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21k Accesses 89 Citations Open-Channel Hydraulics, originally published in 1959, deals with the design for flow in open channels and their related structures. Covering both theory and practice, it attempts to bridge the gap that generally exists between the two. Theory is introduced first and is then applied to design problems. In many cases the application of theory is illustrated with practical examples. Theory is frequently simplified by adopting theoretically less rigorous treatments with sound concepts, by avoiding use of advanced mathematical manipulations, or by replacing such manipulations with practical numerical procedures. To facilitate understanding of the subject matter, the treatment is mostly based on the condition of one- or two-dimensional flow. The book deals mainly with American practice but also includes related information from many countries throughout the world. Material is divided into five main sections for an orderly and logical treatment of the subject: Basic Principles. Uniform Flow, Varied Flow, Rapidly Varied Flow, and Unsteady Flow. There are 67 illustrative examples, 282 illustrations, 319 problems, and 810 references. This classic textbook was the first English-language book on the subject in two decades. Open-Channel Hydraulics is a valuable text for students of engineering mechanics, hydraulics, civil, agricultural, sanitary, and mechanical engineering, and a helpful compendium for practicing engineers. Dr. Ven Te Chow was a Professor of Hydraulic Engineering and led the hydraulic engineering research and teaching programs at the University of Illinois. Through many years of experience as a teacher, engineer, researcher, writer, lecturer, and consultant, he became an internationally recognized leader in the fields of hydraulics, hydrology and hydraulic engineering. Dr. Ven Te Chow authored two technical books and more than 60 articles and papers in scientific engineering magazines and journals. He was a member of IAHR, ASCE, AGU, AAAS, SEE, and Sigma Xi, and had been Chairman of the American Geophysical Union's Permanent Research Committee on Runoff. Please choose whether or not you want other users to be able to see on your profile that this library is a favorite of yours. Allow this favorite library to be seen by others Keep this favorite library private Save Cancel Finding libraries that hold this item. . Novo a partir de Usado a partir de Capa Comum, 31 dezembro 1959 — R\$ 730,00 © 1996-2014, Amazon.com, Inc. or its affiliates Select all / Deselect allOpen Channel Hydraulics is written for undergraduate and graduate civil engineering students, and practicing engineers. Written in clear and simple language, it introduces and explains all the main topics required for courses on open channel flows, using numerous worked examples to illustrate the key points. With coverage of both introduction to flows, practical guidance to the design of open channels, and more advanced topics such as bridge hydraulics and the problem of scour, Professor Akan's book offers an unparalleled user-friendly study of this important subject-Clear and simple style suited for undergraduates and graduates alike ·Many solved problems and worked examples ·Practical and accessible guide to key aspects of open channel flow-Clear and simple style suited for undergraduates and graduates alike ·Many solved problems and worked examples ·Practical and accessible guide to key aspects of open channel flowYou currently don't have access to this book, however you can purchase separate chapters directly from the table of contents or buy the full version.Purchase the book Skip to main content Your IP address is 95.216.244.183 Troubleshooter page Scroll to the top of the page. CHAPTER 1 FUNDAMENTALS OF OPEN CHANNEL FLOW 1.1 Geometric Elements of Open Channels 1.2 Velocity and Discharge 1.3 Hydrostatic Pressure 1.4 Mass, Momentum and Energy Transfer in Open Channel Flow 1.4.1 Mass Transfer 1.4.2 Momentum Transfer 1.4.3 Energy Transfer 1.5 Open-Channel Flow Classification 1.6 Conservation Laws 1.6.1 Conservation of Mass 1.6.2 Conservation of Momentum 1.6.3 Conservation of Energy 1.6.4 Steady Flow Equations 1.6.5 Steady Spatially-Variied Flow Equations 1.6.6 Comparison and Use of Momentum and Energy Equations Problems References CHAPTER 2 ENERGY AND MOMENTUM PRINCIPLES 2.1. Critical Flow 2.1.1 Froude Number 2.1.2 Calculation of Critical Depth 2.2. Applications of Energy Principle for Steady Flow 2.2.1 Energy Equation 2.2.2 Specific Energy Diagram for Constant Discharge 2.2.3 Discharge Diagram for Constant Specific Energy 2.2.4 Specific Energy in Rectangular Channels 2.2.5 Choking of Flow 2.3. Applications of Momentum Principle for Steady Flow 2.3.1 Momentum Equation 2.3.2 Specific Momentum Diagram for Constant Discharge 2.3.3 Discharge Diagram for Constant Specific Momentum 2.3.4 Hydraulic Jump 2.3.5 Specific Momentum in Rectangular Channels 2.3.6 Hydraulic Jump in Rectangular Channels 2.3.7 Choking and