

Editorial

Marine Technologies: Revolutionizing Ocean Knowledge

Why do we know more about the moon's surface than we do about our ocean floors? The main reason for our lack of direct observations of our ocean floor is technological. The surface of the earth or the moon is directly illuminated by light and radio waves. On the contrary, the deep ocean is completely dark. The intense pressure of the deep ocean and to see through water makes it challenging to explore. The mysteries of the ocean accumulated more when we get to know that it contains the largest mountain range on earth, canyons far grander than the Grand Canyon. That is why the ocean is still a mysterious domain for all of us. However, the advent of marine technologies in the 21st century is revolutionizing and it's enabling us to open up ocean knowledge, though yet to go a long way. Exploration of the ocean to get the maximum benefit out of it directly involves the technology and the economic strength of a nation.

In the aftermath of Bangladesh's independence, the country was suffering from multitudes of challenges. The massive cost of rebuilding the country was draining the state resources. Amidst all the uncertainties, the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, understood the crucial role of the maritime sector in national development. The territorial waters and maritime zones act 1974 was the symbol of Bangabandhu's efforts to reclaim Bangladesh's maritime legacy. Today, Bangladesh is again making a giant leap towards realizing Bangabandhu's dream. Major policies and initiatives have been taken to develop and restructure Bangladesh's maritime economy in a sustainable manner, a testament to the government's interest in integrating maritime sectors in the country's overall growth strategy.

The theme of this issue of PAAL is "*Marine Technologies: Revolutionizing Ocean Knowledge*." The theme has been selected in the quest for knowledge in discovering the ocean and the growing use of sophisticated technologies in the ocean economy and maritime industries. The issue contains a number of articles and opinion pieces on the utility, implications and applications of technologies in maritime sectors. The issue's cover story articulates a general trend of various technologies that lead to ocean exploring and sustainable ocean uses of different marine sectors. Other articles concentrate on subjects such as model of future artificial intelligence-based maritime communication, submarine proliferation in Asia, focused action and policy adoption to achieve the benefit of blue economy, drone surveillance, optimum management of fishery resources through innovative technology, and so on. All the segments written in this issue have emphasized the growing integration of advanced technologies in the maritime economy. Apart from that, the issue accommodates other regular sections: BIMRAD Feats and Marine News. A feature article on Dockyard and Engineering Works Limited is included to give the readers a glimpse into the history and activities of one of the finest maritime institution in the country. Overall, the objective of the issue is to advance the role of technology in maritime policymaking.

Moreover, this issue of PAAL covers a unique story directly from coastal Bangladesh. Our coastal correspondent penned a special report on the impact of climate change in the coastal region. This issue also contains a special story on research collaboration between Bangladesh Navy and Bangladesh Oceanographic Research Institute (BORI).

We are confident that this issue of PAAL would fulfill our objective to impart new knowledge and perspectives to our readers. We also thank our readers for being with us in this troubling time of the pandemic. We wish everyone a safe and healthy life.

Your conscientious opinions and reviews will make our effort worthwhile.

We always consider your opinions valuable and beneficial.

Thanking you
Editorial Board