

COMPUTER SCIENCE AND ENGINEERING

Applications of Numerical Techniques with C

Suresh Chandra

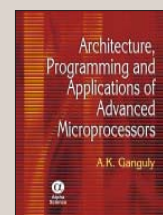
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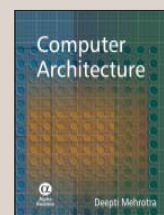
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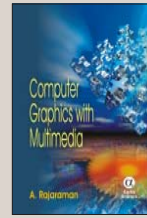
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One of the major requisites in engineering system development is the role of graphics in presentation, communication and interaction with various groups involved in execution of the system from concept to maintenance. For engineers, who deal with computer integrated problem solving approaches, understanding graphics need a book that serves to bridge the gap of computer aspects and engineering requirements. This volume aims to fill this need.

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Computer Networks provides research directions in all types of computer networks covering research challenges such as, security in wired/wireless networks, mobility management in 4G networks, routing in wireless and high speed networks, wired/wireless multimedia communications, performance analysis of WLAN and WMAN, quantum cryptography, game theory in wireless networks, mobile agents in MANETs, physical layer communications, interference in WLAN and WMAN, ATM networks and web mining.

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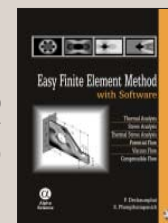
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Easy Finite Element Method *with Software* explains fundamentals of the finite element method so that it is easy to understand. The book includes a finite element color graphics software which is simple to use on personal computers or notebooks. The finite element theory described in the book together with the accompanied software can help beginners to understand the entire process of the method quickly.

The book presents the use of the method for analyzing problems in different disciplines. These include: (a) thermal, (b) stress, (c) thermal stress, (d) potential flow, (e) viscous flow, and (f) high-speed compressible flow problems. Their differential equations, finite element equations and matrices are presented. The accompanied software, EasyFEM, was developed for beginners who had little or no background on using a finite element software. The software combines both the color graphics visualization and the finite element analyzer.

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Foundations of the Semantic Web: XML, RDF & Ontology

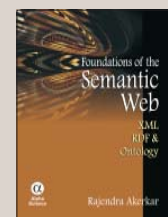
Rajendra Akerkar

Foundations of the Semantic Web: XML, RDF & Ontology proceeds from a broad-spectrum discussion of the Semantic Web and progresses through various technologies such as XML, XML Schema, XPath, RDF, RDF Schema frameworks, Ontology, and then delivers current applications and potential future developments. The sequence builds in line with Tim Berner – Lee's *layer cake* diagram and explains concepts clearly. Each chapter ends with interesting exercises and "Further Readings" section that lists advance reference pointers.

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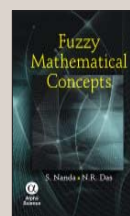
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S. Nanda, N. R. Das

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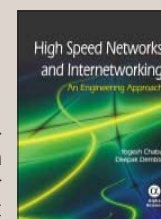
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COMPUTER SCIENCE AND ENGINEERING

Intelligent Computing Models

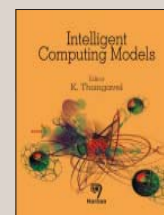
Editor: *K. Thangavel*

Intelligent Computing Models focuses on the current trends in Data Mining, Image Processing, Mobil Computing, Soft Computing and Pattern Recognition. Different aspects such as clustering, dimensionality reduction/feature selection, classification, medical image segmentation and web usage mining have been discussed and modeled in this book. The book will be of great interest and use to scientists and engineers in various fields.

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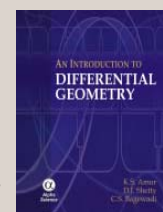
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Labelings of Discrete Structures and Applications

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Mathematical and Computational Models: *Recent Trends*

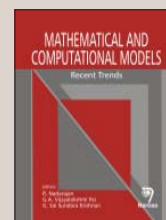
Editors: R. Nadarajan, G. A. Vijayalakshmi Pai, G. Sai Sundara Krishnan

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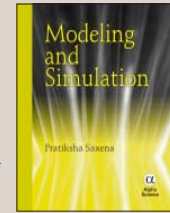
Modeling and Simulation

Pratiksha Saxena

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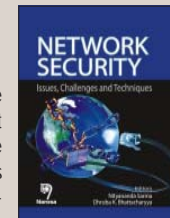
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COMPUTER SCIENCE AND ENGINEERING

Neural Networks: Algorithms and Applications

M. A. Rao, J. Srinivas

TEXTBOOK

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Numeric Computing in Fortran

Sujit Kumar Bose

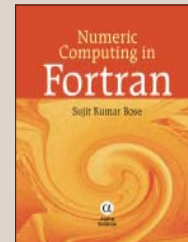
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Scientific enquiry mostly require computation of mathematical models. *Numeric Computing in Fortran* endeavors to systematically develop the principal methods of solution of such problems, develop the algorithms in an organized manner and provides understandable computer codes in simple statements of Fortran 90/95 – a traditional language for such purposes. This forward looking version of the language is fully backward-compatible to facilitate integration with user written programs. The mathematics behind the computational methods is kept at a moderate level and proofs of the theoretical results are provided in most cases.

