This book presents advanced research studies on the topic of artificial intelligence as a component of social and economic relations and processes. It highlights essential research and developments in the fields of informatics and intelligent systems, was organized by the Scientific Research Group in Egypt (SRGE). The book is divided into several sections, covering the following topics: Intelligent Systems, Deep Learning Technology, Document and Sentiment Analysis, Blockchain and Cyber Physical System, Health Informatics and AI against COVID-19, Data Mining, Power and Control Systems, Business Intelligence, Social Media and Digital Transformation, Robotic, Control Design, and Smart Systems.

Artificial Intelligence: Anthropogenic Nature vs. Social Origin Contains 100 multiple-choice practice problems (20 for the morning module and 80 for the afternoon module) for the structural topic on the civil PE exam. Each problem is written to be solved in six minutes—the average amount of time examinees will have on the exam.

Steel Structures

Excavation Systems Planning, Design, and Safety

Information Technology: New Generations The ultimate resource for designers, engineers, and analyst working with calculations of loads and stress.

Artificial Intelligence and Symbolic Computation This book presents the proceedings of the 6th International Conference on Advanced Intelligent Systems and Informatics 2020 (AISI2020), which took place in Cairo, Egypt, from October 19 to 21, 2020. This international and interdisciplinary conference, which highlighted essential research and developments in the fields of informatics and intelligent systems, was organized by the Scientific Research Group in Egypt (SRGE). The book is divided into several sections, covering the following topics: Intelligent Systems, Deep Learning Technology, Document and Sentiment Analysis, Blockchain and Cyber Physical System, Health Informatics and AI against COVID-19, Data Mining, Power and Control Systems, Business Intelligence, Social Media and Digital Transformation, Robotic, Control Design, and Smart Systems.

Hollow Structural Sections This book gathers papers on interactive and collaborative mobile learning environments, assessment, evaluation and research methods in mobile learning, mobile learning models, theory and pedagogy, open and distance mobile learning, life-long and informal learning using mobile devices, wearables and the Internet of Things, game-based learning, dynamic learning experiences, mobile systems and services for opening up education, mobile healthcare and training, case studies on mobile learning, and 5G network infrastructure. Today, interactive mobile technologies have become the core of many—if not all—fields of society. Not only do the younger generation of students expect a mobile working and learning environment, but also the new ideas, technologies and solutions introduced on a nearly daily basis also boost this trend. Discussing and assessing key trends in the mobile field were the primary aims of the 13th International Conference on Interactive Mobile Communication Technologies and Learning (IMCL2019), which was held in Thessaloniki, Greece, from 31 October to 01 November 2019. Since being founded in 2006, the conference has been devoted to new approaches in interactive mobile technologies, with a focus on learning. The IMCL conferences have since become a central forum of the exchange of new research results and relevant trends, as well as best practices. The books intended readership includes policymakers, academics, educators, researchers in pedagogy and learning theory, schoolteachers, further education lecturers, practitioners in the learning industry, etc.

Advanced Intelligent Systems This book presents advanced research studies on the topic of artificial intelligence as a component of social and economic relations and processes. It gathers research papers from the International Research-to-Practice Conference “The 21st Century from the Positons of Modern Science: Intellectual, Digital and Innovative Aspects” (May 23–24, 2019, Nizhny Novgorod, Russia) and the International Research-to-Practice Conference “Economics of Pleasure: a Science of Enjoying Economic Activities” (October 3–5, 2019, Prague, Czech Republic). Both conferences were organized by the Autonomous Non-Profit Organization “Institute of Scientific Communications” (Volgograd). What sets this book apart from other publications on the topic of artificial intelligence is that it approaches AI not as a technological development but as an economic entity. Bringing together papers by representatives of various fields of social and human knowledge, it systematically reflects on various economic, social, and legal aspects of the creation,
1965. The strength and behavior of concrete elements are treated with the primary objective of explaining and justifying the rules and formulas of the ACI Building Code. The treatment is incorporated into the chapters in such a way that the reader may study the concepts in a logical sequence in detail or merely accept a qualitative explanation and proceed directly to the design process using the ACI Code.

