Analysis And Design Of Marine Structures

This is a theoretical and practical guide for fatigue design of marine structures including sailing ships and offshore oil structures.
Analysis and Design of Marine Structures V contains the papers presented at MARSTRUCT 2015, the 5th International Conference on Marine Structures (Southampton, UK, 25-27 March 2015). The MARSTRUCT series of conferences started in Glasgow, UK in 2007, the second event of the series took place in Lisbon, Portugal (2009), while the third was in Hambur
Progress in the Analysis and Design of Marine Structures collects the contributions presented at MARSTRUCT 2017, the 6th International Conference on Marine Structures (Lisbon, Portugal, 8-10 May 2017). The MARSTRUCT series of Conferences started in Glasgow, UK in 2007, the second event of the series having taken place in Lisbon, Portugal in March 2009, the third in Hamburg, Germany in March 2011, the fourth in Espoo, Finland in March 2013, and the fifth in Southampton, UK in March 2015. This Conference series deals with Ship and Offshore Structures, addressing topics in the areas of: - Methods and Tools for Loads and Load Effects - Methods and Tools for Strength Assessment - Experimental Analysis of Structures - Materials and Fabrication of Structures - Methods and Tools for Structural Design and Optimisation, and - Structural Reliability, Safety and Environmental Protection Progress in the Analysis and Design of Marine Structures is essential reading for academics, engineers and all professionals involved in the design of marine and offshore structures.
Design Principles of Ships and Marine Structures
Application of computerized methods in analysis and design of ship structures, marine structures, and machinery
Progress in the Analysis and Design of Marine Structures
Procedures for a Long Term Retention Data for the Analysis and Design of a Rudder for a Marine Vessel
Tree Biotechnology

Trends in the Analysis and Design of Marine Structures is a collection of the papers presented at MARSTRUCT 2019, the 7th International Conference on Marine Structures held in Dubrovnik, Croatia, 6-8 May 2019. The MARSTRUCT series of Conferences started in Glasgow, UK in 2007, the second event of the series having taken place in Lisbon, Portugal in March 2009, the third in Hamburg, Germany in March 2011, the fourth in Espoo, Finland in March 2013, the fifth in Southampton, UK in March 2015, and the sixth in Lisbon, Portugal in May 2017. This Conference series specialises in dealing with Ships and Offshore Structures, addressing topics in the fields of: - Methods and Tools for Loads and Load Effects - Methods and Tools for Strength Assessment - Experimental Analysis of Structures - Materials and Fabrication of Structures - Methods and Tools for Structural Design and Optimisation - Structural Reliability, Safety and Environmental Protection. Trends in the Analysis and Design of Marine Structures is an essential document for academics, engineers and all professionals involved in the area of analysis and design of Ships and Offshore Structures. About the series: The 'Proceedings in Marine Technology and Ocean Engineering' series is devoted to the publication of proceedings of peer-reviewed international conferences dealing with various aspects of 'Marine Technology and Ocean Engineering'. The Series includes the proceedings of the following conferences: the International Maritime Association of the Mediterranean (IMAM) conferences, the Marine Structures (MARSTRUCT) conferences, the Renewable Energies Offshore (RENEW) conferences and the Maritime Technology (MARTECH) conferences. The 'Marine Technology and Ocean Engineering' series is also open to new conferences that cover topics on the sustainable exploration and exploitation of marine resources in various fields, such as maritime transport and ports, usage of the ocean including coastal areas, nautical activities, the exploration and exploitation of mineral resources, the protection of the marine environment and its resources, and risk analysis, safety and reliability. The aim of the series is to stimulate advanced education and training through the wide dissemination of the results of scientific research.
This book combines an account of composite material characteristics, related to the marine environment, with a discussion of structural analysis methods and design procedures.
Due in part to a growing demand for offshore oil and gas exploration, the development of marine structures that initially started onshore is now moving into deeper offshore areas. Designers are discovering a need to revisit basic concepts as they anticipate the response behavior of marine structures to increased water depths. Providing a simplified approach to the subject, Advanced Marine Structures explains the fundamentals and advanced concepts of marine architecture introduces various types of offshore platforms, and outlines the different stages of marine structure analysis and design. Written from a structural engineering perspective, this book focuses on structures constructed for offshore oil and gas exploration, various environmental loads, ultimate load design, fluid-structure interaction, fatigue, and fracture. It also offers detailed descriptions of different types of structural forms, functions and limitations of offshore platforms and explains how different loads act on each. In addition, the text incorporates examples and application problems to illustrate the use of experimental, numerical, and analytical studies in the design and development of marine structures, and reviews relevant literature on wave interaction and porous cylinders. This book: Focuses on structural reliability Deliberates on fracture and fatigue and examines their application in marine structures Introduces ideas on the retrofit and renovation of marine structures Examines the strength analysis of offshore structures and structural members Advanced Marine Structures examines the design of offshore structures from a structural engineering perspective and explains the design methodologies and guidelines needed for the progressive conceptualization and design of advanced marine structures.
Fatigue Design of Marine Structures
Marine Engineering Economics and Cost Analysis
Application of Computerized Methods in Analysis and Design of Ship Structures, Marine Structures and Machinery
Analysis and Design of Marine Structures V

