

Fundamentals Of Database Systems 6th Edition Solutions Manual

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The Impact of the 4th Industrial Revolution on Engineering Education

Michael E. Auer 2020-03-17 This book gathers papers presented at the 22nd International Conference on Interactive Collaborative Learning (ICL2019), which was held in Bangkok, Thailand, from 25 to 27 September 2019. Covering various fields of e-learning and distance learning, course and curriculum development, knowledge management and learning, real-world learning experiences, evaluation and outcomes assessment, computer-aided language learning, vocational education development and technical teacher training, the contributions focus on innovative ways in which higher education can respond to the real-world challenges related to the current transformation in the development of education. Since it was established, in 1998, the ICL conference has been devoted to new approaches in learning with a focus on collaborative learning. Today, it is a forum for sharing trends and research findings as well as presenting practical experiences in learning and engineering pedagogy. The book appeals to policymakers, academics, educators, researchers in pedagogy and learning theory, school teachers, and other professionals in the learning industry, and further and continuing education.

Fundamentals of Database Systems Ramez Elmasri 2015-06-19 For database systems courses in Computer Science This book introduces the fundamental concepts necessary for designing, using, and implementing database systems and database applications. Our presentation stresses the fundamentals of database modeling and design, the languages and models provided by the database management systems, and database system implementation techniques. The book is meant to be used as a textbook for a one- or two-semester course in database systems at the junior, senior, or graduate level, and as a reference book. The goal is to provide an in-depth and up-to-date presentation of the most important aspects of database systems and applications, and related technologies. It is assumed that readers are familiar with elementary programming and data-structuring concepts and that they have had some exposure to the basics of computer organization.

Advanced Topics in Database Research Keng Siau 2004-01-01 This book presents the latest research ideas and topics on how to enhance current database systems, improve information storage, refine existing database models, and develop advanced applications. It provides insights into important developments in the field of database and database management. With emphasis on theoretical issues regarding databases and database management, the book describes the capabilities and features of new technologies and methodologies, and addresses the needs of database researchers and practitioners. *Note: This book is part of a new series entitled *Advanced Topics in Database Research* ." This book is Volume Three within this series (Vol. III, 2004).

Fundamentals of Database Systems Ramez Elmasri 2007 This edition combines clear explanations of database theory and design with up-to-date coverage of models and real systems. It features excellent examples and access to Addison Wesley's database Web site that includes further teaching, tutorials and many useful student resources.

Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications Wang, John 2008-05-31 In recent years, the science of managing and analyzing large datasets has emerged as a critical area of research. In the race to answer vital questions and make knowledgeable decisions, impressive amounts of data

are now being generated at a rapid pace, increasing the opportunities and challenges associated with the ability to effectively analyze this data.

Database Support for Workflow Management Paul Grefen 2012-12-06 Database Support for Workflow Management: The WIDE Project presents the results of the ESPRIT WIDE project on advanced database support for workflow management. The book discusses the state of the art in combining database management and workflow management technology, especially in the areas of transaction and exception management. This technology is complemented by a high-level conceptual workflow model and associated workflow application design methodology. In WIDE, advanced base technology is applied, like a distributed computing model based on the corba standard. The usability of the WIDE approach is documented in this book by a discussion of two real-world applications from the insurance and health care domains. Database Support for Workflow Management: The WIDE Project serves as an excellent reference, and may be used for advanced courses on database and workflow management systems.

Handbook of Data Intensive Computing Borko Furht 2011-12-09 Data Intensive Computing refers to capturing, managing, analyzing, and understanding data at volumes and rates that push the frontiers of current technologies. The challenge of data intensive computing is to provide the hardware architectures and related software systems and techniques which are capable of transforming ultra-large data into valuable knowledge. Handbook of Data Intensive Computing is written by leading international experts in the field. Experts from academia, research laboratories and private industry address both theory and application. Data intensive computing demands a fundamentally different set of principles than mainstream computing. Data-intensive applications typically are well suited for large-scale parallelism over the data and also require an extremely high degree of fault-tolerance, reliability, and availability. Real-world examples are provided throughout the book. Handbook of Data Intensive Computing is designed as a reference for practitioners and researchers, including programmers, computer and system infrastructure designers, and developers. This book can also be beneficial for business managers, entrepreneurs, and investors. Physical Database Design Sam S. Lightstone 2010-07-26 The rapidly increasing volume of information contained in relational databases places a strain on databases, performance, and maintainability: DBAs are under greater pressure than ever to optimize database structure for system performance and administration. Physical Database Design discusses the concept of how physical structures of databases affect performance, including specific examples, guidelines, and best and worst practices for a variety of DBMSs and configurations. Something as simple as improving the table index design has a profound impact on performance. Every form of relational database, such as Online Transaction Processing (OLTP), Enterprise Resource Management (ERP), Data Mining (DM), or Management Resource Planning (MRP), can be improved using the methods provided in the book. The first complete treatment on physical database design, written by the authors of the seminal, Database Modeling and Design: Logical Design, Fourth Edition Includes an introduction to the major concepts of physical database design as well as detailed examples, using methodologies and tools most popular for relational databases today: Oracle, DB2 (IBM), and SQL Server (Microsoft) Focuses on physical database design for exploiting B+tree indexing, clustered indexes, multidimensional