Reinforced Concrete Design

Recent Advances in Information Systems and Technologies STEEL DESIGN covers the fundamentals of structural steel design with an emphasis on the design of members and their connections, rather than the integrated design of buildings. The book is designed so that instructors can easily teach LRFD, ASD, or both, time-permitting. The application of fundamental principles is encouraged for design procedures as well as for practical design, but a theoretical approach is also provided to enhance student development. While the book is intended for junior-and senior-level engineering students, some of the later chapters can be used in graduate courses and practicing engineers will find this text to be an essential reference tool for reviewing current practices. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Manual of Steel Construction The 13th International Symposium on Distributed Computing and Artificial Intelligence 2016 (DCAI 2016) is a forum to present applications of innovative techniques for studying and solving complex problems. The exchange of ideas between scientists and technicians from both the academic and industrial sector is essential to facilitate the development of systems that can meet the increasing demands of today's society. The present edition brings together past experiences, current work and promising future trends associated with distributed computing, artificial intelligence and their application in order to provide efficient solutions to real problems. This symposium is organized by the University of Seville (Spain), Osaka Institute of Technology (Japan), and the Universiti Teknologi Malaysia (Malaysia)

Design of Steel Structures Get Deep into the Field of Excavation-Planning, Practice, and Safety Excavation Systems Planning, Design, and Safety is a thorough guide to ensuring your projects are completed correctly, safely, and cost effectively. Concisely written and presented in an easy-to-navigate format, this comprehensive guide arms you with the most current information available. New developments and trends, along with numerous design examples, illustrations, and important OSHA requirements and other legal issues, provide everything you'll need to excel in your field. Ideal for anyone involved in the trade, this indispensable resource brings you up to date on all the critical aspects of your job. Includes: Shoring Designs Standards, Best Practices in Safety Planning Techniques for Protecting Subsurface Utilities Soil Classification Soil Loading on Shoring Systems OSHA Standards Information on Equipment Excavation Systems Planning, Design, and Safety covers: • Overview of Excavation Safety • Excavation Work Planning • Subsurface Installations and Outside Force Damage Protection • Soil Dynamics from an Excavation Perspective • Soil Loading for Protective System Design • Excavation Safety Systems Equipment Design and Use • Legal Issues • Understanding OSHA Excavation Safety Standards • Full Commentary on OSHA Subpart P Excavations • Glossary of Terms

Guide to Stability Design Criteria for Metal Structures This book constitutes the refereed proceedings of the 13th International Conference on Blended Learning, ICBL 2020, held in Bangkok, in August 2020. The 33 papers presented were carefully reviewed and selected from 70 submissions. The conference theme of ICBL 2020 is Blended Learning : Education in a Smart Learning Environment. The papers are organized in topical sections named: Blended Learning, Hybrid Learning, Online Learning, Enriched and Smart Learning, Learning Management System and Content and Instructional Design.

Steel Structures The material is presented in a clear, reader-friendly style. This best-selling text has been fully updated to conform to the latest American Manual of Steel Construction. Both Load and Resistance Factor Design (LRFD) and Allowable Stress Design (ASD) are now covered and calculations are worked out side-by-side to allow for easy identification of the different methods. Use of SI units as an addition to the primary use of Inch-Pound units. New coverage of Lateral Torsional Bending and Hollow Structural Sections. For steel design students and professionals.

Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2020 This book presents a selection of papers from the 2017 World Conference on Information Systems and Technologies (WorldCIST'17), held between the 11st and 13th of April 2017 at Porto Santo Island, Madeira, Portugal. WorldCIST is a global forum for researchers and practitioners to present and discuss recent results and innovations, current trends, professional experiences and challenges involved in modern Information Systems and Technologies research, together with technological developments and applications. The main topics covered are: Information and Knowledge Management; Organizational Models and Information Systems; Software and Systems Modeling; Software Systems, Architectures, Applications and Tools; Multimedia Systems and Applications; Computer Networks, Mobility and Pervasive Systems; Intelligent and Decision Support Systems; Big Data Analytics and Applications; Human-Computer Interaction; Ethics, Computers & Security; Health Informatics; Information Technologies in Education; and Information Technologies in Radiocommunications.

Steel Construction This book gathers papers presented at the 13th International Workshop on Self-Organizing Maps, Learning Vector Quantization, Clustering and Data Visualization (WSOM), which was held in Barcelona, Spain, from the 26th to the 28th of June 2019. Since being founded in 1997, the conference has showcased the state of the art in unsupervised machine learning methods related to the successful and widely used self-organizing map (SOM) method, and extending its scope to clustering and data visualization. In this installment of the AISc series, the reader will find theoretical research on SOM, LVQ and related methods, as well as numerous applications to problems in fields ranging from business and engineering to the life sciences. Given the scope of its coverage, the book will be of interest to machine learning researchers and practitioners in general and, more specifically, to those looking for the latest developments in unsupervised learning and data visualization.

Six-minute Solutions for Civil PE Exam Structural Problems

Load & Resistance Factor Design The present stage of the human civilization is the e-society, which is build over the achievements obtained by the development of the information and communication technologies. It affects everyone, from ordinary mobile phone users to designers of high quality industrial products, and every human activity, from taking
medical care to improving the state governing. The science community working in computer sciences and informatics is therefore under constant challenge; it has to solve the new appeared theoretical problem as well as to find new practical solutions. The fourth ICT Innovations Conference, held in September 2012 in Ohrid, Macedonia, was one of the several worldwide forums where academics, professionals and practitioners presented their last scientific results and development applications in the fields of high performance and parallel computing, bioinformatics, human computer interaction, security and cryptography, computer and mobile networks, neural networks, cloud computing, process verification, improving medical care, improving quality of services, web technologies, hardware implementations, cultural implication. In this book the best 37 ranked articles are presented.

A Beginner’s Guide to the Steel Construction Manual Geschwinder’s 2nd edition of Unified Design of Steel Structures provides an understanding that structural analysis and design are two integrated processes as well as the necessary skills and knowledge in investigating, designing, and detailing steel structures utilizing the latest design methods according to the AISC Code. The goal is to prepare readers to work in design offices as designers and in the field as inspectors. This new edition is compatible with the 2011 AISC code as well as marginal references to the AISC manual for design examples and illustrations, which was seen as a real advantage by the survey respondents. Furthermore, new sections have been added on: Direct Analysis, Torsional and Flexural-Torsional buckling of columns, Filled HSS columns, and Composite column interaction. More real-world examples are included in addition to new use of three-dimensional illustrations in the book and in the Image Gallery; an increased number of homework problems; and media approach Solutions Manual, Image Gallery.

Blended Learning. Education in a Smart Learning Environment

Structural Steel Design This volume contains 70 papers presented at CSI 2014: Emerging ICT for Bridging the Future: Proceedings of the 49th Annual Convention of Computer Society of India. The convention was held during 12-14, December, 2014 at Hyderabad, Telangana, India. This volume contains papers mainly focused on Machine Learning & Computational Intelligence, Ad hoc Wireless Sensor Networks and Networks Security, Data Mining, Data Engineering and Soft Computing.

Connections in Steel Structures This book describes the latest research accomplishments, innovations, and visions in the field of robotics as presented at the 13th International Conference on Intelligent Autonomous Systems (IAS), held in Padua in July 2014, by leading researchers, engineers, and practitioners from across the world. The contents amply confirm that robots, machines, and systems are rapidly achieving intelligence and autonomy, mastering more and more capabilities such as mobility and manipulation, sensing and perception, reasoning, and decision making. A wide range of research results and applications are covered, and particular attention is paid to the emerging role of autonomous robots and intelligent systems in industrial production, which reflects their maturity and robustness. The contributions have been selected through a rigorous peer-review process and contain many exciting and visionary ideas that will further galvanize the research community, spurring novel research directions. The series of biennial IAS conferences commenced in 1986 and represents a premiere event in robotics.

