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EVALUATING LNG BUNKERING AUTOMATION TECHNOLOGY

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ABSTRACT

Automation technology has gained much traction over the last few years and its applicability to the maritime industry offers diverse opportunities, such as improved bunkering of Liquefied Natural Gas. To showcase this, an analysis is conducted in this research, starting with an outline of the current state of the art, which is then extended to consider future developments and implementations of automated solutions for LNG bunkering. It is argued that automation technologies and their progression in being accepted by industry will help to attain sustainable growth. Thereby, in order to save time and improve staff productivity in terminals there are factors that must be considered. Crucial factors that have been identified and thus, need be taken into account are among other things: fuel transfer flow, which includes the gasification and re-gasification characteristics; ship status; LNG tanks and their capacities; as well as methods of conventional bunkering that are currently applied in practice. In this context, reliable measurements are required to ensure trustworthiness for such risk factors involved in LNG bunkering.

Keywords: LNG bunkering; Risk factors; Automation technology; Building automation system; Marine industry.