clustering (MDC), range partitioning, shared nothing partitioning, shared disk data placement, materialized views, bitmap indexes, automated design tools, and more!

Database and Expert Systems Applications A Min Tjoa

2012-12-06 Use and development of database and expert systems can be found in all fields of computer science. The aim of this book is to present a large spectrum of already implemented or just being developed database and expert systems. Contributions cover new requirements, concepts for implementations (e.g. languages, models, storage structures), management of meta data, system architectures, and experiences gained by using traditional databases in as many areas of applications as possible (at least in the fields listed). The aim of the book is to inspire a fruitful dialogue between development in practice, users of database and expert systems, and scientists working in the field.

Effective Databases for Text & Document Management Shirley A.

Becker 2003-01-01 "Focused on the latest research on text and document management, this guide addresses the information management needs of organizations by providing the most recent findings. How the need for effective databases to house information is impacting organizations worldwide and how some organizations that possess a vast amount of data are not able to use the data in an economic and efficient manner is demonstrated. A taxonomy for object-oriented databases, metrics for controlling database complexity, and a guide to accommodating hierarchies in relational databases are provided. Also covered is how to apply Java-triggers for X-Link management and how to build signatures."

Handbook of Research on Innovations in Database Technologies and Applications Viviana E. Ferragine 2009-01-01

"This book provides a wide compendium of references to topics in the field of the databases systems and applications"--Provided by publisher.

Advanced Information Systems Engineering Workshops John

Krogstie 2016-06-06 This book constitutes the thoroughly refereed proceedings of five international workshops held in Ljubljana, Slovenia, in conjunction with the 28th International Conference on Advanced Information Systems Engineering, CAiSE 2016, in June 2016. The 16 full and 9 short papers were carefully selected from 51 submissions. The associated workshops were the Third International Workshop on Advances in Services DEsign based on the Notion of CAPabiliy (ASDENCA) co-arranged with the First International Workshop on Business Model Dynamics and Information Systems Engineering (BumDISE), the Fourth International Workshop on Cognitive Aspects of Information Systems Engineering (COGNISE), the First International Workshop on Energy-awareness and Big Data Management in Information Systems (EnBIS), the Second International Workshop on Enterprise Modeling (EM), and the Sixth International Workshop on Information Systems Security Engineering (WISSE).

Database and Expert Systems Applications Fernando Galindo

2004-08-19 DEXA 2004, the 15th International Conference on Database and Expert Systems Applications, was held August 30 ? September 3, 2004, at the University of Zaragoza, Spain. The quickly growing spectrum of database applications has led to the establishment of more specialized discussion platforms (DaWaK Conference, EC-Web Conference, EGOVConference, Trustbus Conference and DEXA Workshop: Every DEXA event has its own conference proceedings), which were held in parallel with the DEXA Conference also in Zaragoza. In your hands are the results of much effort. The work begins with the preparation of the submitted papers, which then go through the reviewing process. The accepted papers are revised to final versions by their authors and are then arranged within the conference program. All culminates in the conference itself. For this conference 304 papers were submitted, and I want to thank to all who contributed to it; they are the real base of the conference. The program committee and the supporting reviewers produced altogether 942 referee reports, in average 3,1 reports per paper, and selected 92 papers for presentation. At this point we would like to say many thanks to all the institutions that actively supported this conference and made it possible. These were: • University of Zaragoza • FAW • DEXA Association • Austrian Computer Society

