Abstract

The continued development of the technologies applied to ship systems has pushed the shipbuilding industry to shipbuilding, with fully modernized automation systems that allow them to be handled and constantly monitored in real time from everywhere on the planet.

So the main purpose of this paper is to present the historical evolution of automation systems in shipping and to analyze both the existing technologies that take place in autonomous ships and the future trends. However, the potential risks-constraints underlying the use of this technology will be analyzed, as well as the important elements that should be given special importance so that the community can obtain a fully clarified picture of the particularly brilliant and promising technology of autonomous ships.

The results of this paper provide the basis for further analysis of future autonomous naval systems and contribute decisively both to the promotion of autonomous shipping and to the further improvement and development of independent maritime systems by assessing possible
threats to avoid accidents.

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Index Terms

Computer Science Information Sciences

Keywords

Autonomous ship, Risk Analysis, Autonomy levels, Reliability of autonomous systems, Shore Control Centrer, Remote Operator, Cybersecurity, Maritime test area, Autonomous Eco-shipping.