Record Nr. UNISALENTO991003231529707536 Autore Pillay, Anand Titolo Technology and safety of marine systems [e-book] / Anand Pillay, Jin Wang Pubbl/distr/stampa Amsterdam; Boston: Elsevier Science, 2003 **ISBN** 9780080441481 0080441483 Descrizione fisica 320 p.: ill.; 25 cm Collana Elsevier ocean engineering book series; v. 7 Altri autori (Persone) Wang, J. (Jin) Disciplina 363.1237 Soggetti Ships - Safety measures Ships - Safety regulations Ships - Inspection Electronic books. Lingua di pubblicazione Inglese **Formato** Risorsa elettronica Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index Nota di contenuto Introduction -- Ship safety and accident statistics -- Safety analysis techniques -- Formal safety assessment of ships and its relation to offshore safety case approach -- Formal safety assessment -- Risk assessment using fuzzy set approach -- Modified failure mode and effects analysis -- Maintenance modelling -- Human error assessment and decision making using analystical hierarchy processing -- Three novel risk modelling and decision making techniques -- Conclusions -- Appendix 1. Code of practice for small fishing vessels -- Appendix 2. Fishing vessel (safety provisions) safety rules 1975 -- Influence diagram Sommario/riassunto Traditionally society has regulated hazardous industries by detailed references to engineering codes, standards and hardware requirements. These days a risk-based approach is adopted. Risk analysis involves identifying hazards, categorizing the risks, and

references to engineering codes, standards and hardware requirements. These days a risk-based approach is adopted. Risk analysis involves identifying hazards, categorizing the risks, and providing the necessary decision support to determine the necessary arrangements and measures to reach a "safe" yet economical operating level. When adopting such an approach the abundance of techniques available to express risk levels can often prove confusing and inadequate. This highly practical guide to safety and risk analysis in

Marine Systems not only adds to the current techniques available, but more importantly identifies instances where traditional techniques fall short. Uncertainties that manifest within risk analysis are highlighted and alternative solutions presented. In addition to risk analysis techniques this book addresses influencing elements including: reliability, Maintenance Decision making and Human error. The highly practical approach of this title ensures it is accessible to the widest possible audience