Marine Engineering Economics and Cost Analysis is intended for students and practitioners of ship design, shipbuilding, and ship operations who want to understand and apply the concepts of engineering

economics to routine engineering decisions. Computer software is included to aid in completing the analyses required. "To my knowledge this is the first text published during my fifty-year career...that deals with the methods of economic evaluation of maritime decision alternatives from an engineering viewpoint....This book applies engineering economics and cost analysis to the maritime industry and sets forth in a logical sequence the method to reach the most efficient vessel from both a cost and capacity-required approach."--from the foreword by Captain Warren G. Leback, former maritime administrator.

'Analysis and Design of Marine Structures' explores recent developments in methods and modelling procedures for structural assessment of marine structures: - Methods and tools for establishing loads and load effects; - Methods and tools for strength assessment; - Materials and fabrication of structures; - Methods and tools for structural design and optimisation; - Structural reliability, safety and environment protection. The book is a valuable reference source for academics, engineers and professionals involved in marine structures and design of ship and offshore structures.

Developments in the Analysis and Design of Marine Structures is a collection of papers presented at MARSTRUCT 2021, the 8th International Conference on Marine Structures (by remote transmission, 7-9 June 2021, and is essential reading for academics, engineers and professionals involved in the design of marine and offshore structures.

Application of Computerized Methods in Analysis and Design of Ship Structures, Marine Structures, and Machinery

Analysis and Design of Marine Structures

Environmental Design and Analysis in Marine Environmental Sampling

Dynamics

Design of Marine Risers with Functionally Graded Materials

The Definitive Reference for Designers and Design Students A solid grasp of the fundamentals of materials, along with a thorough understanding of load and design techniques, provides the components needed to complete a marine platform design. Design Principles of Ships and Marine Structures details every facet of ship design and design integration, and highlights the design aspects that must be put together to create an integrated whole product. This book discusses naval architecture and marine engineering applications and principles relevant to the design of various systems, examines advanced numerical techniques that can be applied to maritime design procedure at the concept design stage, and offers a comprehensive approach to the subject of ship design. Covers the Entire Sphere of Marine Design The book begins with an introduction to marine design and the marine environment, describing many of the marine products that are used for transportation, defense and the exploitation of marine resources. It also discusses stability issues relevant to ship design, as well as hydrodynamic aspects of resistance, propulsion, sea keeping and maneuvering, and their effects on design. In addition to covering the various systems and sub-systems that go into making a complex product to be used in maritime environment, the author explains engineering economics and its application in ship design, and provides examples wherever necessary. Written by an author with more than 35 years of teaching experience, this book: Describes various design methodologies such as sequential design process with the application of concurrent engineering and set based design factors in the use of computer-aided design techniques Highlights the shape design methodology of ship forms and layout design principles Considers design aspects relative to safety and risk assessment Introduces the design for production aspects in marine product development Discusses design principles for sustainability Explains the principles of numerical optimization for decision-making Design Principles of Ships and Marine Structures focuses on ship design efficiency, safety, sustainability, production, and management, and appeals to students and design professionals in the field of shipping, shipbuilding and offshore engineering.

For a structure as large ans as complex as a ship there are three levels of structural design, the second and most central of which is the subject of this book. Rationally-based design is design from first principles using the tools of modern engineering science: computer and the methods of structural analysis and optimization which computers have made possible. Thus, the rationally-based approach is ideally suited for preliminary structural design, and it is this approach and this level of design that is the subject of this book.