Datenbanksysteme Thomas Connolly 2002

Springer Handbook of Computational Intelligence Janusz Kacprzyk 2015-05-28 The Springer Handbook for Computational Intelligence is the first book covering the basics, the state-of-the-art and important applications of the dynamic and rapidly expanding discipline of computational intelligence. This comprehensive handbook makes readers familiar with a broad spectrum of approaches to solve various problems in science and technology. Possible approaches include, for example, those being inspired by biology, living organisms and animate systems. Content is organized in seven parts: foundations; fuzzy logic; rough sets; evolutionary computation; neural networks; swarm intelligence and hybrid computational intelligence systems. Each Part is supervised by its own Part Editor(s) so that high-quality content as well as completeness are assured.

Intelligent Systems Cornelius T. Leondes 2018-10-08 Intelligent systems, or artificial intelligence technologies, are playing an increasing role in areas ranging from medicine to the major manufacturing industries to financial markets. The consequences of flawed artificial intelligence systems are equally wide ranging and can be seen, for example, in the programmed trading-driven stock market crash of October 19, 1987. *Intelligent Systems: Technology and Applications*, Six Volume Set connects theory with proven practical applications to provide broad, multidisciplinary coverage in a single resource. In these volumes, international experts present case-study examples of successful practical techniques and solutions for diverse applications ranging from robotic systems to speech and signal processing, database management, and manufacturing.

Database Systems for Advanced Applications Lizhu Zhou

2005-04-04 This book constitutes the refereed proceedings of the 10th International Conference on Database Systems for Advanced Applications, DASFAA 2005, held in Beijing, China in April 2005. The 67 revised full papers and 15 revised short papers presented were carefully reviewed and selected from 302 submissions. The papers are organized in topical sections on bioinformatics, water marking and encryption, XML query processing, XML coding and metadata management, data mining, data generation and understanding, music retrieval, query processing in subscription systems, extending XML, Web services, high-dimensional indexing, sensor and stream data processing, database performance, clustering and classification, data warehousing, data mining and Web data processing, moving object databases, temporal databases, semantics, XML update and query patterns, join processing and view management, spatial databases, enhancing database services, recovery and correctness, and XML databases and indexing.

Database Integrity: Challenges and Solutions Doorn, Jorge

Horacio 2001-07-01 Geared toward designers and professionals interested in the conceptual aspects of integrity problems in different paradigms, *Database Integrity: Challenges and Solutions* successfully addresses these and a variety of other issues.

E-Business and Distributed Systems Handbook Amjad Umar 2003

This module of the handbook concentrates on solution architectures through components. Topics include the role of component-based web application architectures, architecture patterns, enterprise data architectures, implementation examples using XML Web Services, Sun's J2EE, and Microsoft's .NET.

Paradoxes in Food Chains and Networks J.H. Trienekens

2002-06-01 This publication contains the proceedings of the 5th international conference on chain and network management in agribusiness and the food industry. Papers will focus on the paradoxes caused by conflicting interests in the fields of economics and ethics, technology and environment, legislation and internationalisation, etc. The modern consumer demands highquality products, in broad assortments throughout the year, and for competitive prices. Society imposes constraints on companies in order to economize on the use of resources, ensure animal-friendly and safe production, and restrict pollution. Together with technological developments and increased international competition, these demands have changed the production, trade, and distribution of food products beyond recognition. Demand is no longer confined to local or regional supply. The food industry is now swiftly becoming an interconnected system with a large variety of complex

relationships. This is changing the way food is brought to the market. Currently, even fresh produce shipped from halfway around the world can be offered at competitive prices. These developments are accompanied by national and international regulations and legislation in the area of food quality and safety. In response to these changes, business strategies must now focus not only on traditional economical and technological interests, but also on topical issues such as the safety and healthfulness of food products, animal friendliness, the environment, etc. To effectively address paradoxical demands facing businesses, many problems and opportunities must be approached from a multi-disciplinary perspective, and trade-offs must be made between different aspects of production, trade and the distribution of food. Integrated Solutions with DB2 Rob Cutlip 2003 Now, two leading IBM solution architects show you how to use DB2 to create flexible infrastructures that simplify the construction of any enterprise-class business solution.

