AUTOMATIC WARNING SYTEM BASED ON AIS DATA IN TANJUNG PERAK PORT SURABAYA

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Abstract
Tanjung Perak Port Surabaya is a port of trade centers in the eastern region especially East Java Province, therefore the ship traffic in and out of the port is high. In this port there are various facilities such as docks, naval bases, Suramadu Bridge, PT Semen Gresik, PT Bogasari, PT Petrochemicals, and Pertamina. An Automatic Warning System (AWS) program are introduced to prevent security threats to the existing facilities at the Tanjung Perak Port due to violation of the provisions that have been set. Automatic Warning System (AWS) is developed by using expert system, based on AIS data. Automatic Warning System (AWS) is used to control the direction of motion and speed of the ship, therefore the program easily detect the ships passing through the port area. By using AIS data it is possible to obtained identity of the ship, ship speed, ship heading, ship coordinates. Simulation system use visual basic program which can be used to make window-based applications. The system is expected to asist the security at Tanjung Perak Port Surabaya.

Key word: AIS, Expert System, Port Facility
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