Computational Modelling in Hydraulic and Coastal Engineering

By Christopher Koutitas, Panagiotis D. Scarlatos

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos

Combines More Than 40 Years of Expert Experience

Computational modelling and simulation methods have a wide range of applications in hydraulic and coastal engineering. **Computational Modelling in Hydraulic and Coastal Engineering** provides an introductory but comprehensive coverage of these methods. It emphasizes the use of the finite differences method with applications in reservoir management, closed-conduit hydraulics, free-surface channel and coastal domain flows, surface gravity waves, groundwater movement, and pollutant and sediment transport processes.

It focuses on applications rather than lengthy theories or derivations of complex formulas and is supported by a wealth of hands-on numerical examples and computer codes written in MATLAB but available also in BASIC. PowerPoint presentations and learning assignment projects/quizzes, along with learning assessment rubrics, are included.

A comprehensive study highlighting the infinite differences method, this book:

- Covers the fundamentals of flow in pressurized conduits
- Contains solutions for the classical Hardy Cross pipe network problem
- Designates the mathematical description of groundwater flow in confined and unconfined aquifers
- Provides numerical examples for one- and two-dimensional applications including saltwater intrusion
- Presents examples of transport of pollutants, sediment and air bubbles using Eulerian and Lagrangian solution methodologies
- Includes information on weighted residuals, the finite elements method, and the boundary integral method

Computational Modelling in Hydraulic and Coastal Engineering suits senior-level undergraduates and graduate students as well as practitioners such as coastal and maritime engineers, environmental engineers, civil engineers, computer modellers, and hydro-geologists.

⬇ Download Computational Modelling in Hydraulic and Coastal E ...pdf

🖹 Read Online Computational Modelling in Hydraulic and Coastal ...pdf

Computational Modelling in Hydraulic and Coastal Engineering

By Christopher Koutitas, Panagiotis D. Scarlatos

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos

Combines More Than 40 Years of Expert Experience

Computational modelling and simulation methods have a wide range of applications in hydraulic and coastal engineering. **Computational Modelling in Hydraulic and Coastal Engineering** provides an introductory but comprehensive coverage of these methods. It emphasizes the use of the finite differences method with applications in reservoir management, closed-conduit hydraulics, free-surface channel and coastal domain flows, surface gravity waves, groundwater movement, and pollutant and sediment transport processes.

 It focuses on applications rather than lengthy theories or derivations of complex formulas and is supported by a wealth of hands-on numerical examples and computer codes written in MATLAB but available also in BASIC. PowerPoint presentations and learning assignment projects/quizzes, along with learning assessment rubrics, are included.

A comprehensive study highlighting the infinite differences method, this book:

- Covers the fundamentals of flow in pressurized conduits
- Contains solutions for the classical Hardy Cross pipe network problem
- Designates the mathematical description of groundwater flow in confined and unconfined aquifers
- Provides numerical examples for one- and two-dimensional applications including saltwater intrusion
- Presents examples of transport of pollutants, sediment and air bubbles using Eulerian and Lagrangian solution methodologies
- Includes information on weighted residuals, the finite elements method, and the boundary integral method

Computational Modelling in Hydraulic and Coastal Engineering suits senior-level undergraduates and graduate students as well as practitioners such as coastal and maritime engineers, environmental engineers, civil engineers, computer modellers, and hydro-geologists.

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos Bibliography

- Sales Rank: #4000360 in Books
- Published on: 2015-11-23
- Original language: English
- Number of items: 1
- Dimensions: 9.50" h x 6.25" w x .75" l, .0 pounds

- Binding: Hardcover
- 313 pages

 Download Computational Modelling in Hydraulic and Coastal E ...pdf

 Read Online Computational Modelling in Hydraulic and Coastal ...pdf

Download and Read Free Online Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos

Editorial Review

Users Review

From reader reviews:

Shannon Batiste:

Inside other case, little men and women like to read book Computational Modelling in Hydraulic and Coastal Engineering. You can choose the best book if you like reading a book. Given that we know about how is important some sort of book Computational Modelling in Hydraulic and Coastal Engineering. You can add expertise and of course you can around the world by a book. Absolutely right, mainly because from book you can recognize everything! From your country until eventually foreign or abroad you will find yourself known. About simple matter until wonderful thing you can know that. In this era, we can easily open a book or perhaps searching by internet unit. It is called e-book. You may use it when you feel bored stiff to go to the library. Let's learn.

Brady Witt:

As people who live in the particular modest era should be update about what going on or facts even knowledge to make all of them keep up with the era and that is always change and progress. Some of you maybe may update themselves by examining books. It is a good choice for you but the problems coming to you actually is you don't know what kind you should start with. This Computational Modelling in Hydraulic and Coastal Engineering is our recommendation so you keep up with the world. Why, as this book serves what you want and wish in this era.

Trevor Wright:

The e-book with title Computational Modelling in Hydraulic and Coastal Engineering posesses a lot of information that you can discover it. You can get a lot of gain after read this book. This particular book exist new know-how the information that exist in this e-book represented the condition of the world today. That is important to yo7u to find out how the improvement of the world. This book will bring you throughout new era of the internationalization. You can read the e-book with your smart phone, so you can read this anywhere you want.

David Auman:

Reserve is one of source of expertise. We can add our knowledge from it. Not only for students but also native or citizen will need book to know the change information of year in order to year. As we know those ebooks have many advantages. Beside all of us add our knowledge, also can bring us to around the world. By the book Computational Modelling in Hydraulic and Coastal Engineering we can take more advantage. Don't

one to be creative people? To get creative person must like to read a book. Merely choose the best book that ideal with your aim. Don't become doubt to change your life with that book Computational Modelling in Hydraulic and Coastal Engineering. You can more attractive than now.

Download and Read Online Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos #DSZIN38F9V1

Read Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos for online ebook

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos books to read online.

Online Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos ebook PDF download

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos Doc

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos Mobipocket

Computational Modelling in Hydraulic and Coastal Engineering By Christopher Koutitas, Panagiotis D. Scarlatos EPub