Architecturally Exposed Structural Steel An introductory textbook for teaching structural steel design to civil and structural engineering students.

Emerging ICT for Bridging the Future - Proceedings of the 49th Annual Convention of the Computer Society of India CSI Volume 2 This work on structural stability has been written primarily as a textbook to provide a clear understanding of theoretical stability behaviour. It will give readers a basic understanding of the design specifications developed by, for example, AISC, and implemented in building codes by IBC.

Internet of Things, Infrastructures and Mobile Applications Intelligent systems have been initiated with the attempt to imitate the human brain. People wish to let machines perform intelligent works. Many techniques of intelligent systems are based on artificial intelligence. According to changing and novel requirements, the advanced intelligent systems cover a wide spectrum: big data processing, intelligent control, advanced robotics, artificial intelligence and machine learning. This book focuses on coordinating intelligent systems with highly integrated and foundationally functional components. The book consists of 19 contributions that features social network-based recommender systems, application of fuzzy enforcement, energy visualization, ultrasonic muscular thickness measurement, regional analysis and predictive modeling, analysis of 3D polygon data, blood pressure estimation system, fuzzy human model, fuzzy ultrasonic imaging method, ultrasonic mobile smart technology, pseudo-normal image synthesis, subspace classifier, mobile object tracking, standing-up motion guidance system, recognition structure, multi-CAM and multi-viewer, robust Gaussian Kernel, multi human movement trajectory extraction and fashion coordination. This edition is published in original, peer reviewed contributions covering from initial design to final prototypes and authorization.

Roark’s Formulas for Stress and Strain

Steel Construction This book is the Proceedings of a State-of-the-Art Workshop on Connexions and the Behaviour, Strength and Design of Steel Structures held at Laboratoire de Mecanique et Technologie, Ecole Normale, Cachan France from 25th to 27th May 1987. It contains the papers presented at the above proceedings and is split into eight main sections covering: Local Analysis of Joints, Mathematical Models, Classification, Frame Analysis, Frame Stability and Simplified Methods, Design Requirements, Data Base Organisation, Research and Development Needs. With papers from 50 international contributors this text will provide essential reading for all those involved with steel structures.

Modern Steel Construction This book constitutes the refereed proceedings of the 13th International Conference on Artificial Intelligence and Symbolic Computation, AISC 2018, held in Suzhou, China, in September 2018. The 13 full papers presented together with 5 short and 2 invited papers were carefully reviewed and selected from 31 submissions. The AISC conference is an important forum when it comes to ensuring that ideas, theoretical insights, methods and results from traditional AI can be discussed and showcased, while fostering new links with other areas of AI such as probabilistic reasoning and deep learning.

Intelligent Autonomous Systems 13

246 Solved Structural Engineering Problems The definitive guide to steel connection design—fully revised to cover the latest advances. Featuring contributions from a team of
industry-recognized experts, this up-to-date resource offers comprehensive coverage of every type of steel connection. The book explains leading methods for connecting structural steel components—including state-of-the-art techniques and materials—and contains new information on fastener and welded joints. Thoroughly updated to align with the latest AISC and ICC codes, Handbook of Structural Steel Connection Design and Details, Third Edition, features brand-new material on important structural engineering topics that are hard to find covered elsewhere. You will get complete details on fastener installation, space truss connections, composite member connections, seismic codes, and inspection and quality control requirements. The book also includes LRFD load guidelines and requirements from the American Welding Society. • Distills ICC and AISC 2016 standards and explains how they relate to steel connections • Features hundreds of detailed examples, photographs, and illustrations • Each chapter is written by a leading expert from industry or academia

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