

Encyclopedia of Ocean Engineering

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920529000&lokasi=lokal>

Abstrak

This encyclopedia adopts a wider definition for the concept of ocean engineering. Specifically, it includes (1) offshore engineering: fixed and floating offshore oil and gas platforms; pipelines and risers; cables and moorings; buoy technology; foundation engineering; ocean mining; marine and offshore renewable energy; aquaculture engineering; and subsea engineering; (2) naval architecture: ship and special marine vehicle design; intact and damaged stability; technology for energy efficiency and green shipping; ship production technology; decommissioning and recycling; (3) polar and Arctic Engineering: ice mechanics; ice-structure interaction; polar operations; polar design; environmental protection; (4) underwater technologies: AUV/ROV design; AUV/ROV hydrodynamics; maneuvering and control; and underwater-specific communicating and sensing systems for AUV/ROVs.

It summarizes the A–Z of the background and application knowledge of ocean engineering for use by ocean scientists and ocean engineers as well as nonspecialists such as engineers and scientists from all disciplines, economists, students, and politicians. Ocean engineering theories, ocean devices and equipment, ocean design and operation technologies are described by international experts, many from industry and each entry offers an introduction and references for further study, making current technology and operating practices available for future generations to learn from. The book also furthers our understanding of the current state of the art, leading to new and more efficient technologies with breakthroughs from new theory and materials.

As the land resources approach the exploitation limit, ocean resources are becoming the next choice for the sustainable development. As such, ocean engineering is vital in the 21st century.