In-Memory Data Management Hasso Plattner 2011-03-08 In the last 50 years the world has been completely transformed through the use of IT. We have now reached a new inflection point. Here we present, for the first time, how in-memory computing is changing the way businesses are run. Today, enterprise data is split into separate databases for performance reasons. Analytical data resides in warehouses, synchronized periodically with transactional systems. This separation makes flexible, real-time reporting on current data impossible. Multi-core CPUs, large main memories, cloud computing and powerful mobile devices are serving as the foundation for the transition of enterprises away from this restrictive model. We describe techniques that allow analytical and transactional processing at the speed of thought and enable new ways of doing business. The book is intended for university students, IT-professionals and IT-managers, but also for senior management who wish to create new business processes by leveraging in-memory computing.

What Can I Do Now Ferguson 2009-01-01

Modellierung von Business-Intelligence-Systemen Michael Hahne 2014-07-10 Die Modellierung von Business-Intelligence-Systemen (BI) umfasst eine Vielzahl unterschiedlicher Facetten, die im Kontext von Operational BI, agile Warehousing, Real-Time und Self-Service BI zu bewerten sind. Dieses Buch beschreibt die Architektur und Gestaltung von unternehmensweiten analyseorientierten Informationssystemen insbesondere unter dem Aspekt zunehmend agiler Geschäftsanforderungen und deren Unterstützung durch BI-Methoden. Neben der Darstellung von Best Practices der Historisierung und der Data-Mart-Modellierung ist der Aufbau eines Enterprise Data Warehouse von zentraler Bedeutung. Behandelt werden im Einzelnen: - Business-Intelligence-Architektur - Mehrdimensionale Datenstrukturen - Semantische mehrdimensionale Modellierung - Bestandteile und Varianten des Star-Schemas - Historisierung und Zeitabhängigkeit im Data Warehouse - Faktenmodellierung - Dimensionsmodellierung - Core-Data-Warehouse-Modellierung Dieses Buch ist ein Muss für alle mit der Gestaltung und Nutzung von BI-Systemen betrauten Architekten, Analysten, Entwickler und Projektleiter.

Conceptual Modeling - ER 2010 Jeffrey Parsons 2010-10-19 This book constitutes the refereed proceedings of the 29th International Conference on Conceptual Modeling, ER 2010, held in Vancouver, BC, Canada, in November 2010. The 32 revised full papers presented were carefully reviewed and selected from 147 submissions. The papers are organized in topical sections on business process modeling; requirements engineering and modeling 1; requirements engineering and modeling 2; data evolution and adaptation; operations on spatio-temporal data; demos and posters; model abstraction, feature modeling, and filtering; integration and composition; consistency, satisfiability and compliance checking; using ontologies for query answering; and document and query processing.

Encyclopedia of Information Science and Technology, First Edition Khosrow-Pour, D.B.A., Mehdi 2005-01-31 Comprehensive coverage of critical issues related to information science and technology.

Database Modeling and Design Toby J. Teorey 2011-02-10 Database Modeling and Design, Fifth Edition, focuses on techniques for database design in relational database systems.

This extensively revised fifth edition features clear explanations, lots of terrific examples and an illustrative case, and practical advice, with design rules that are applicable to any SQL-based system. The common examples are based on real-life experiences and have been thoroughly class-tested. This book is immediately useful to anyone tasked with the creation of data models for the integration of large-scale enterprise data. It is ideal for a stand-alone data management course focused on logical database design, or a supplement to an introductory text for introductory database management. In-depth detail and plenty of real-world, practical examples throughout Loaded with design rules and illustrative case studies that are applicable to any SQL, UML, or XML-based system Immediately useful to anyone tasked with the creation of data models for the integration of large-scale enterprise data.

Interoperating Geographic Information Systems

International Workshop on Interoperating Geographic Information Systems Staff 1999-03-04 This book constitutes the refereed proceedings of the Second International Conference on Interoperating Geographic Information Systems, INTEROP'99, held in Zurich, Switzerland in March 1999. The volume presents 22 revised full papers carefully reviewed and selected for inclusion in the book. Also included are three invited full papers. The book addresses various topics of database interoperability and spatial data processing in particular identification, infrastructure, implementation, vectors and graphics, semantics, heterogeneous databases and representation.

