Jiang Yiyi

Gender: Female
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EDUCATION

Dalian Maritime University （211） *Dalian,China*
B.Eng. in Marine Engineering college *Sep.2017 – June.2021*
GPA:4.0/5.0 (Ranked 1st in class of 85 students)
National scholarship； Outstanding graduates

Zhejiang University (985) *Hangzhou, China*
MPhil. In Mechanicial Engineering, Ocean College *Sep.2021 – Mar.2024(Excepted)*
GPA: 83/100
IELTS: 6

RESEARCH PROJECT

Zhejiang University

Research on Coral Detection Technology Based on Machine Vision *2023.01-2023.08*

- Project Description: The purpose of the project is to research a coral information processing technology based on image processing and neural networks. It is used to process coral images or videos obtained in various ways, identify corals, and obtain information such as coral species, quantity, size, and depth.
- Skills and Tools: Deep learning-based object detection method, binocular stereo vision, tracking and counting algorithm.

Design and Manufacturing of AUH (Autonomous Underwater Helicopter) *2021.09-2022.12*

- Project Description: The objective of the project is to design and manufacture an AUH specifically for coral detection , aimed at mid-scale coral exploration. Based on the requirements for coral detection, the AUH will be designed to carry the coral detection technology developed to detect corals , enabling the detection of corals.

SCIENTIFIC RESEARCH ACHIEVEMENTS

- **Yiyi Jiang**, Mengjie Qu, Ying Chen. Coral Detection, Ranging, and Assessment (CDRA) algorithm-based automatic estimation of coral reef coverage. Marine Environmental Research, 2023, https://doi.org/10.1016/j.marenvres.2023.106157.
- Xinhui Zheng, Wenbo Xu, Hongxu Dai, Rongrong Li, **Yiyi Jiang,** Qiyan Tian, Zhang Qifeng,Xiaohui Wang.A coordinated trajectory tracking method with active utilization of drag for underwater vehicle manipulator systems. Ocean Engineering, under review.
- In application: Mengjie Qu, **Yiyi Jiang**. ROV-Based In-situ Compression Device for Fixating Deep-Sea Bivalves and Other Large Organisms, a patent currently under review.
- In application: Ying Chen, Haoda Li, Xinyu An, Zhikun Wang, **Yiyi Jiang**, and Haocai Huang. The instruction manual for the Dual-Drive Autonomous Underwater Helicopter, a patent currently under review.
- In application: Mengjie Qu, **Yiyi Jiang**, Yanan Di, Yiwen Pan. The Application of Deep Learning-Based Marine Bivalve Comet Detection in Marine Pollution Monitoring, a patent currently under review.
- In application: Mengjie Qu, **Yiyi Jiang**. A Deep Learning-Based Method for Identification and Counting of Micronucleated Cells in Marine Bivalves, a patent currently under review.
- **Jiang, Y.**, & Chen, Y. (2023). "Mid-Scale Coral Detection Platform." presented at the National Conference on Marine Technology (China). Yiyi Jiang delivered the on-site presentation.

RESEARCH FOCUS

Computer vision
Underwater robotics
Deep learning
Image processing

PROFESSIONAL SKILLS

Mastery of Windows and Linux systems.
Proficiency in commonly used office software and language development tools, such as Office and PyCharm.
Proficiency in the Python programming language.

ABOUT ME

Motivation for doctoral degree: Advance academic knowledge and abilities. Previous studies provided solid foundation. Want to enrich experience in Hong Kong for diverse academic environments and learning methods. Exposure to various thinking modes enhances learning and personal growth. Open to exploring diverse research areas. Motivated by challenge of acquiring new knowledge and skills. Doctoral research to improve problem-solving and critical thinking. Aim to develop innovative problem-solving approaches and flexible mindset for different contexts.