

Victor Miguel Ponce Engineering Hydrology

Newcomers to Tucson know the Santa Cruz River as a dry bed that can become a rampaging flood after heavy rains. Yet until the late nineteenth century, the Santa Cruz was an active watercourse that served the region's agricultural needs—until a burgeoning industrial society began to tap the river's underground flow. The Lessening Stream reviews the changing human use of the Santa Cruz River and its aquifer from the earliest human presence in the valley to today. Michael Logan examines the social, cultural, and political history of the Santa Cruz Valley while interpreting the implications of various cultures' impacts on the river and speculating about the future of water in the region. Logan traces river history through three eras—archaic, modern, and postmodern—to capture the human history of the river from early Native American farmers through Spanish missionaries to Anglo settlers. He shows how humans first diverted its surface flow, then learned to pump its aquifer, and today fail to fully understand the river's place in the urban environment. By telling the story of the meandering river—from its origin in southern Arizona through Mexico and the Tucson Basin to its terminus in farmland near Phoenix—Logan links developments throughout the river valley so that a more complete picture of the river's history emerges. He also contemplates the future of the Santa Cruz by confronting the serious problems posed by groundwater pumping in Tucson and addressing the effects of the Central Arizona Project on the river valley. Skillfully interweaving history with hydrology, geology, archaeology, and anthropology, The Lessening Stream makes an important contribution to the environmental history of southern Arizona. It reminds us that, because water will always be the focus for human activity in the desert, we desperately need a more complete understanding of its place in our lives. For more than 25 years, the multiple editions of Hydrology & Hydraulic Systems have set the standard for a comprehensive, authoritative treatment of the quantitative elements of water resources development. The latest edition extends this tradition of excellence in a thoroughly revised volume that reflects the current state of practice in the field of hydrology. Widely praised for its direct and concise presentation, practical orientation, and wealth of example problems, Hydrology & Hydraulic Systems presents fundamental theories and concepts balanced with excellent coverage of engineering applications and design. The Fourth Edition features a major revision of the chapter on distribution systems, as well as a new chapter on the application of remote sensing and computer modeling to hydrology. Outstanding features of the Fourth Edition include . . . • More than 350 illustrations and 200 tables • More than 225 fully solved examples, both in FPS and SI units • Fully worked-out examples of design projects with realistic data • More than 500 end-of-chapter problems for assignment • Discussion of statistical procedures for groundwater monitoring in accordance with the EPA's Unified Guidance • Detailed treatment of hydrologic field investigations and analytical procedures for data assessment, including the USGS acoustic Doppler current profiler (ADCP) approach • Thorough coverage of theory and design of loose-boundary channels, including the latest concept of combining the regime theory and the power function laws Summary Dependency Injection Principles, Practices, and Patterns teaches you to use DI to reduce hard-coded dependencies between application components. You'll start by learning what DI is and what types of applications will benefit from it. Then, you'll work through concrete scenarios using C# and the .NET framework to implement DI in your own projects. As you dive into the thoroughly-explained examples, you'll develop a foundation you can apply to any of the many DI libraries for .NET and .NET Core. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Dependency Injection (DI) is a great way to reduce tight coupling between software components. Instead of hard-coding dependencies, such as specifying a database driver, you make those connections through a third party. Central to application frameworks like ASP.NET Core, DI enables you to better manage changes and other complexity in your software. About the Book Dependency Injection Principles, Practices, and Patterns is a revised and expanded edition of the bestselling classic Dependency Injection in .NET. It teaches you DI from the ground up, featuring relevant examples, patterns, and anti-patterns for creating loosely coupled, well-structured applications. The well-annotated code and diagrams use C# examples to illustrate principles that work flawlessly with modern object-oriented languages and DI libraries. What's Inside Refactoring existing code into loosely coupled code DI techniques that work with statically typed OO languages Integration with common .NET frameworks Updated examples illustrating DI in .NET Core About the Reader For intermediate OO developers. About the Authors Mark Seemann is a programmer, software architect, and speaker who has been working with software since 1995, including six years with Microsoft. Steven van Deursen is a seasoned .NET developer and architect, and the author and maintainer of the Simple Injector DI library. Table of Contents PART 1 Putting Dependency Injection on the map The basics of Dependency Injection: What, why, and how Writing tightly coupled code Writing loosely coupled code PART 2 Catalog DI patterns DI anti-patterns Code smells PART 3 Pure DI Application composition Object lifetime Interception Aspect-Oriented Programming by design Tool-based Aspect-Oriented Programming PART 4 DI Containers DI Container Introduction The Autofac DI Container The Simple Injector DI Container The Microsoft.Extensions.DependencyInjection DI Container