Encyclopedia of Data Warehousing and Mining Wang, John 2005-06-30 Data Warehousing and Mining (DWM) is the science of managing and analyzing large datasets and discovering novel patterns and in recent years has emerged as a particularly exciting and industrially relevant area of research. Prodigious amounts of data are now being generated in domains as diverse as market research, functional genomics and pharmaceuticals; intelligently analyzing these data, with the aim of answering crucial questions and helping make informed decisions, is the challenge that lies ahead. The Encyclopedia of Data Warehousing and Mining provides a comprehensive, critical and descriptive examination of concepts, issues, trends, and challenges in this rapidly expanding field of data warehousing and mining (DWM). This encyclopedia consists of more than 350 contributors from 32 countries, 1,800 terms and definitions, and more than 4,400 references. This authoritative publication offers in-depth coverage of evolutions, theories, methodologies, functionalities, and applications of DWM in such interdisciplinary industries as healthcare informatics, artificial intelligence, financial modeling, and applied statistics, making it a single source of knowledge and latest discoveries in the field of DWM.

Introduction to Computational Earthquake Engineering

Hori Muneo 2018-06-13 This book provides rigorous foundations of applying modern computational mechanics to earthquake engineering. The scope covers the numerical analysis of earthquake wave propagation processes and the faulting processes, and also presents the most advanced numerical simulations of earthquake hazards and disasters that can take place in an urban area. Two new chapters included are advanced topics on high performance computing and for constructing an analysis model. This is the first book in earthquake engineering that explains the application of modern numerical computation (which includes high performance computing) to various engineering seismology problems.

Introduction to Computational Earthquake Engineering

Muneo Hori 2011-05-18 Introduction to Computational Earthquake Engineering covers solid continuum mechanics, finite element method and stochastic modeling comprehensively, with the second and third chapters explaining the numerical simulation of strong ground motion and faulting, respectively. Stochastic modeling is used for uncertain underground structures, and advanced analytical methods for linear and non-linear stochastic models are presented. The verification of these methods by comparing the simulation results with observed data is then presented, and examples of numerical simulations which apply these methods to practical problems are generously provided. Furthermore three advanced topics of computational earthquake engineering are covered, detailing examples of

applying computational science technology to earthquake engineering problems. Contents: Preliminaries: Solid Continuum Mechanics Finite Element Method Stochastic Modeling Strong Ground Motion: The Wave Equation for Solids Analysis of Strong Ground Motion Simulation of Strong Ground Motion Faulting: Elasto-Plasticity and Fracture Mechanics Analysis of Faulting Simulation of Faulting BEM Simulation of Faulting Advanced Topics: Integrated Earthquake Simulation Unified Visualisation of Earthquake Simulation Standardisation of Earthquake Resistant Design Multi-Agent Simulation for Evacuation Process Analysis Appendices: Earthquake Mechanisms Analytical Mechanics Numerical Techniques for Solving Wave Equation Unified Modeling Language Readership: Academic and industry: engineers, students; advanced undergraduates in the field of earthquake engineering. Keywords: Earthquake Engineering; Computational Mechanics; Structural Analysis; Wave Propagation; Elasto-Plastic Analysis; Fracture Analysis; Stochastic Modeling Key Features: Detailed explanation is given to modeling of uncertain ground structures; stochastic modeling which treats the uncertainty in a stochastic manner is used Several key numerical algorithms and techniques are explained in solving large-scale, non-linear and dynamic problems Application of these methods to simulate actual strong ground motion and faulting is presented

Advances in Smalltalk Wolfgang De Meuter 2007-04-05 This book constitutes the thoroughly refereed post-proceedings of the 14th International Smalltalk Conference, ISC 2006, held in Prague, Czech Republic in September 2006. Being a live forum on cutting edge software technologies, the conference attracted researchers and professionals from both academia and industry that produced papers covering topics from foundational issues to advanced applications.

Encyclopedia of Database Technologies and Applications

Rivero, Laura C. 2005-06-30 "Addresses the evolution of database management, technologies and applications along with the progress and endeavors of new research areas."--P. xiii.