Momentum Principle Problems References CHAPTER 3 NORMAL FLOW 3.1. Flow Resistance 3.1.1 Boundary Layer and Flow Resistance 3.1.2 Darcy-Weisbach Equation 3.1.3 The Chezy Equation 3.1.4 The Manning Formula 3.2 Normal Flow Equation 3.3 Normal Depth Calculations in Uniform Channels 3.4 Normal Depth Calculations in Grass-Lined Channels 3.5 Normal Depth Calculations in Rip-Rap Channels 3.6 Normal Flow in Composite Channels 3.7 Normal Flow in Compound Channels Problems References CHAPTER 4 GRADUALLY VARIED FLOW 4.1. Classification of Channels for Gradually-Variied Flow 4.2 Classification of Gradually-Variied Flow Profiles 4.3 Significance of Froude Number in Gradually-Variied Flow Calculations 4.4 Qualitative Determination of Expected Gradually Variied Flow Profiles 4.5 Gradually-Variied Flow Computations 4.5.1 Direct Step Method 4.5.2 Standard Step Method 4.6 Applications of Gradually-Variied Flow 4.6.1 Locating Hydraulic Jumps 4.6.2 Lake and Channel Problem 4.6.2.1 Lake and Mild Channel 4.6.2.2 Lake and Steep Channel 4.6.3 The Two-Lake Problem 4.6.3.1 Two Lakes and a Mild Channel 4.6.3.2 Two Lakes and Steep Channel 4.6.4 Effect of Choking on Water Surface Profile 4.6.4.1 Choking in Long Mild Channels 4.6.4.2 Choking in Steep Channels 4.7 Gradually Variied Flow in Channel Systems 4.8 Gradually Variied Flow in Natural Channels Problems References CHAPTER 5 DESIGN OF OPEN CHANNELS 5.1 General Design Considerations 5.2 Design of Unlined Channels 5.2.1 Maximum Permissible Velocity Method 5.2.2 Tractive Force Method 5.2.3 Channel Bends 5.3 Design of Channels with Flexible Linings 5.3.1 Design of Channels Lined with Vegetal Cover 5.3.1.1 Phase 1 - Design for Stability 5.3.1.2 Phase 2 - Modification for Required Conveyance 5.3.2 Design of Riprap Channels 5.3.3 Temporary Flexible Linings 5.4 Design of Rigid Boundary Channels 5.4.1 Experience Curve Approach 5.4.2 Best Hydraulic Section Approach 5.4.3 Minimum Lining Cost Approach 5.5 Channel Design for Nonuniform Flow Problems References CHAPTER 6 HYDRAULIC STRUCTURES 6.1 Flow Measurement Structures 6.1.1 Sharp-Crested Weirs 6.1.1.1 Rectangular Sharp-Crested Weirs 6.1.1.2 Sharp-Crested V-Notch 6.1.1.3 Cipolletti Weir 6.1.2 Broad-Crested Weirs 6.1.3 Flumes 6.2 Culverts 6.2.1 Inlet Control Flow 6.2.2 Outlet Control Flow 6.2.2.1 Full Flow Conditions 6.2.2.2 Partly Full Flow Condition 6.2.3 Sizing of Culverts 6.3 Overflow Spillways 6.3.1 Shape for Uncontrolled Ogee Crest 6.3.2 Discharge over an Uncontrolled Ogee Crest 6.3.3 Discharge over Gate-Controlled Ogee Crests 6.4 Stilling Basins 6.4.1 Position of Hydraulic Jump 6.4.2 Hydraulic Jump Characteristics 6.4.3 Standard Stilling Basin Designs 6.5 Channel Transitions 6.5.1 Channel Transitions for Subcritical Flow 6.5.1.1 Energy Loss at Transitions 6.5.1.2 Water Surface Profile at Transitions 6.5.1.3 Design of Channel Transitions for Subcritical Flow 6.5.2 Channel Transitions for Supercritical Flow 6.5.2.1 Standing Wave Fronts in Supercritical Flow 6.5.2.2 Rectangular Contractions for Supercritical Flow 6.5.2.3 Rectangular Expansions for Supercritical Flow 6.6 Internal Energy Dissipators 6.6.1 Increased Resistance - Tumbling Flow 6.6.2 Drop Inlet Structures 6.7 Streambed Level Dissipators - Contra Costa Basin Design 6.8 Riprap Aprons Problems References CHAPTER 7 BRIDGE HYDRAULICS 7.1 Modeling Bridge Sections 7.1.1 Cross-Section Locations 7.1.2 Low Flow Types at Bridge Sites 7.1.3 Low Flow Calculations at Bridge Sites 7.1.3.1 Flow Choking at Bridge Sections 7.1.3.2 Energy Method for Low Flow Calculations 7.1.3.3 Momentum Method for Low Flow Calculations 7.1.3.4 Yarnell Equation for Low Flow Calculations 7.1.4 High Flow Calculations at Bridge Sites 7.1.4.1 Sluice Gate Type Flow 7.1.4.2 Orifice Type Flow 7.1.4.3 Weir Type Flow 7.1.4.4 Direct Step Method for High Flow Calculation 7.2 Evaluating Scour at Bridges 7.2.1 Contraction Scour 7.2.1.1 Critical Velocity 7.2.1.2. Live Bed Contraction Scour 7.2.1.3 Clear-Water Contraction Scour 7.2.2 Local Scour at Piers 7.2.2.1 The CSU Equation for Pier Scour 7.2.2.2 Froehlich Equation for Pier Scour 7.2.2.3 Pressure Flow Scour 7.2.3 Local Scour at Abutments 7.2.3.1. The HIRE Equation 7.2.3.2. Froehlich Equation Problems References CHAPTER 8 INTRODUCTION TO UNSTEADY OPEN-CHANNEL FLOW 8.1 Governing Equations 8.2 Numerical Solution Methods 8.2.1 Explicit Finite Difference Schemes 8.2.2 Implicit Finite Difference Schemes 8.2.2.1 Reach Equations 8.2.2.2 Boundary Equations 8.2.2.3 Solution Procedure 8.2.2.4 Elements of the Coefficient Matrix 8.2.2.5 An Efficient Algorithm to Determine Corrections 8.2.3 Special Considerations 8.2.4 Channel Systems 8.3 Approximate Unsteady Flow Models 8.3.1 Diffusion-Wave Model for Unsteady Flow 8.3.2 Finite Difference Equations 8.3.3 Solution of Finite Difference Equations 8.4 Simple Channel Routing Methods 8.4.1 Muskingum Method 8.4.1.1 Routing Equation 8.4.1.2 Calibration of Muskingum Parameters 8.4.2 Muskingum-Cunge Method Problems References Answers





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