Novel Trends On The Assessment And Management Of Maritime Infrastructures: Outcomes From Giip Project

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Climatic conditions, load, fatigue, aging and others factors causes a deterioration in civil infrastructures. As a consequence, repair and maintenance work actions are needed, being the former considered as more expensive than the latter ones. Indeed, an accurate method for measuring corrosion is a fundamental prerequisite for the detection of damaged areas and for planning an effective repairing of concrete maritime structures. In this article a comparison between two analytical deterioration models, Markov Chains and Neuronal Networks, is presented and applied to predict the results of an electrical potential sensors of infrastructure data set. The proposed methodology benefits from current monitoring practice and have the objective to develop a modular decision support system for integrated asset management, taking into account operational, economic and environmental criteria. This methodology it is part of the ongoing study, part of "GIIP- Intelligent Infrastructure Management".