

Resilience Engineering and the Fifth Age of Safety



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Dr (Capt) Suresh Bhardwaj has 40 years of work experience, which includes 5 years as Master and in command of various types of ships of the merchant marine; subsequently 25 years of multi-disciplinary shore experience in senior and top management positions spanning the marine industry verticals of commercial operations, consultancy, academia and research.

He pursued funded Doctoral research in Denmark and UK and a Post-doctoral thesis funded from Greece. He is on the Board of Advisors of Svendborg International Maritime Academy of Denmark and on the Board of Research of Indian Maritime University, as well as Adjunct Professor with Australian Maritime Academy, University of Tasmania, Australia.

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Abstract:

This paper challenges some traditional fundamental concepts of accident dynamics, accident prevention, and accident analysis. The purpose is to emphasize that improvement analysts need to understand the theoretical bases of safety management and accident analysis, and the practical application of Integrated Safety Management framework. The increasing complexity in highly technological systems is leading to potentially disastrous failure modes and new kinds of safety issues. Traditional accident modelling approaches are not adequate to analyse accidents that occur in modern socio-technical systems, where accident causation is not the result of an individual component failure or human error.