On The Comparative Seakeeping Analysis In Irregular Waves

This handbook is the definitive reference for the interdisciplinary field that is ocean engineering. It integrates the coverage of fundamental and applied material and encompasses a diverse spectrum of systems, concepts and operations in the maritime environment, as well as providing a comprehensive update on contemporary, leading-edge ocean technologies. Coverage includes an overview on the fundamentals of ocean science, ocean signals and instrumentation, coastal structures, developments in ocean energy technologies and ocean vehicles and automation. It aims at practitioners in a range of offshore industries and naval establishments as well as academic researchers and graduate students in ocean, coastal, offshore and marine engineering and naval architecture. The Springer Handbook of Ocean Engineering is organized in five parts: Part A: Fundamentals, Part B: Autonomous Ocean Vehicles, Subsystems and Control, Part C: Coastal Design, Part D: Offshore Technologies, Part E: Energy Conversion

Sustainable Maritime Transportation and Exploitation of Sea Resources covers the most updated aspects of maritime transports and of coastal and sea resources exploitation, with a focus on (but not limited to) the Mediterranean area. Vessels for transportation are analysed from the viewpoint of ship design in terms of hydrodynamic, structural and plant optimisation, as well as from the perspective of construction, maintenance, operation and logistics. The exploitation of marine and coastal resources is covered in terms of fishing, aquaculture and renewable energy production as well as of subsea resources extraction. The characterisation of the marine environment is seen under the twofold perspective of providing reference loads and conditions for the design of means for the resources exploitation, but also of setting limits to the design in order to preserve the natural ambient and minimise the impact of anthropogenic activities related to both transportation and exploitation. Efficiency, reliability, safety and sustainability of sea- and Mediterranean-related human activities are the focus throughout the book. Sustainable Maritime Transportation and Exploitation of Sea Resources will be of interest to technical operators in the various areas involved (shipbuilding and ship-owner companies, research organisations, universities, certifying bodies), but will also serve as an updated reference work for government agencies and other institutional and educational bodies.

The Newport Medieval Ship is the most important late-medieval merchant vessel yet recovered. Built c.1450 in northern Spain, it foundered at Newport twenty years later while undergoing repairs. Since its discovery in 2002, further investigations have transformed historians' understanding of fifteenth-century ship technology. With plans in place to make the ship the centrepiece for a permanent exhibition in Newport, this volume interprets the vessel, to enable visitors, students and researchers to understand the ship and the world from which it came. The volume contains eleven chapters, written by leading maritime archaeologists and historians. Together, they consider its significance and locate the vessel within its commercial, political and social environment.

February issue includes Appendix entitled Directory of United States Government periodicals and subscription publications; September issue includes List of depository libraries; June and December issues include semiannual index

This design history of post-war British warship development, based on both declassified documentation and personal experience, is the fourth and final volume in the author's masterly account of development of Royal Navy's ships from the 1850s to the Falklands War. In this volume the author covers the period in which he himself worked as a Naval Constructor, while this personal knowledge is augmented by George Moore's in-depth archival research on recently declassified material. The RN fleet in 1945 was old and worn out, while new threats and technologies, and post-war austerity called for new solutions. How designers responded to these unprecedented challenges is the central theme of this book. It covers the ambitious plans for the conversion or replacement of the bigger ships; looks at all the new construction, from aircraft carriers, through destroyers and frigates, to submarines (including nuclear and strategic), to minesweepers and small craft. The authors pay particular attention to the innovations introduced, and analyses the impact of the Falklands War. At the start of the twenty-first century the Royal Navy is still a powerful and potent force with new and a number of innovative classes, both surface and sub-surface, coming on stream. This book offers a fascinating insight into how the post-war fleet developed and adapted to the changing role of the Navy.

Hydrodynamics of High-Speed Marine Vehicles, first published in 2006, discusses the three main categories of high-speed marine vehicles - vessels supported by submerged hulls, air cushions or foils. The wave environment, resistance, propulsion, seakeeping, sea loads and manoeuvring are extensively covered based on rational and simplified methods. Links to automatic control and structural mechanics are emphasized. A detailed description of waterjet propulsion is given and the effect of water depth on wash, resistance, sinkage and trim is discussed. Chapter topics include resistance and wash; slamming; air cushion-supported vessels, including a detailed discussion of wave-excited resonant oscillations in air cushion; and hydrofoil vessels. The book contains numerous illustrations, examples and exercises.

