



Editorial

Engineering Solutions to Mechanics, Marine Structures and Infrastructures

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In order to develop and utilize ocean and sea resources, a variety of marine structures and floating bodies are required. In the field of marine engineering, the term "floating objects" refers to a variety of offshore construction equipment and engineering equipment facilities that float or are suspended in the water.

It has been gradually moving from the shallow sea to the deep blue since the founding of New China and, in particular, since the reform and opening-up of China. Over the past decade, China has experienced a leapfrog development in marine engineering technology since entering the new century. Five types of offshore oil 981 six ships and a series of high-tech, high value-added, multi-functional marine engineering vessels and marine research vessels have entered service as a result of China's independent and integrated construction of the world's largest tonnage offshore floating production and storage device FPSO-P70. It is time for China's super fleet of ships and offshore oil engineering development to take off.

From 2003 to 2030, the price of crude oil is projected to increase by an average annual rate of 1.40%. The key to the future growth of oil production lies in the development of deep-sea oil and gas. The global sea-related economy has been developing rapidly in recent years, which has led to the reorganization of the global sea-related equipment industry. A new international competition pattern has emerged in the marine equipment industry in particular. A new pattern of capital and technology monopoly is increasingly evident in the assembly and construction of marine equipment around the world.

It can be seen that the development of deep-sea resources, the development of marine high-tech and the enhancement of the competitiveness of deep-sea survival have become an inevitable trend and a major strategic plan for the development of the marine economy, which not only contributes to the enhancement of our country's international status and comprehensive national strength, but also holds the key to improving our country's actual ownership of, and discourse on, the relevant sea areas! We want to ask for resources from

the ocean, we want to expand the space to the ocean, we want to seek development to the ocean! As an important carrier for the development of the ocean, all kinds of ships and marine structures play an irreplaceable and important role in it.

Modern marine engineering faces a growing number of technical challenges in specific engineering practices. There is also an increase in the complexity of its related equipment and facilities, as well as an increase in the severity of the construction environment. It is evident from the development history of engineering technology that the progress and development of any engineering technology are inseparable from the actual engineering requirements. Marine environments are intricate and complex, wind and wave loads are complex and variable, especially wind and wave loads which are highly random. We must therefore innovate and develop the theory and technology related to marine engineering, and it is necessary to innovate and develop in the field of ocean engineering theory and technology.

Thus, by combining the development trend of ships and marine structures with science and technology engineering, I intend to contribute to the practice of engineering as well as make breakthroughs and innovations in theory. Engineering Solutions to Mechanics, Marine Structures and Infrastructures was established to provide a forum for the exchange of professional knowledge among colleagues in the industry.

A variety of cutting-edge articles will be published in the journal, including computational design and analysis in marine engineering, engineering management and applications in turbomachinery and marine engineering, port and transportation, exploration of deep-water and deep-sea resources, civil engineering and structural engineering, and more. In addition, we welcome submissions from scientists and engineers interested in the application of engineering and engineering technology as well as cross-disciplinary research.

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The honor of becoming the journal's founding editor-in-chief is a great honor for me, and together with the editorial board, we will follow the journal's original intent, live up to the time, and continue to develop the journal to its full potential!