American Book Publishing Record

Rivers

Coastal Resources Management

Coastal Sediments 2019 - Proceedings Of The 9th International Conference

Dam Failure Mechanisms and Risk Assessment

Terahertz Astronomy

Containing the proceedings of the Second International Conference on the title topic, the book examines issues related to the nature of water, and its use and exploitation by society. Since ensuring an adequate water supply is becoming a critical issue in more and more countries, the conference brings together specialists from the social sciences and humanistic disciplines and the physical and natural sciences, biology, environmental sciences, and health to bridge gaps between the disciplines in addressing the problem. The international, interdisciplinary nature of the conference participants makes it possible to arrive at equitable solutions to the many transnational issues, relating to the rights of states, which arise around water supply. The book discusses: The nature of water; Water as a human right; Water as the source of life; Water in a changing climate; Future water demands and adaptation strategies; Water resources contamination; Water resources management; Irrigation and desertification; Water, sanitation and health; Transnational water rights; Legislation and controls; Lessons to be learnt; Water and disaster management.

Remote sensing has undergone profound changes over the past two decades as GPS, GIS, and sensor advances have significantly expanded the user community and availability of images. New tools, such as automation, cloud-based services, drones, and artificial intelligence, continue to expand and enhance the discipline. Along with comprehensive coverage and clarity, Sabins and Ellis establish a solid foundation for the insightful use of remote sensing with an emphasis on principles and a focus on sensor technology and image acquisition. The Fourth Edition presents a valuable discussion of the growing and permeating use of technologies such as drones and manned aircraft imaging, DEMs, and lidar. The authors explain the scientific and societal impacts of remote sensing, review digital image processing and GIS, provide case histories from areas around the globe, and describe practical applications of remote sensing to the environment, renewable and nonrenewable resources, land use/land cover, natural hazards, and climate change. • Remote Sensing Digital Database includes 27 examples of satellite and airborne imagery that can be used to jumpstart labs and class projects. The database includes descriptions, georeferenced images, DEMs, maps, and metadata. Users can display, process, and interpret images with open-source and commercial image processing and GIS software. • Flexible, revealing, and instructive, the Digital Image Processing Lab Manual provides 12 step-by-step exercises on the following topics: an introduction to ENVI, Landsat multispectral processing, image processing, band ratios and principal components, georeferencing, DEMs and lidar, IHS and image sharpening, unsupervised classification, supervised classification, hyperspectral, and change detection and radar. • Introductory and instructional videos describe and guide users on ways to access and utilize the Remote Sensing Digital Database and the Digital Image Processing Lab Manual. • Answer Keys are available for instructors for questions in the text as well as the Digital Image Processing Lab Manual.

This is the academic Age of the Neoliberal Arts. Campuses—as places characterized by democratic debate and controversy, wide ranges of opinion typical of vibrant public spheres, and service to the larger society—are everywhere being creatively destroyed in order to accord with market and military models befitting the academic-industrial complex. While it has become increasingly clear that facilitating the sustainability movement is the great 21st century educational challenge at hand, this book asserts that it is both a dangerous and criminal development today that sustainability in higher education has come to be defined by the complex-friendly “green campus” initiatives of science, technology, engineering and management programs. By contrast, Greening the Academy: Ecopedagogy Through the Liberal Arts takes the standpoints of those working for environmental and ecological justice in order to critique the unsustainable disciplinary limitations within the humanities and social sciences, as well as provide tactical reconstructive openings toward an empowered liberal arts for sustainability. Greening the Academy thus hopes to speak back with a collective demand that sustainability education be defined as a critical and moral vocation comprised of the diverse types of humanistic study that will benefit the well-being of our emerging planetary community and its numerous common locales.

Connectivity Conservation

Improved Highway Design Methods for Desert Storms

An Environmental History of the Santa Cruz River

1991 National Symposium on Mining : September 22-27, 1991

Unsteady Flow in Open Channels

The International Journal of Mechanical Engineering Education

This revised Second Edition features updated information on sediment transport through pipes and the principles of sediment transportation which form the basis for solving alluvial stream problems. Discusses such theoretical aspects as properties of sediments, incipient motion condition, flow regimes, resistance to flow, bed load transport, suspended load and total load transport. Also covers applied problems including sediment samplers and sampling, stable channels, alluvial streams and sediment control.

