

## Gravano For Error Control Coding Buk

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Database Systems: The Complete Book is ideal for Database Systems and Database Design and Application courses offered at the junior, senior and graduate levels in Computer Science departments. A basic understanding of algebraic expressions and laws, logic, basic data structure, OOP concepts, and programming environments is implied. Written by well-known computer scientists, this introduction to database systems offers a comprehensive approach, focusing on database design, database use, and implementation of database applications and database management systems. The first half of the book provides in-depth coverage of databases from the point of view of the database designer, user, and application programmer. It covers the latest database standards SQL:1999, SQL/PSM, SQL/CLI, JDBC, ODL, and XML, with broader coverage of SQL than most other texts. The second half of the book provides in-depth coverage of databases from the point of view of the DBMS implementor. It focuses on storage structures, query processing, and transaction management. The book covers the main techniques in these areas with broader coverage of query optimization than most other texts, along with advanced topics including multidimensional and bitmap indexes, distributed transactions, and information integration techniques.

Information Theory, Coding & Cryptography has been designed as a comprehensive book for the students of engineering discussing Source Encoding, Error Control Codes & Cryptography. The book contains the recent developments of coded modulation, trellises for codes, turbo coding for reliable data and interleaving. The text balances the mathematical rigor with exhaustive amount of solved, unsolved questions along with a database of MCQs.

Describes basic principles and recent developments in approximate query processing. It focuses on four key synopses: random samples, histograms, wavelets, and sketches. It considers issues such as accuracy, space and time efficiency, optimality, practicality, range of applicability, error bounds on query answers, and incremental maintenance.

This book provides a comprehensive account of fiber-optic communication systems. The 3rd edition of this book is used worldwide as a textbook in many universities. This 4th edition incorporates recent advances that have occurred, in particular two new chapters. One deals with the advanced modulation formats (such as DPSK, QPSK, and QAM) that are increasingly being used for improving spectral efficiency of WDM lightwave systems. The second chapter focuses on new techniques such as all-optical regeneration that are under development and likely to be used in future communication systems. All other chapters are updated, as well.

This book provides a comprehensive explanation of forward error correction, which is a vital part of communication systems. The book is written in such a way to make the subject easy and understandable for the reader. The book starts with a review of linear algebra to provide a basis for the text. The author then goes on to cover linear block codes, syndrome error correction, cyclic codes, Galois fields, BCH codes, Reed Solomon codes, and convolutional codes. Examples are provided throughout the text. Provides a comprehensive treatment of forward error correction Includes examples through the book, which are solved in steps, making them easier to understand Ideal for researchers, professionals and students.

John Gotti is terminally ill; when he passes on to that great Mafia in the sky, co-author Capeci will be in great demand for interviews and will the plug the book. As he battles terminal cancer in a federal prison in Illinois, John Gotti, still the acting head of the Gambino Mafia family, is constantly in the news. Once Mr. Gotti ascends to Mafia heaven, he will be worldwide news-and Alpha will have the most up-to-date and comprehensive book on the subject.

One of the greatest challenges faced by designers of digital systems is optimizing the communication and interconnection between system components. Interconnection networks offer an attractive and economical solution to this communication crisis and are fast becoming pervasive in digital systems. Current trends suggest that this communication bottleneck will be even more problematic when designing future generations of machines. Consequently, the anatomy of an interconnection network router and science of interconnection network design will only grow in importance in the coming years. This book offers a detailed and comprehensive presentation of the basic principles of interconnection network design, clearly illustrating them with numerous examples, chapter exercises, and case studies. It incorporates hardware-level descriptions of concepts, allowing a designer to see all the steps of the process from abstract design to concrete implementation. Case studies throughout the book draw on extensive author experience in designing interconnection networks over a period of more than twenty years, providing real world examples of what works, and what doesn't. Tightly couples concepts with implementation costs to facilitate a deeper understanding of the tradeoffs in the design of a practical network. A set of examples and exercises in every chapter help the reader to fully understand all the implications of every design decision.

