

# **Abstract**

**Mohamed A Abdelfattah Mohamed Omar**

## **Advanced Navigation System (ANS) in the Mediterranean Sea “Regional Project for Management Control System”**

Mediterranean Sea is a major oil and gas transportation route accommodating a large number of ships crossing the sea annually it is an area in which the oil and gas industry is highly active with several important producers located in the region. Despite increased environmental awareness and international conventions on pollution, marine pollution continues to be an environmental issue the oil well explosion was a tragic accident that preventable with different systems and procedures in place. Going forward, the safety of workers and the environment must be of paramount importance, and a guiding principal for all in the regulation, exploration, and production of oil and gas. New systems and procedures must now be described, implemented and regulated, however, in a way that is reliable and transparent. This will allow the nation's offshore oil and natural gas industry to return to work in a way that will preserve thousands of critical jobs, in a region just beginning to recover from unprecedented hardship. Advancements in information technology have significant impacts on the shipping industry. Many of the modern navigational technologies and data are amenable to computerization. A key hydrographic survey within the Traffic Separation Scheme (TSS) of the Straits of Malacca and Singapore, as part of the Marine Electronic Highway (MEH) Demonstration Project, a regional project of the Global Environment Facility (GEF)/World Bank, which International Maritime Organization (IMO) is executing. The demonstration project aims to link shore-based marine information and communication infrastructure with the corresponding navigational and communication facilities aboard transiting ships, while being also capable of incorporating marine environmental management systems. The deployment of information systems in more mature applications such as in a Marine Electronic Highway could lead to the integration of maritime safety technologies with marine environment management and protection systems resulting in improved performance, new capabilities and innovative applications. MEH provides a host of potential opportunities and benefits not only for the shipping industry, but also to a variety of users. Its application may be extended to environmental management programs, search-and-rescue operations, anti-piracy program, environmental impact assessment, and fisheries/aquaculture management, among others. The use of such experience to execute a similar project as Malacca Strait MEH in the Mediterranean Sea can be considered an important need for such strategic place.