Thinking on development informs and inspires the actions of people, organizations and states in their continuous effort to invent a better world. This volume examines the ideas behind development: their origins, how they changed and spread over time, and how they may evolve over the coming decades. It also examines the real-life experiences of different countries and organizations have been inspired by, and contributed to, thinking on development. Each chapter will be an analytical survey of thinking about development, highlighting debates and taking into account critical perspectives. The volume is intended as a key reference on the range of concepts used to think about development -their origins, evolution and trajectories- and act as a resource for an audience of scholars, graduate students and practitioners.

In the last one hundred years, a number of catastrophic events associated with rockslide dam formation and failure have occurred in the mountain regions of the world. This book presents a global view of the formation, characteristics and behaviour of natural and artificial rockslide dams. Chapters include a comprehensive state-of-the-art review of our global understanding natural and artificial rockslide dams, overviews of approaches to rockslide dam risk mitigation, regional studies of rockslide dams in India, Nepal, China, Pakistan, New Zealand, and Argentina. Rockslide dams associated with large-scale instability of volcanoes are also examined. Detailed case histories of well-known historic and prehistoric rockslide dams provide examples of investigations of rockslide dam behaviour, stability, and characteristics. The formation and behaviour of rockslide-dammed lakes ("Quake Lakes") formed during the 2008 Wenchuan Earthquake, China are also comprehensively summarised. The formation, sedimentology and stability of rockslide dams is examined in several analytical papers. An analysis of break-out floods from volcanogenic lakes and hydrological methods of estimating break-out flood magnitude and behavior are reviewed. The use of remote sensing data in rockslide-dammed lake characterisation is explored and a new approach to the classification of rockslide dams is introduced. Finally, a unique section of the book summarises Russian and Kyrgyz experience with blast-fill dam construction in two papers by leading authorities on the technology. The volume contains 24 papers by 50 authors from 16 countries including most of the recognised world authorities on the subject.

The Lessening Stream

Dependency Injection Principles, Practices, and Patterns

Dam Breach Modeling Technology

Virtuous Waters

Hydrologic and Environmental Impact of the Paraná-Paraguay Waterway on the Pantanal of Mato Grosso, Brazil

Proceedings

The well-known and controversial Mexican American studies (MAS) program in Arizona's Tucson Unified School District set out to create an equitable and excellent educational experience for Latino students. Raza Studies: The Public Option for Educational Revolution offers the first comprehensive account of this progressive—indeed revolutionary—program by those who created it, implemented it, and have struggled to protect it. Inspired by Paulo Freire's vision for critical pedagogy and Chicano activists of the 1960s, the designers of the program believed their program would encourage academic achievement and engagement by Mexican American students. With chapters by leading scholars, this volume explains how the program used “critically compassionate intellectualism” to help students become “transformative intellectuals” who successfully worked to improve their level of academic achievement, as well as create social change in their schools and communities. Despite its popularity and success inverting the achievement gap, in 2010 Arizona state legislators introduced and passed legislation with the intent of banning MAS or any similar curriculum in public schools. Raza Studies is a passionate defense of the program in the face of heated local and national attention. It recounts how one program dared to venture to a world of possibility, hope, and struggle, and offers compelling evidence of success for social justice education programs.

Beginning with the basics of water resources and hydrologic cycle, the book contains detailed discussions on simulation and synthetic methods in hydrology, rainfall-runoff analysis, flood frequency analysis, fundamentals of groundwater flow, and well hydraulics. Special emphasis is laid on groundwater budgeting and numerical methods to deal with situations where analytical solutions are not possible. The book has a balanced coverage of conventional techniques of hydrology along with the latest topics, which makes it equally useful to practising engineers.

Characteristics of hydrologic phenomena; Random variables and their distributions; Various probability topics applied to hydrology; Statistics and hydrology; Empirical distributions of hydrologic variables; Parameters and order-statistics as descriptors of distributions; Probability distribution functions in hydrology; Estimation methods; Sampling Theory; Testing hypotheses and goodness of fit; Correlation and regression; Multivariate analysis.

