PROPOSED MANAGEMENT SYSTEM OF MARINE WORKS

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Abstract

Management of marine construction projects have long been criticized for being inefficient especially in developing countries. At primary stages of this research a survey analysis was conducted to identify the main factors causing deficiencies depending on client perspective. The analysis showed that, change orders, inadequate planning, insufficient site investigation data, security precautions, poor supply and lack of awareness of health and safety precautions are main factors causing inefficiency. This paper aims to apply BIM on marine project management to examine BIM capabilities in solving marine management constrains. Integrated system was developed for this objective which consists of a framework and software to facilitate information flow and close information gaps during planning and construction phases. The proposed system aims to enhance management of time, cost, quality, sustainability and safety by providing augmented reality system to enable users to manage these dimensions together. In addition, the expected enhancement for each dimension was calculated to facilitate judging the proposed system capability for improving previous dimensions. Validating the proposed management system was carried out using a real case study. The results were within expected limits which reflect proposed system capability for achieving paper target.

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