical and Electrical Engineering**, *GDUT*, Guangzhou.

Publications

† indicates equal contribution, and * indicates corresponding authorship.

Conference Proceedings

2023 **Hanjing Ye,** Jieting Zhao, Yaling Pan, Weinan Chen, Li He and Hong Zhang*, Robot Person Following Under Partial Occlusion, Submitted to *2023 IEEE International Conference on Robotics and Automation (ICRA)* – Accepted.

2022 Weinan Chen†, **Hanjing Ye†,** Lei Zhu, Chao Tang, Changfei Fu and Hong Zhang*, Keyframe Selection with Information Occupancy Grid Model for Long-term Data Association, In *2022 IEEE International Conference on Intelligent Robots and Systems (IROS)* – Published.

2021 **Hanjing Ye,** Guangcheng Chen, Weinan Chen, Li He, Yisheng Guan and Hong Zhang*, Mapping While Following: 2D LiDAR SLAM in Indoor Dynamic Environments with a Person Tracker, In *2021 IEEE International Conference on Robotics and Biomimetics (ROBIO)* – Published.

Journal Articles

2021 **Hanjing Ye†,** Weinan Chen†, Jingwen Yu, Li He, Yisheng Guan and Hong Zhang*, Condition-Invariant and Compact Visual Place Description by Convolutional Autoencoder, Submitted to *ROBOTICA* – Accepted.

Research Experience

Shenzhen Key Laboratory of Robotics and Computer Vision, SUSTech

2021–present ***Robot Person Following***.

- Developing a life-long person identification module which could keep identifying the master even under severe domain-drift condition based on a novel replay-based online continual learning method.
- Proposed a vision-based robot person following system which endows the mobile robot with an ability of following the master even under partial occlusion based on a novel hybrid location approach.
- Proposed a robot-person-following-assisted 2D LiDAR SLAM system that is able to simplify the mapping procedure and mitigate the influence of dynamic objects.

Advisor : **Dr. Hong Zhang**, *Chair Professor, Department of Electronic and Electrical Engineering, SUSTech*

Shenzhen Key Laboratory of Robotics and Computer Vision, SUSTech & Biomimetic and Intelligent Robotics Laboratory, GDUT

2019–2021 ***Visual Place Recognition***.

- Proposed a keyframe selection strategy with information occupancy grid model for long-term data association by utilizing explainable deep-learning-based descriptor and information gain theory.
- Proposed a condition-invariant and compact visual place description for visual place recognition by distilling the high-level representation with a convolutional-autoencoder-based reconstruction procedure.

Advisor : **Dr. Hong Zhang**, *Chair Professor, Department of Electronic and Electrical Engineering, SUSTech*

Teaching Assistant

Fall, 2021: **EE5346: Autonomous Robot Navigation**, SUSTech.

Spring, 2021: **EE346: Mobile Robot Navigation and Control**, SUSTech.