Proceedings, 26th Annual Hydraulics Division Specialty Conference, University of Maryland, College Park, Maryland, August 9-11, 1978

Linear Theory of Hydrologic Systems

A Reference Study

Verification of Mathematical and Physical Models in Hydraulic Engineering

hydrology

Solutions Manual to Engineering Hydrology

Engineering HydrologyPrinciples and PracticesPearson College DivisionSolutions Manual to Engineering HydrologyPrinciples and PracticesCinesonidosFilm Music and National Identity During Mexico's Época de OroOxford University Press

This book integrates the physical processes of dam breaching and the mathematical aspects of risk assessment in a concise manner • The first book that introduces the causes, processes and consequences of dam failures • Integrates the physical processes of dam breaching and the mathematical aspects of risk assessment in a concise manner • Emphasizes integrating theory and practice to better demonstrate the application of risk assessment and decision methodologies to real cases • Intends to formulate dam-breaching emergency management steps in a scientific structure

This volume discusses the theoretical fundamentals and potential applications of the original electro-Fenton (EF) process and its most innovative and promising versions, all of which are classified as electrochemical advanced oxidation processes. It consists of 15 chapters that review the latest advances and trends, material selection, reaction and reactor modeling and EF scale-up. It particularly focuses on the applications of EF process in the treatment of toxic and persistent organic pollutants in water and soil, showing highly efficient removal for both lab-scale and pre-pilot setups. Indeed, the EF technology is now mature enough to be brought to market, and this collection of contributions from leading experts in the field constitutes a timely milestone for scientists and engineers.

Ecopedagogy Through the Liberal Arts

Engineering Hydrology

National Engineering Handbook

Natural and Artificial Rockslide Dams

Design of Bridge Structures

Principles and Practices

Dams are constructed for economic development, and their construction involves large investments of money, and natural and human resources. Of the various types of dams constructed around the globe, earth dams are the most common type and constitute the vast majority of dams. When adam fails, it culminates in the sudden release of artificially stored water which, in turn, becomes a potential menace to virtually everything downstream. The dam failure may result in loss of life and property. In recent years, instances of dam failure in the world have been too many, and the resulting loss too high. As a result, dam safety pro grams have been developed in most countries of the world since the beginning of the nineteenth eighties. • Earth dams are more susceptible to failure than other types. The cause of failure is often either overtopping or piping. The modeling of dam breaching due to either or both of these causes is of fundamental importance to development of dam-safety programs. This book is, therefore, an attempt to present some aspects of earth-dam breach modeling technology. It is hoped that others will be stimulated to write more comprehensive texts on this subject of growing interest and importance. The book is divided into eight chapters. The first chapter is introductory and discusses some aspects of dams and dam failures in the world.

A Powerful Window into Cosmic Evolution Terahertz (THz) observations of interstellar atoms, molecules, and dust serve as powerful probes of the conditions within the interstellar medium that permeates our galaxy, providing insights into the origins of stars, planets, galaxies, and the Universe. Taking a cross-disciplinary approach to the subject, Terahertz Astronomy explores THz astrophysics and the technologies that make this rapidly evolving field possible. The first four chapters of the book discuss the origin and interpretation of THz light in astrophysical sources. The remaining five chapters present an overview of the technologies used to collect and detect THz light. Every chapter contains worked-out examples and exercises. The author explains each topic as intuitively as possible and includes the equations needed for real-life astrophysical applications. In just a few years, the number of active THz researchers has substantially grown due to increased interest in terrestrial remote sensing at THz frequencies. This book provides researchers with both the background science and technology to interpret THz observations and design, build, and deploy THz astronomical instrumentation.

One of the biggest threats to the survival of many plant and animal species is the destruction or fragmentation of their natural habitats. The conservation of landscape connections, where animals, plants, and ecological processes can move freely from one habitat to another, is therefore an essential part of any new conservation or environmental protection plan. In practice, however, maintaining, creating, and protecting connectivity in our increasingly dissected world is a daunting challenge. This fascinating volume provides a synthesis on the current status and literature of connectivity conservation research and implementation. It shows the challenges involved in applying existing knowledge to real-world examples and highlights areas in need of further study. Containing contributions from leading scientists and practitioners, this topical and thought-provoking volume will be essential reading for graduate students, researchers, and practitioners working in conservation biology and natural resource management.