An unparalleled learning tool and guide to error correction coding Error correction coding techniques allow the detection and correction of errors occurring during the transmission of data in digital communication systems. These techniques are nearly universally employed in modern communication systems, and are thus an important component of the modern information economy. Error Correction Coding: Mathematical Methods and Algorithms provides a comprehensive introduction to both the theoretical and practical aspects of error correction coding, with a presentation suitable for a wide variety of audiences, including graduate students in electrical engineering, mathematics, or computer science. The pedagogy is arranged so that the mathematical concepts are presented incrementally, followed immediately by applications to coding. A large number of exercises expand and deepen students' understanding. A unique feature of the book is a set of programming laboratories, supplemented with over 250 programs and functions on an associated Web site, which provides hands-on experience and a better understanding of the material. These laboratories lead students through the implementation and evaluation of Hamming codes, CRC codes, BCH and R-S codes, convolutional codes, turbo codes, and LDPC codes. This text offers both "classical" coding theory-such as Hamming, BCH, Reed-Solomon, Reed-Muller, and convolutional codes-as well as modern codes and decoding methods, including turbo codes, LDPC codes, repeat-accumulate codes, space time codes, factor graphs, soft-decision decoding, Guruswami-Sudan decoding, EXIT charts, and iterative decoding. Theoretical complements on performance and bounds are presented. Coding is also put into its communications and information theoretic context and connections are drawn to public key cryptosystems. Ideal as a classroom resource and a professional reference, this thorough guide will benefit electrical and computer

engineers, mathematicians, students, researchers, and scientists.

This is a book for electrical and electronic engineers, not for materials scientists. Every explanation is rendered in its simplest and clearest form and as many relevant examples are included as possible. At every point, the author makes clear the direct relevance of every topic to the reader's main course of study: electrical and electronic engineering. The central theme is that the type of bonding in a solid not only controls its electrical properties but also, and just as directly, its mechanical properties and how things are made from it. Thus the reason why a copper wire can conduct electricity is exactly the same reason it can be drawn into a wire in the first place. The reason why a piece of porcelain does not conduct electricity is the same as why it cannot be rolled into its final shape as copper could and thus has to be made directly. This common origin of electrical and mechanical properties dictates the structure of the book.

This is the first comprehensive overview of the exciting field of the 'science of science'. With anecdotes and detailed, easy-to-follow explanations of the research, this book is accessible to all scientists, policy makers, and administrators with an interest in the wider scientific enterprise.

The true story behind the Martin Scorsese film: A "riveting . . . account of how organized crime looted the casinos they controlled" (Kirkus Reviews). Focusing on Chicago bookie Frank "Lefty" Rosenthal and his partner, Anthony Spilotro, and drawing on extensive, in-depth interviews, the #1 New York Times–bestselling author of the Mafia classic Wiseguy—basis for the film Goodfellas—Nicholas Pileggi reveals how the pair worked together to oversee Las Vegas casino operations for the mob. He unearths how Teamster pension funds were used to take control of the Stardust and Tropicana and how Spilotro simultaneously ran a crew of jewel thieves nicknamed the "Hole in the Wall Gang." For years, these gangsters kept a stranglehold on Sin City's brightly lit nightspots, skimming millions in cash for their bosses. But the elaborate scheme began to crumble when Rosenthal's disproportionate ambitions drove him to make mistakes. Spilotro made an error of his own, falling for his partner's wife, a troubled showgirl named Geri. It would all lead to betrayal, a wide-ranging FBI investigation, multiple convictions, and the end of the Mafia's longstanding grip on the multibillion-dollar gaming oasis in the midst of the Nevada desert. Casino is a journey into 1970s Las Vegas and a riveting nonfiction account of the world portrayed in the Martin Scorsese film of the same name, starring Robert DeNiro, Joe Pesci, and Sharon Stone. A story of adultery, murder, infighting, and revenge, this "fascinating true-crime Mob history" is a high-stakes page-turner (Booklist).

How do mafias work? How do they recruit people, control members, conduct legal and illegal business, and use violence? Why do they establish such a complex mix of rituals, rules, and codes of conduct? And how do they differ? Why do some mafias commit many more murders than others? This book makes sense of mafias as organizations, via a collative analysis of historical accounts, official data, investigative sources, and interviews. Catino presents a comparative study of seven mafias around the world, from three Italian mafias to the American Cosa Nostra, Japanese Yakuza, Chinese Triads, and Russian mafia. He identifies the organizational architecture that characterizes these criminal groups, and relates different organizational models to the use of violence. Furthermore, he advances a theory on the specific functionality of mafia rules and discusses the major organizational dilemmas that mafias face. This book shows that understanding the organizational logic of mafias is an indispensable step in confronting them.

