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ABSTRACT

Man exists in a two dimensional worlds, the techno-sphere and the biosphere. Since the ancient times, demand generated by needs is rising fast with awareness and competition. Therefore innovation and inventions are improved by technology day by day. At present man has reached to an advanced level of skills and experiences. Ship building industry is also one of the oldest industries in the world. During the past, it is evident that some of the raw materials for building of ship were provided by Sri Lanka. However, at present Sri Lankan private sector is blooming up in designing and manufacturing of ships, on the other hand, Sri Lanka Navy (SLN) is also taking part of designing and manufacturing of small and medium sized crafts and building up ships with the assistance of foreign navies. Therefore it is evident that the process of large ship building and development of their required infrastructure are not so far in SLN naval calendar. International Maritime Organization (IMO) is a UN agency which implements standards for safety and security of international shipping as well as for preventing environmental pollution from ships. The IMO 2020 standards are fast approaching. According to that Green ship strategies have to be included in order to stand in line with IMO standards. Therefore embracing the green ship technology by the Sri Lankan naval fleet is a current essential requirement. Further naval ships and crafts are contributing to the marine pollution and cannot absolve themselves from their responsibilities. On the other hand saving energy and finding new technology are vital in present day context. Therefore it is necessary to introduce and execute green ship concept timely. This research paper includes the areas of application of the green ship designing technology in SLN in order to mitigate marine pollution and use the energy efficiency and effectively. The research approach adopted in this thesis is inductive and deductive. Researcher used both qualitative and quantitative data analysis.

Keywords: Green Ships, IMO, Sri Lanka Navy, Marine pollution, Energy, Ship designing technology