Vessels Manoeuvring and Docking Call for High Accuracy and Capacity - DockingAssist Solutions

Improved Port Efficiency and Safety Using a Novel Wireless Network and Differential Global Navigation Satellite System Providing Enhanced Vessel Navigation

Maritime transport services are essential in helping the European economy and European companies compete globally. Moreover, shipping and all related maritime industries – sectors that are uncharacteristically dominated by SMEs - are an important source of revenue and jobs in Europe. Despite the fact that the current financial crisis has also affected maritime transport, a doubling of transport volumes is expected over the next 15-20 years. The EU maritime sector has responded via the provision of highly accurate vessel location systems (centimeter-level accuracy) to assist with the critical docking / manoeuvring of container ships, bulk carriers, and other large vessels. Maneuvering such large vessels is not an easy task, especially when marine traffic is increasing. In addition, ports around the world will be placed under significant pressure to increase their capacity and efficiency in the coming years. Current accurate location systems suffer from limited range (only usable in the immediate vicinity of the dock), low efficiency and relatively high cost.

DockingAssistis a cost-effective location system, providing the necessary centimeter positioning/speed accuracy, but covering the complete port / harbour zone, there by providing efficient and safe maneuvering within the entire port area. This enhances vessel trajectory and facilitates the constant monitoring for moored/docked vessels. The DockingAssist project started in November 2011 and will be finished in October 2013. The prototype has been developed and successfully tested/demonstrated at Port of Cork, Ireland in several trials and demonstrations. The performance is very promising and the SME participants are very excited and will exploit this technology for their future product lines.

The DockingAssist system consists of two main parts: (i) a DockingAssist Base

Station (BS) installed at the harbour, and (ii) a Portable Pilot Unit (PPU) installed on the ship(s). The portable unit is used by the expert pilot in charge of docking all the vessels at the port without requiring any expensive berthing systems.

The DockingAssist project has the purpose of improving the competitiveness of both maritime equipments producer SMEs and the consortium end-user partner (Port of Cork). During the project life, we have successfully proved the principal idea of DockingAssist and transferred the technology from RTD performers to the consortium SMEs. The project has been disseminated by all partners nationally and internationally through workshop, exhibition, press, newspaper, radio, social media etc. In May 2013, the DockingAssist project participated in the EPA (European Projects Awards) 2013 event, and was finally nominated as one of the 3 finalists in the macro-category ONGOING Project.

The solution of the DockingAssist project has a massive economic impact on the SMEs in the shipping sector, as it will result in improved port traffic management and a reduction in operating expenses, CO2 emissions and fuel usage, lessening the environmental impact of shipping. The improved traffic efficiency will increase throughput in European ports with a minimum investment. Consequently, the related SMEs will also increase their business, taking advantage of this growth of goods, indirectly benefiting from the reduced operational vessel trip expenses.

More information about the project can be found on http://www.dockingassist.eu

Countries

Austria, Belgium, Bulgaria, Cyprus, Czechia, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Hungary, Ireland, Italy, Lithuania, Luxembourg, Latvia, Malta, Netherlands, Poland, Portugal, Romania, Sweden, Slovenia, United Kingdom

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