Introduction to Computational Earthquake Engineering

Muneo Hori 2006-02-17 This book introduces new research topics in earthquake engineering through the application of computational mechanics and computer science. The topics covered discuss the evaluation of earthquake hazards such as strong ground motion and faulting through applying advanced numerical analysis methods, useful for estimating earthquake disasters. These methods, based on recent progress in solid continuum mechanics and computational mechanics, are summarized comprehensively for graduate students and researchers in earthquake engineering. The coverage includes stochastic modeling as well as several advanced computational earthquake engineering topics. Contents: Preliminaries: Solid Continuum Mechanics Finite Element Method Stochastic Modeling Strong Ground Motion: The Wave Equation for Solids Analysis of Strong Ground Motion Simulation of Strong Ground Motion Faulting: Elasto-Plasticity and Fracture Mechanics Analysis of Faulting Simulation of Faulting BEM Simulation of Faulting Advanced Topics: Integrated Earthquake Simulation Unified Visualization of Earthquake Simulation Standardization of Earthquake Resistant Design Appendices: Earthquake Mechanisms Analytical Mechanics Numerical Techniques of Solving Wave Equation Unified Modeling Language Readership: Graduate students and researchers in earthquake engineering; researchers in computational mechanics and computer science.

An Introduction to Database Systems C. J. Date 2004 This book provides a comprehensive introduction to the large field of database systems through a solid grounding in the foundations of database technology.

Conceptual Modeling - ER 2005 Christian Kop 2005-11-15

Conceptual modeling is fundamental to any domain where one must cope with complex real-world situations and systems because it fosters communication - tween technology experts and those who would benefit from the application of those technologies. Conceptual modeling is the key mechanism for understanding and representing the domains of information system and

database - gineering but also increasingly for other domains including the new "virtual" e-environments and the information systems that support them. The importance of conceptual modeling in software engineering is evidenced by recent interest in "model-driven architecture" and "extreme non-programming". Conceptual modeling also plays a prominent role in various technical disciplines and in the social sciences. The Annual International Conference on Conceptual Modeling (referred to as the ER Conference) provides a central forum for presenting and discussing current research and applications in which conceptual modeling is the major emphasis. In keeping with this tradition, ER 2005, the 24th ER Conference, spanned the spectrum of conceptual modeling including research and practice in areas such as theories of concepts and ontologies underlying conceptual modeling, methods and tools for developing and communicating conceptual models, and techniques for transforming conceptual models into effective (information) system implementations. Moreover, new areas of conceptual modeling including Semantic Web services and the interdependencies of conceptual modeling with knowledge-based, logical and linguistic theories and approaches were also addressed.

Database Management System RP Mahapatra Easy-to-read writing style. Comprehensive coverage of all database topics. Bullet lists and tables. More detailed examples of database implementations. More SQL, including significant information on planned revisions to the language. Simple and easy explanation to complex topics like relational algebra, relational calculus, query processing and optimization. Covers topics on implementation issues like security, integrity, transaction management, concurrency control, backup and recovery etc. Latest advances in database technology.

Multi-Agent Systems and Agreement Technologies Michael

Rovatsos 2016-04-16 This book constitutes the revised selected papers from the 13 European Conference on Multi-Agent Systems, EUMAS 2015, and the Third International Conference on Agreement Technologies, AT 2015, held in Athens, Greece, in December 2015. The 36 papers presented in this volume were carefully reviewed and selected from 65 submissions. They are organized in topical sections named: coordination and planning; learning and optimization, argumentation and negotiation; norms, trust, and reputation; agent-based simulation and agent programming.

Managing Manufacturing Knowledge in Europe in the Era of Industry 4.0 Justyna Patalas-Maliszewska 2022-07-07

Manufacturing companies need to adapt to the requirements of functioning in the era of Industry 4.0 and major technological disruptions. The use of knowledge-based decision support tools has also become necessary in order for enterprises to survive in a competitive environment. This book offers a new approach to designing the knowledge management process and integrating it with the implementation of Industry 4.0 technology. The book presents the methods used in a customer-oriented organization under the Management of Manufacturing Knowledge (M-Know Process). More specifically, methods for defining and collecting customer requirements are presented and methods on how to receive manufacturing knowledge, as well as how to formalise the acquired knowledge using key technologies of Industry 4.0, are discussed. The author also presents real case studies from western and central Europe and offers recommendations for the production manager. The instrumentation of methods and tools to support knowledge management, in the production of individualised products presented therein, will allow the manufacturing company to be transformed digitally, into a customer-oriented organisation operating in accordance with the assumptions of Industry 4.0. This book will be a valuable read for production researchers, academicians, PhD students and postgraduate level students of industrial engineering and industrial management. The practical case studies will also make the book a useful resource for managers of manufacturing enterprises.

Database and data communication network systems Cornelius T. Leondes 2002