Marine Propellers and Propulsion, Fourth Edition, offers comprehensive, cutting edge coverage to equip marine engineers, naval architects or anyone involved in propulsion and hydrodynamics with essential job knowledge. Propulsion technology is a complex, multidisciplinary topic with design, construction, operational and research implications. Drawing on experience from a long and varied career in consulting, research, design and technical investigation, John Carlton examines hydrodynamic theory, materials and mechanical considerations, and design, operation and performance. Connecting essential theory to practical problems in design, analysis and operational efficiency, the book is an invaluable resource, packed with hard-won insights, detailed specifications and data. Features comprehensive coverage of marine propellers, fully updated and revised, with new chapters on propulsion in ice and high speed propellers Includes enhanced content on full-scale trials, propeller materials, propeller blade vibration, operational problems and much more Synthesizes otherwise disparate material on the theory and practice of propulsion technology from the past 40 years' development, including the latest developments in improving efficiency Written by a leading expert on propeller technology, essential for students, marine engineers and naval architects involved in propulsion and hydrodynamics

Seminar, Oslo, 8.-9.11.1972. Papers

Ship Structural Analysis and Design

Design and Installation of Marine Pipelines

including CD-ROM

STEP Documentation

Trends in the Analysis and Design of Marine StructuresProceedings of the 7th International Conference on Marine Structures (MARSTRUCT 2019,

Dubrovnik, Croatia, 6-8 May 2019)CRC Press

As a method of joining with economic, performance-related and environmental advantages over traditional welding in some applications, adhesive bonding of joints in the marine environment is increasingly gaining popularity. Adhesives in marine engineering provides an invaluable overview of the design and use of adhesively-bonded joints in this challenging environment. After an introduction to the use of adhesives in marine and offshore engineering, part one focuses on adhesive solution design and analysis. The process of selecting adhesives for marine environments is explored, followed by chapters discussing the specific design of adhesively-bonded joints for ship applications and wind turbines. Predicting the failure of bonded structural joints in marine engineering is also considered. Part two reviews testing the mechanical, thermal and chemical properties of adhesives for marine environments together with the moisture resistance and durability of adhesives for marine environments. With its distinguished editor and international team of expert contributors, Adhesives in marine engineering is an essential guide for all those involved in the design, production and maintenance of bonded structures in the marine environment, as well as proving a key source for academic researchers in the field. Provides an invaluable overview of the design and use of adhesively-bonded joints in marine environments Discusses the use of adhesives in marine and offshore engineering, adhesive solution design and analysis, and the design of adhesively-bonded joints for ship applications and wine turbines, among other topics Reviews testing the mechanical, thermal and chemical properties of adhesives for marine environments, together with the moisture resistance and durability of these adhesives

Design of Marine Risers with Functionally Graded Materials focuses on the application and use of marine risers fabricated with functionally graded materials (FGM) in ocean environments. Chapters cover the various types of marine risers available, common problems (corrosion), their fabrication and manufacturing, and their application and use in marine risers. A functionally graded materials mould is then subsequently investigated by various structural and metallurgical examinations to assess its suitability as an alternate material in the marine environment. Several characteristics of the newly developed FGM are compared with other conventional materials to explicitly highlight the superiority of the newly developed FGM. Further chapters focus on novel design methods, such as VIV suppression systems for risers with detailed experimental investigations carried out on cylinders and a chapter on advanced materials, including titanium and composites and their application and use in the marine environment. Covers all types of marine risers, materials, properties and behavior Features advances in design for functionally graded materials in marine risers and offshore structures Includes new additive manufacturing techniques and the design of vortex induced vibrations in marine risers

Advanced Marine Structures

Proceedings of the 8th International Conference on Marine Structures (Marstruct 2021, 7-9 June 2021, Trondheim, Norway)

Geomechanics of Marine Anchors

Proceedings of the 6th International Conference on Marine Structures (MARSTRUCT 2017), May 8-10, 2017, Lisbon, Portugal