The state of the art of modern lightwave system design Recent advances in lightwave technology have led to an explosion of high-speed global information systems throughout the world. Responding to the growth of this exciting new technology, Lightwave Technology provides a comprehensive and up-to-date account of the underlying theory, development, operation, and management of these systems from the perspective of both physics and engineering. The first independent volume of this two-volume set, Components and Devices, deals with the multitude of silica- and semiconductor-based optical devices. This second volume, Telecommunication Systems, helps readers understand the design of modern lightwave systems, with an emphasis on wavelength-division multiplexing (WDM) systems. \* Two introductory chapters cover topics such as modulation formats and multiplexing techniques used to create optical bitstreams \* Chapters 3 to 5 consider degradation of optical signals through loss, dispersion, and nonlinear impairment during transmission and its corresponding impact on system performance \* Chapters 6 to 8 provide readers with strategies for managing degradation induced by amplifier noise, fiber dispersion, and various nonlinear effects \* Chapters 9 and 10 discuss the engineering issues involved in the design of WDM systems and optical networks Each chapter includes problems that enable readers to engage and test their new knowledge to solve problems. A CD containing illuminating examples based on RSoft Design Group's award-winning OptSim optical communication system simulation software is included with the book to assist readers in understanding design issues. Finally, extensive, up-to-date references at the end of each chapter enable students and researchers to gather more information about the most recent technology breakthroughs and applications. With its extensive problem sets and straightforward writing style, this is an excellent textbook for upper-level undergraduate and graduate students. Research scientists and engineers working in lightwave technology will use this text as a problem-solving resource and a reference to additional research papers in the field.

An eye-opening book that reveals crucial information every woman taking hormonal birth control should know This groundbreaking book sheds light on how hormonal birth control affects women--and the world around them--in ways we are just now beginning to understand. By allowing women to control their fertility, the birth control pill has revolutionized women's lives. Women are going to college, graduating, and entering the workforce in greater numbers than ever before, and there's good reason to believe that the birth control pill has a lot to do with this. But there's a lot more to the pill than meets the eye. Although women go on the pill for a small handful of targeted effects (pregnancy prevention and clearer skin, yay!), sex hormones can't work that way. Sex hormones impact the activities of billions of cells in the body at once, many of which are in the brain. There, they play a role in influencing attraction, sexual motivation, stress, hunger, eating



they grew up in. This is the story of a daughter's struggle to reconcile the image of her loving father with that of a murdering Mafioso, and how, in healing the rift between the two, she was able to forge a new life.

This book is a complete guide to the C4.5 system as implemented in C for the UNIX environment. It contains a comprehensive guide to the system's use, the source code (about 8,800 lines), and implementation notes.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Search Engines: Information Retrieval in Practice is ideal for introductory information retrieval courses at the undergraduate and graduate level in computer science, information science and computer engineering departments. It is also a valuable tool for search engine and information retrieval professionals. Written by a leader in the field of information retrieval, Search Engines: Information Retrieval in Practice, is designed to give undergraduate students the understanding and tools they need to evaluate, compare and modify search engines. Coverage of the underlying IR and mathematical models reinforce key concepts. The book's numerous programming exercises make extensive use of Galago, a Java-based open source search engine.

"Shows how to recognize NP-complete problems and offers proactical suggestions for dealing with them effectively. The book covers the basic theory of NP-completeness, provides an overview of alternative directions for further research, and contains and extensive list of NP-complete and NP-hard problems, with more than 300 main entries and several times as many results in total. [This book] is suitable as a supplement to courses in algorithm design, computational complexity, operations research, or combinatorial mathematics, and as a text for seminars on approximation algorithms or computational complexity. It provides not only a valuable source of information for students but also an essential reference work for professionals in computer science"--Back cover.

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The Second International Conference on Networks and Communications (NeCoM 2010), the Second International Conference on Wireless and Mobile Networks (WiMoN 2010), and the Second International Conference on Web and Semantic Technology (WeST 2010) were held in Chennai, India, during July 23–25, 2010. They attracted many local and international delegates, presenting a balanced mixture of intellects from the East and from the West. The goal of these conferences is to bring together researchers and practitioners from academia and industry to focus on understanding computer networks, wireless networks, mobile networks and the Web, semantic technologies and to establish new collaborations in these areas. Authors are invited to contribute to the conference by submitting articles that illustrate research results, projects, survey work and industrial experiences describing significant advances in the areas of all computer networks and Semantic Web technologies. The NeCoM 2010, WiMoN 2010 and WeST 2010 committees rigorously invited submissions for many months from researchers, scientists, engineers, students and practitioners related to the relevant themes and tracks of the workshop. This effort guaranteed submissions from an unparalleled number of internationally recognized top-level researchers. All the submissions underwent a strenuous peer-review process which comprised expert reviewers. These reviewers were selected from a talented pool of Technical Committee

members and external reviewers on the basis of their expertise. The papers were then reviewed based on their contributions, technical content, originality and clarity.