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P. B. Patil, U. P. Verma

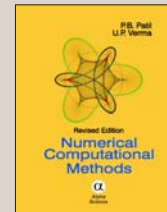
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Power Circuits and Electromechanics

M. A. Pai

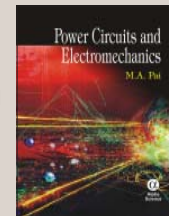
TEXTBOOK

Power Circuits and Electromechanics is intended to serve as a one semester introductory course in power circuits and electromechanical energy conversion. In many curricula, the traditional circuit theory course is being replaced by a course in analog processing. The students should have basic exposure to KCL, KVL and simple circuits as well as a course in field theory or electromagnetism before taking this course. The book is basically in three modules.

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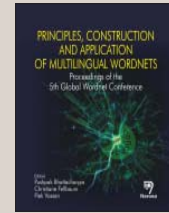
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COMPUTER SCIENCE AND ENGINEERING

Principles, Construction and Application of Multilingual Wordnets *Proceedings of the 5th Global Wordnet Conference*

Editors: *P. Bhattacharyya, Christiane Fellbaum, Piek Vossen*

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Representing the meanings of words is a formidable task for linguists; understanding them is arguably the greatest challenge for machines. Wordnets are lexical databases in which the meanings of words are given in terms of their relations to other words. This model of lexical meaning – inspired by research on human semantic memory – allows automatic systems designed for Natural Language Processing to detect and measure semantic similarity among words in a text.

Based on the original English WordNet, semantic networks have been constructed for dozens of genetically and typologically distinct languages, opening up new vistas on the diversity of human communication. The Proceedings of the Fifth Global WordNet conference include papers on the challenges of constructing new wordnets in a wide range of languages, the theoretical foundations and structure of wordnets as well as reports on numerous extensions and applications.

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Audience: Students & Researchers

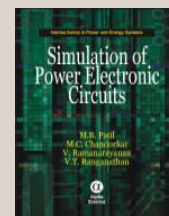
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M. B. Patil, V. Ramanarayanan, V.T. Ranganathan

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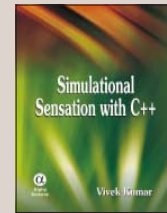
COMPUTER SCIENCE AND ENGINEERING

Simulational Sensation with C++

Vivek Kumar

FORTHCOMING

TEXTBOOK



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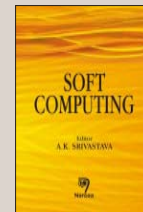
Editor: A. K. Srivastava

CONTENTS: Preface / Artificial Neural Network and Fuzzy Logic / Genetic Algorithm and Pattern Recognition / Cryptography and Wireless Networking / Data Mining and Computing / Robotics, Multi Agent Systems, Expert Systems and Ontology / Industrial Applications.

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A Textbook on Fortran/2003

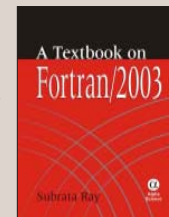
Subrata Ray

TEXTBOOK

A Textbook on Fortran/2003 is designed for beginners who have not been exposed to the earlier versions of the language. At the same time, users who have used the earlier versions can look into it for new features. Whenever possible a complete Fortran program has been used to illustrate a statement. Tips for writing efficient and readable programs have been discussed. Besides standard features of the language, some of the recent additions like Array Handling Intrinsics, Enhancement in Dynamic Memory Management, IEEE Arithmetic Modules, Variable Length Strings, Interoperability with C Programming Language, Object Oriented Programming Support, Derived Type Enhancements and many other new features of the language have been incorporated.

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Editors: J. Mishra, P. K. J. Mohapatra

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Web Intelligent Systems

Editors: B. Govindarajalu, Sheila Anand, P. Kumar

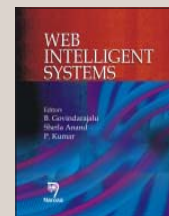
Web Intelligent Systems examines the recent advances and emerging trends on the next generation of Web and Web empowered systems, products and services. Different aspects of Web and Web empowered systems such as technology, architecture, system design, interface design, implementation, evaluation of performance, security and privacy and other related topics have been discussed including:

- Architecture, Programming and Semantic Web
- Semantic Web and Ontology Engineering
- Semantic Web Services
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- Web Mining and Farming
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Audience: Undergraduate Students, Teachers & Researchers in Computer Science

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