Integrity Analysis and Design of Welded Marine Structures

Developments in the Analysis and Design of Marine Structures is a collection of papers presented at MARSTRUCT 2021, the 8th International Conference on Marine Structures (by remote transmission, 7-9 June 2021, organised by the Department of Marine Technology of the Norwegian University of Science and Technology, Trondheim, Norway), and is essential reading for academics, engineers and professionals involved in the design of marine and offshore structures. The MARSTRUCT Conference series deals with Ship and Offshore Structures, addressing topics in the fields of: - Methods and Tools for Loads and Load Effects; - Methods and Tools for Strength Assessment; - Experimental Analysis of Structures; - Materials and Fabrication of Structures; - Methods and Tools for Structural Design and Optimisation; and - Structural Reliability, Safety and Environmental Protection. The MARSTRUCT conferences series of started in Glasgow, UK in 2007, the second event of the series took place in Lisbon, Portugal in March 2009, the third in Hamburg, Germany in March 2011, the fourth in Espoo, Finland in March 2013, the fifth in Southampton, UK in March 2015, the sixth in Lisbon, Portugal in May 2017, and the seventh in Drubovnik, Croatia in May 2019. The "Proceedings in Marine Technology and Ocean Engineering" series is dedicated to the publication of proceedings of peer-reviewed international conferences dealing with various aspects of "Marine Technology and Ocean Engineering". The Series includes the proceedings of the following conferences: the International Maritime Association of the Mediterranean (IMAM) conferences, the Marine Structures (MARSTRUCT) conferences, the Renewable Energies Offshore (RENEW) conferences and the Maritime Technology (MARTECH) conferences. The "Marine Technology and Ocean Engineering" series is also open to new conferences that cover topics on the sustainable exploration and exploitation of marine resources in various fields, such as maritime transport and ports, usage of the ocean including coastal areas, nautical activities, the exploration and exploitation of mineral resources, the protection of the marine environment and its resources, and risk analysis, safety and reliability. The aim of the series is to stimulate advanced education and training through the wide dissemination of the results of scientific research.

Marine Structural Design, Second Edition, is a wide-ranging, practical guide to marine structural analysis and design, describing in detail the application of modern structural engineering principles to marine and offshore structures. Organized in five parts, the book covers basic structural design principles, strength, fatigue and fracture, and reliability and risk assessment, providing all the knowledge needed for limit-state design and re-assessment of existing structures. Updates to this edition include new chapters on structural health monitoring and risk-based decision-making, arctic marine structural development, and the addition of new LNG ship topics, including composite materials and structures, uncertainty analysis, and green ship concepts. Provides the structural design principles, background theory, and know-how needed for marine and offshore structural design by analysis Covers strength, fatigue and fracture, reliability, and risk assessment together in one resource, emphasizing practical considerations and applications Updates to this edition include new chapters on structural health monitoring and risk-based decision making, and new content on arctic marine structural design

Marine Design XIII collects the contributions to the 13th International Marine Design Conference (IMDC 2018, Espoo, Finland, 10-14 June 2018). The aim of this IMDC series of conferences is to promote all aspects of marine design as an engineering discipline. The focus is on key design challenges and opportunities in the area of current maritime technologies and markets, with special emphasis on: □ Challenges in merging ship design and marine applications of experience-based industrial design □ Digitalisation as technological enabler for stronger link between efficient design, operations and maintenance in future □ Emerging technologies and their impact on future designs □ Cruise ship and icebreaker designs including fleet compositions to meet new market demands To reflect on the conference focus, Marine Design XIII covers the following research topic series: □State of art ship design principles - education, design

methodology, structural design, hydrodynamic design; Cutting edge ship designs and operations - ship concept design, risk and safety, arctic design, autonomous ships; Energy efficiency and propulsions - energy efficiency, hull form design, propulsion equipment design; Wider marine designs and practices - navy ships, offshore and wind farms and production. Marine Design XIII contains 2 state-of-the-art reports on design methodologies and cruise ships design, and 4 keynote papers on new directions for vessel design practices and tools, digital maritime traffic, naval ship designs, and new tanker design for arctic. Marine Design XIII will be of interest to academics and professionals in maritime technologies and marine design.