PES College of Engineering is organizing an International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT-12) in Mandya and merging the event with Golden Jubilee of the Institute. The Proceedings of the Conference presents high quality, peer reviewed articles from the field of Electronics, Computer Science and Technology. The book is a compilation of research papers from the cutting-edge technologies and it is targeted towards the scientific community actively involved in research activities.

Thoroughly updated for currency, this book offers a clear presentation of data communications and network fundamentals. Featuring a wide array of applications, the book fully explains concepts and supports them with case studies or descriptions of specific software and other products. Students learn the protocols of analog and digital signals, data compression, data integrity, data security, local area networks, asynchronous transfer mode (ATM), and much more. The third edition includes important information on the latest developments of the Internet.

The boss of New York's infamous Lucchese crime family, Anthony "Gaspipe" Casso's life in the Mafia was preordained from birth. His rare talent for "earning"—concocting ingenious schemes to hijack trucks, rob banks, and bring vast quantities of drugs into New York—fueled his unstoppable rise up the ladder of organized crime. A mafioso responsible for at least fifty murders, Casso lived large, with a beautiful wife and money to burn. When the law finally caught up with him in 1994, Casso became the thing he hated most—an informer. From his blood feud with John Gotti to his dealings with the "Mafia cops," decorated NYPD officers Lou Eppolito and Stephen Caracappa, to the Windows case, which marked the beginning of the end for the New York Mob, Gaspipe is Anthony Casso's shocking story—a roller-coaster ride into an exclusive netherworld that reveals the true inner workings of the Mafia, from its inception to the present time.

This open access book covers the use of data science, including advanced machine learning, big data analytics, Semantic Web technologies, natural language processing, social media analysis, time series analysis, among others, for applications in economics and finance. In addition, it shows some successful applications of advanced data science solutions used to extract new knowledge from data in order to improve economic forecasting models. The book starts with an introduction on the use of data science technologies in economics and finance and is followed by thirteen chapters showing success stories of the application of specific data science methodologies, touching on particular topics related to novel big data sources and technologies for economic analysis (e.g. social media and news); big data models leveraging on supervised/unsupervised (deep) machine learning; natural language processing to build economic and financial indicators; and forecasting and nowcasting of economic variables through time series analysis. This book is relevant to all stakeholders involved in digital and data-intensive research in economics and finance, helping them to understand the main opportunities and challenges, become familiar with the latest methodological findings, and learn how to use and evaluate the performances of novel tools and frameworks. It primarily targets data scientists and business analysts exploiting data science technologies, and it will also be a useful resource to research students in disciplines and courses related to these topics. Overall, readers will learn modern and effective data science solutions to create tangible innovations for economic and financial applications.

Searching Multimedia Databases by Content bridges the gap between the database and signal processing communities by providing the necessary background information for the reader and presenting it along with the intuition and mechanics of the best existing tools in each area. The first half of Searching Multimedia Databases by Content reviews the most successful database access methods, in increasing complexity, reaching up to spatial access methods and text retrieval. In all cases, the emphasis is on practical approaches that have been incorporated in commercial systems, or that seem very promising. The second half of the book uses the above access methods to achieve fast searching in a database of signals. A general methodology is presented, which suggests extracting a few good features from each multimedia object, thus mapping objects into points in a metric space. Finally, the book concludes by presenting some recent successful applications of the methodology on time series and color images. Searching Multimedia Databases by Content is targeted towards researchers and developers of multimedia systems. The book can also serve as a textbook for a graduate course on multimedia searching, covering both access methods as well as the basics of signal processing.

In the world of digital electronic it is essential to detect and correct errors in digital signals. This introductory book tackles the complex subject of error detection and correction in an easily accessible way for undergraduate students of computer science and electronic engineering. This book leads the reader with no prior knowledge through this important topic while avoiding unnecessary and difficult mathematical proofs.

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