Participatory Conservation in Latin America, Africa, Asia and Europe

Water and Society II

Film Music and National Identity During Mexico's Época de Oro

Mechanics of Sediment Transportation and Alluvial Stream Problems

Ideas, Experience, and Prospects

BPR annual cumulative

This Proceedings contains over 260 papers on cutting-edge research presented at the 9th International Conference on Coastal Sediments 2019 (CS19), held in Tampa/St. Petersburg, Florida, USA from May 27-31, 2019. This technical specialty conference is devoted to promoting an interdisciplinary exchange of state-of-the-art knowledge among researchers in the fields of coastal engineering, geology, oceanography, and related disciplines. With the theme of 'Advancing Science & Engineering for Resilient Coastal Systems', this Proceedings covers a wide range of research topics on coastal sediment processes from nearshore sediment transport and

modelling to beach processes, shore protection, and coastal management.

During Mexico's silent (1896-1930) and early sound (1931-52) periods, cinema saw the development of five significant genres: the prostitute melodrama (including the cabaretera subgenre), the indigenista film (on indigenous themes or topics), the cine de añoranza porfiriana (films of Porfirian nostalgia), the Revolution film, and the comedia ranchera (ranch comedy). In this book, author Jacqueline Avila looks at examples from all genres, exploring the ways that the popular, regional, and orchestral music in these films contributed to the creation of tropes and archetypes now central to Mexican cultural nationalism. Integrating primary source material--including newspaper articles, advertisements, films--with film music studies, sound studies, and Mexican film and cultural history, Avila examines how these tropes and archetypes mirrored changing perceptions of mexicanidad manufactured by the State and popular and transnational culture. As she shows, several social and political agencies were heavily invested in creating a unified national identity in an attempt to merge the previously fragmented populace as a result of the Revolution. The commercial medium of film became an important tool to acquaint a diverse urban audience with the nuances of Mexican national identity, and music played an essential and persuasive role in the process. In this heterogeneous environment, cinema and its music continuously reshaped the contested, fluctuating space of Mexican identity, functioning both as a sign and symptom of social and political change.

At publication date, a free ebook version of this title will be available through Luminos, University of California Press's Open Access publishing program. Visit www.luminosoa.org to learn more. Virtuous Waters is the first study of mineral waters and bathing in Mexico. It traces the evolving ideas about these waters, from European contact to the present, in order to shed new light on human-environment relations in the modern world. Our relation to water is among the most urgent of global issues, as increasing scarcity and pollution threaten food shortages, deteriorating public health, and the collapse of aquatic ecosystems. Drawing on ideas from political ecology, the author brings together an analysis of the shifts in the concept of water and a material history of environments, infrastructures, and bathing. The book analyzes a range of issues concerning complex "water cultures" that have formed around Mexican groundwaters over time and suggests that this understanding might also help us comprehend and confront the water crisis that is coming to a head in the twenty-first century.

Principles, Interpretation, and Applications, Fourth Edition

Probability and Statistics in Hydrology

Towards Sustainable Development : Proceedings of the National Conference on Rivers '99, 14-17 October 1999, Penang, Malaysia

Fourth Edition

Electro-Fenton Process

Remote Sensing

The Soil Conservation Service (SCS) curve number (CN) method is one of the most popular methods for computing the runoff volume from a rainstorm. It is popular because it is simple, easy to understand and apply, and stable, and accounts for most of the runoff producing watershed characteristics, such as soil type, land use, hydrologic condition, and antecedent moisture condition. The SCS-CN method was originally developed for its use on small agricultural watersheds and has since been extended and applied to rural, forest and urban watersheds. Since the inception of the method, it has been applied to a wide range of environments. In recent years, the method has received much attention in the hydrologic literature. The SCS-CN method was first published in 1956 in Section-4 of the National Engineering Handbook of Soil Conservation Service (now called the Natural Resources Conservation Service), U. S. Department of Agriculture. The publication has since been revised several times. However, the contents of the methodology have been nonetheless more or less the same. Being an agency methodology, the method has not passed through the process of a peer review and is, in general, accepted in the form it exists. Despite several limitations of the method and even questionable credibility at times, it has been in continuous use for the simple reason that it works fairly well at the field level.

Technical Release

Hydrology and Hydraulic Systems

Raza Studies

Development Case Studies

Greening the Academy

People, Protected Areas and Global Change