Stochastic Dynamics of Marine Structures

Marine Structural Design Calculations

Marine Structural Design and Analysis, Second Edition

Evaluation of marine structures education in North America

Proceedings of the 8th International Conference on Marine Structures (MARSTRUCT 2021, 7-9 June 2021, Trondheim, Norway)

The perfect guide for veteran structural engineers or for engineers just entering the field of offshore design and construction, Marine Structural Design Calculations offers structural and geotechnical engineers a multitude of worked-out marine structural construction and design calculations. Each calculation is discussed in a concise, easy-to-understand manner that provides an authoritative guide for selecting the right formula and solving even the most difficult design calculation. Calculation methods for all areas of marine structural design and construction are presented and practical solutions are provided. Theories, principles, and practices are summarized. The concentration focuses on formula selection and problem solving. A “quick look up guide , Marine Structural Design Calculations includes both fps and SI units and is divided into categories such as Project Management for Marine Structures; Marine Structures Loads and Strength; Marine Structure Platform Design; and Geotechnical Data and Pile Design. The calculations are based on industry code and standards like American Society of Civil Engineers and American Society of Mechanical Engineers, as well as institutions like the American Petroleum Institute and the US Coast Guard. Case studies and worked examples are included throughout the book. Calculations are based on industry code and standards such as American Society of Civil Engineers and American Society of Mechanical Engineers Complete chapter on modeling using SACS software and PDMS software Includes over 300 marine structural construction and design calculations Worked-out examples and case studies are provided throughout the book Includes a number of checklists, design schematics and data tables

For students and professionals, this covers theory and methods for stochastic modelling and analysis of marine structures under environmental loads.

The early development of the screw propeller. Propeller geometry. The propeller environment. The ship wake field, propeller perfomance characteristics.

Adhesives in Marine Engineering

Marine structures [electronic journal].

Design of Marine Facilities for the Berthing, Mooring, and Repair of Vessels

Developments in the Analysis and Design of Marine Structures

Analysis and Design of Plated Structures

Analysis and Design of Marine Structures V contains the papers presented at MARSTRUCT 2015, the 5th International Conference on Marine Structures (Southampton, UK, 25-27 March 2015). The MARSTRUCT series of conferences started in Glasgow, UK in 2007, the second event of the series took place in Lisbon, Portugal (2009), while the third was in Hamburg, Germany (2011), and the fourth in Espoo, Finland (2013). This conference series deals with Ship and Offshore Structures, addressing the following topics: - Methods and Tools for Loads and Load Effects - Methods and Tools for Strength Assessment; Experimental Analysis of Structures - Materials and Fabrication of Structures - Methods and Tools for Structural Design and Optimisation - Structural Reliability, Safety and Environmental Protection This book is essential reading for academics, engineers and all professionals involved in the area of design of marine and offshore structures.

This is volume 1 of a 2-volume set. Marine Design XIII collects the contributions to the 13th International Marine Design Conference (IMDC 2018, Espoo, Finland, 10-14 June 2018). The aim of this IMDC series of conferences is to promote all aspects of marine design as an engineering discipline. The focus is on key design challenges and opportunities in the area of current maritime technologies and markets, with special emphasis on: • Challenges in merging ship design and marine applications of experience-based industrial design • Digitalisation as technological enabler for stronger link between efficient design, operations and maintenance in future • Emerging technologies and their impact on future designs • Cruise ship and icebreaker designs including fleet compositions to meet new market demands To reflect on the conference focus, Marine Design XIII covers the following research topic series: •State of art ship design principles - education, design methodology, structural design, hydrodynamic design; •Cutting edge ship designs and operations - ship concept design, risk and safety, arctic design, autonomous ships; •Energy efficiency and propulsions - energy efficiency, hull form design, propulsion equipment design; •Wider marine designs and practices - navy ships, offshore and wind farms and production. Marine Design XIII contains 2 state-of-the-art reports on design methodologies and cruise ships design, and 4 keynote papers on new directions for vessel design practices and tools, digital maritime traffic, naval ship designs, and new tanker design for arctic. Marine Design XIII will be of interest to academics and professionals in maritime technologies and marine design.

Forest trees cover 30% of the earth's land surface, providing renewable fuel, wood, timber, shelter, fruits, leaves, bark, roots, and are source of medicinal products in addition to benefits such as carbon sequestration, water shed protection, and habitat for 1/3 of terrestrial species. However, the genetic analysis and breeding of trees has lagged behind that of crop plants. Therefore, systematic conservation, sustainable improvement and pragmatic utilization of trees are global priorities. This book provides comprehensive and up to date information

about tree characterization, biological understanding, and improvement through biotechnological and molecular tools.

