

Marine Technology and Engineering Master's Program

According to the strategic plans of Tsinghua University and industrial demands of the Shenzhen Government, Tsinghua SIGS has laid out six top-notch engineering programs including Marine Engineering. The field of marine science supports the construction of Shenzhen as a global marine center, provide power for Shenzhen's industrial transformation and assist social innovation and development of the Greater Bay Area.

A cross between three fields -- Civil and Hydraulic Engineering, Electronic Information, and Earth Resources & Environment, the program will focus on topics in resource development, environmental protection and ecological restoration. The program has trained over 191 Master's or Ph.D. students who are employed by major public institutions, scientific research institutions and others.

Research

The Division of Marine Science and Technology at Tsinghua SIGS mainly focuses on areas such as marine technology, physical oceans, biogeochemistry and marine life. Three main research directions include marine engineering, marine technology and marine ecology environment.

The Division has successively undertaken 10 national major scientific research projects. In 2014, the "Shenzhen Deep-sea Offshore Engineering Equipment Supporting Test Platform project" approved by the State Oceanic Administration was a great achievement to Shenzhen's marine industry development. In 2017, it was approved for another 2 national key marine projects, achieving further breakthrough for Shenzhen and Tsinghua University.

In 2011, the Tsinghua Marine Technology Research Center was established. An interdisciplinary research institution supported by the Division of Marine Science and Technology at SIGS, the Center focuses on major marine science technology areas and application problems in marine economy development.

Over the years, the Division has led the construction of various R&D platforms on the state and municipal levels. It is also supported with rich research resources and hardware. The test site supported by the State Oceanic Administration is also equipped with a 1000-ton mother ship, capable of sea trials at the South China Sea.

Professional Development

The program adopts an interdisciplinary, practical-based education and training model. Through domestic and international cooperation, the program aims to train talents with knowledge in ocean theory, marine technology development capabilities, international vision and strong innovation ability. The program will cultivate students' independent innovation and research ability across different fields, while highlighting international frontier technology.

With support from the Department of Civil Engineering, School of Environment and the School of Mechanical and Precision Instruments at the main campus, the program makes full use of Tsinghua's strength in scientific research and advanced engineering technology background. It also leverages resources in Shenzhen by cooperating with famous overseas enterprises and leading universities in the country and abroad. Students are encouraged to participate in research and innovation projects locally and internationally.

Faculty

The program is building a core team from the Division of Marine Science and Technology at Tsinghua SIGS, as well as the Dept. of Civil Engineering, School of Environment, and Dept. of Mechanical Engineering at Tsinghua University.

At present, our faculty team members include:

SIGS Division of Marine Science and Technology: Professors Chen Daoyi, Lin Guanghui, Wu Xiaofeng, Zheng Xiangyuan, Cai Zhonghua and Xing Jiuxing. Associate Professors Mao Xianzhong, Jiang Yuelu, Li Yi, Hu Zhenzhong, Zhu Xiaoshan, Zhou Jin, Li Qiang and Liao Ran. Lecturers Wu Guozhong and Li Sunwei.

Other Divisions: Professors Wang Xiaohao, Feng Pingfa, Wang Liming, Li Xiu and Ma Hui. Associate Professors Dong Yuhan, Liu Houde and Guo Zhenhua