Masters Theses in the Pure and Applied Sciences was first conceived, published, SIld disseminated by the Center for Information and Numerical Data Analysis and Synthesis (CINDAS) * at Purdue University in 1957, starting its coverage of theses with the academic year 1955. Beginning with Volume 13, the printing and dissemination phases of the activity were transferred to University Microfilms/Xerox of Ann Arbor, Michigan, with the thought that such an arrangement would be more beneficial to the academic and general scientific and technical community. After five years of this joint undertaking we had concluded that it was in the interest of all con cerned if the printing and distribution of the volumes were handled by an interna and broader dissemination. tional publishing house to assure improved service Hence, starting with Volume 18, Masters Theses in the Pure and Applied Sciences has been disseminated on a worldwide basis by Plenum Publishing Cor poration of New York, and in the same year the coverage was broadened to include Canadian universities. All back issues can also be ordered from Plenum. We have reported in Volume 30 (thesis year 1985) a total of 12,400 theses titles from 26 Canadian and 186 United States universities. We are sure that this broader base for these titles reported will greatly enhance the value of this important annual reference work.

In 1974, a scientific conference covering marine automation group and large vessels issues was organized under the patronage of the Technical Naval Studies Centre (CETENA) and the Italian National Research Council (CNR). A later collaboration with the Marine Technical Association (ATENA) led to the renaming of the conference as NAV, extending the topics covered to the technical field previously covered by ATENA national conferences. The NAV conference is now held every 3 years, and attracts specialists from all over the world. This book presents the proceedings of NAV 2018, held in Trieste, Italy, in June 2018. The book

contains 70 scientific papers, 35 technical papers and 16 reviews, and subjects covered include: comfort on board; conceptual and practical ship design; deep sea mining and marine robotics; protection of the environment; renewable marine energy; design and engineering of offshore vessels; digitalization, unmanned vehicles and cyber security; yacht and pleasure craft design and inland waterway vessels. With its comprehensive coverage of scientific and technical maritime issues, the book will be of interest to all those involved in this important industry.

This report is the result of an examination of the feasibility of isolating contaminated dredged material on the abyssal seafloor. The focus is on the technical and environmental factors that constrain the considerations of feasibility. The sources of the materials are assumed to be in U.S. coastal waters. A thorough conceptual design of a dredging to abyssal deposition system is analyzed with regard to each subsystem and to the entire operational concept. These subsystems include: (1) a low leakage dredge, (2) equipment for material handling and loading into geosynthetic fabric containers (GFCs), (3) the barge for transport and navigation, and (4) the subsystem for releasing the GFCs to sink to the abyssal seafloor isolation site. Particular consideration is given to the exclusion of dredged material from the ocean's productive zone in the upper 1000 m; this exclusion requires highly stable, reliable navigation and seakeeping by the barge transporter and control of the configuration of GFCs within it. New theoretical models and previous empirical results are used to predict GFC motion through the water column and response to impact on the abyssal seafloor, including the case of potential release of contaminated, turbid water at impact. A geochemical model of the temporal and spatial evolution of the post-deposition geochemistry of the water column, the GFC contents and the sediments below is developed and analyzed; the results show that release of metals into the ocean waters would be insignificant. A model of the biological impacts of the introduction of dredged material in the abyssal environment is used to infer that: (1) biological diversity in the vicinity of the deposition site will be diminished, (2) biomass will be increased by dominance of a few fast growing, opportunistic benthic species, and (3) concentrations of trace elements and organic contgt\h1

Each number is the catalogue of a specific school or college of the University.

Water covers more than 70% of the Earth’s surface, making maritime influences an important consideration in evaluating modern global economic systems. Therefore, the efficient design, operation, and management of maritime systems are important for sustainable marine technology development and green innovation. Marine Technology and Sustainable Development: Green Innovations examines theoretical frameworks and empirical research in the maritime industry, evaluating new technologies, methodologies, and practices against a backdrop of sustainability. This critical reference encourages the discussion and exploration of diverse opinions on the benefits and challenges of new marine technologies essential for marine and maritime professionals, researchers, and scholars hoping to improve their understanding of environmental considerations in preserving the world’s oceanic resources.

Maritime Engineering and Technology includes the papers from the 1st International Conference on Maritime Technology and Engineering (MARTECH 2011, Lisbon, Portugal, 10-12 May 2011). MARTECH 2011 was held to commemorate 100 years of the Instituto Superior Tico (IST) in Lisbon, and the contributions in the present volume reflect the

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