Proceedings of the 7th International Conference on Marine Structures (MARSTRUCT 2019, Dubrovnik, Croatia, 6-8 May 2019)

Marine Structural Design

Trends in the Analysis and Design of Marine Structures

Development of an Analysis and Design Optimization Framework for Marine Propellers

Special Issue: Analysis and Design of Marine Structures

Plated structures are widely used in many engineering constructions ranging from aircraft to ships and from off-shore structures to bridges and buildings. Given their diverse use in severe dynamic loading environments, it is vital that their dynamic behaviour is analysed and understood. Analysis and design of plated structures Volume 2: Dynamics provides a concise review of the most recent research in the area and how it can be applied in the field. The book discusses the modelling of plates for effects such as transverse shear deformation and rotary inertia, assembly of plates in forming thin-walled members, and changing material properties in composite, laminated and functionally graded plates. Various recent techniques for linear and nonlinear vibration analysis are also presented and discussed. The book concludes with a hybrid strategy suitable for parameter identification of plated structures and hydroelastic analysis of floating plated structures. With its distinguished editors and team of international contributors, Analysis and design of plated structures Volume 2: Dynamics is an invaluable reference source for engineers, researchers and academics involved in the analysis and design of plated structures. It also provides a companion volume to Analysis and design of plated structures Volume 1: Stability. The second of two volumes on plated structures Provides a concise review of the most recent research in the research of plated structures Discusses modelling of plates for specific effects

Analysis and Design of Marine Structures includes the papers from MARSTRUCT 2013, the 4th International Conference on Marine Structures (Espoo, Finland, 25-27 March 2013). The MARSTRUCT series of conferences started in Glasgow, UK in 2007, followed by the second conference in Lisbon, Portugal (March 2009), while the third conference was held in Hamburg, Germany (March 2011). All MARSTRUCT-conferences deal with Ship and Offshore Structures, whereby this present volume focusses on:- Methods and Tools for Loads and Load Effects; - Methods and Tools for Strength Assessment; - Experimental Analysis.

John Gaythwaite covers the design of marine structures for the berthing, mooring, and repair of vessels, including piers, wharves, bulkheads, quaywalls, dolphins, dry docks, floating docks, and various ancillary structures.

Marine Propellers and Propulsion

Design of Marine Structures in Composite Materials

Marine Design XIII, Volume 1

Proceedings of the 13th International Marine Design Conference (IMDC 2018), June 10-14, 2018, Helsinki, Finland

Marine Design XIII

This report reviews the structural engineering curriculum contained in the Ocean Engineering and Naval Architecture Departments in North American colleges. The report includes brief descriptions of the undergraduate and graduate programs including marine structure courses at the various schools. The report queries individuals and/or organizations representing the various branches of the total marine industry that are concerned to some significant degree with structural analysis and design. Their impressions and expectations regarding the education programs, their satisfaction with their own basic knowledge of and their confidence in their current marine structural analysis and design practices, and their views on how their own or the marine industry's circumstances with respect to these matters might be bettered, were sought. The report is finalized by providing recommendations towards improving marine structural education and the role the Ship Structure Committee can play.

This comprehensive handbook on submarine pipeline systems covers a broad spectrum of topics from planning and site investigations, procurement and design, to installation and commissioning. It considers guidelines for the choice of design parameters, calculation methods and construction procedures. It is based on limit state design with partial safety coefficients.

This book provides a comprehensive guide for the analysis and design of anchor systems used for mooring offshore floating structures. Much of the experience is based on applications toward the offshore oil and gas industry, but the substantial potential for offshore renewable energy systems is addressed. The major types of anchors are described with respect to their basic design concept, advantages and limitations, appropriate framework for analysis, and observed performance. This book addresses all aspects of anchor behaviour related to anchor design including the installation performance, load capacity, deformation, and structural integrity of the anchor itself. Coverage is also provided of appurtenant components of anchor systems, in particular of anchor line/chain mechanics in the soil and water columns. Much of the material presented represents relatively new developments, including several new anchors which have been developed within the last decade, so the book will provide a useful compendium of information is largely scattered in journals and conference proceedings. This book is intended for engineers engaged in offshore geotechnics and marine engineers involved in mooring system and floating structure design. While the analytical methods presented in this text have a strong theoretical basis, the emphasis is on simplified computational formats accessible to design engineers.

Oslo, November 8-9, 1972 : Papers

Papers