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Selection of the Year 2017

Autumn 2017
New Publications
Computer Science

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Closing date: July 2017
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<th>Due July 2017</th>
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<td><strong>Mobile Health</strong></td>
<td><strong>Cuteness Engineering</strong></td>
<td><strong>The Musical-Mathematical Mind</strong></td>
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<td>J. M. Rehg, Georgia Institute of Technology, Atlanta, GA, USA; S. A. Murphy, University of Michigan, Ann Arbor, MI, USA; S. Kumar, University of Memphis, Memphis, TN, USA (Eds)</td>
<td>A. Marcus; X. Ma; M. Kurosu; A. Hashizume</td>
<td>G. Pareyon, Centro Nacional de las Artes (CENART), Coyoacán; S. Pina-Romero, Universidad de Guadalajara, Guadalajara; O. A. Agustín-Aquino, La Universidad de la Cañada, Teotitlan de Flores Magón; E. Lluis-Puebla, UNAM Facultad de Ciencias, Coyoacán (Eds)</td>
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<tr>
<td><strong>An Introduction to Distance Geometry applied to Molecular Geometry</strong></td>
<td><strong>Designing Adorable Products and Services</strong></td>
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<td>This book is a pedagogical presentation aimed at advanced undergraduate students, beginning graduate students and professionals who are looking for an introductory text to the field of Distance Geometry, and some of its applications. This version profits from feedback acquired at undergraduate/graduate courses in seminars and a number of workshops. 2017. IX, 54 p. 27 illus. in color. (SpringerBriefs in Computer Science) Softcover</td>
<td>This state of the art monograph presents a unique introduction to thinking about cuteness and its incorporation into modern, especially computer-based, products and services. Cuteness is defined and explored in relation to user-centered design concepts and methods, in addition to considering the history of cuteness and cuteness in other cultures, especially in relation to eastern Asia. [...] 2017. XVI, 161 p. 121 illus., 73 illus. in color. (Springer Series on Cultural Computing) Hardcover</td>
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<td><strong>The Web at Graduation and Beyond</strong></td>
<td><strong>Health Informatics Data Analysis</strong></td>
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<td>G. Vossen, University of Münster, Münster, Germany; F. Schönthaler, PROMATIS software GmbH, Ettlingen, Germany; S. Dillon, University of Waikato, Hamilton, New Zealand</td>
<td>Methods and Examples</td>
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<td>This book provides a comprehensive introduction to mHealth technology and is accessible to technology-oriented researchers and practitioners with backgrounds in computer science, engineering, statistics, and applied mathematics. [...] 2017. X, 542 p. 128 illus., 100 illus. in color. Hardcover</td>
<td>This book provides a comprehensive overview of different biomedical data types, including both clinical and genomic data. [...] 2017. X, 210 p. 54 illus. (Health Information Science) Hardcover</td>
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<tr>
<td>Springer</td>
<td>Deep Learning and Convolutional Neural Networks for Medical Image Computing</td>
<td>L. Lu; Y. Zheng; G. Carneiro; L. Yang (Eds)</td>
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<td>Springer</td>
<td>Handbook of Convex Optimization Methods in Imaging Science</td>
<td>V. Monga. The Pennsylvania State University, University Park, PA, USA (Ed)</td>
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<td>Deep Learning in Object Detection and Recognition</td>
<td>X. Jiang; A. Hadid; Y. Pang; E. Granger; X. Feng (Eds)</td>
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<td>Springer</td>
<td>Domain Adaptation in Computer Vision Applications</td>
<td>G. Csurka, Xerox Research Centre Europe, Meylan (Ed)</td>
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**Guide to Medical Image Analysis**

Authors: K. D. Toennies, Otto-von-Guericke-Universität Magdeburg Computer Science Department, ISG, Magdeburg, Germany

Methods and Algorithms

This comprehensive guide provides a uniquely practical, application-focused introduction to medical image analysis. This fully updated new edition has been enhanced with material on the latest developments in the field, whilst retaining the original focus on segmentation, classification and registration. [...] 2nd ed. 2017. XXIV, 589 p. 384 illus., 197 illus. in color. (Advances in Computer Vision and Pattern Recognition) Hardcover

$ 89.99  

**Handbook of Remote Biometrics For Surveillance and Security**

Authors: M. Tistarelli; S. Z. Li; R. Chellappa (Eds)

This comprehensive and innovative handbook covers several aspects of biometrics from the perspective of recognizing individuals at a distance, in motion, and under a surveillance scenario. [...] 2nd ed. 2017. Approx. 400 p. (Advances in Computer Vision and Pattern Recognition) Hardcover

approx.$ 69.99  
Digital Marketplaces Unleashed

This collection of different views on how digitalization is influencing various industrial sectors addresses essential topics like big data and analytics, fintech and insuretech, cloud and mobility technologies, disruption and entrepreneurship. [...]
2017. XXXVI, 933 p. 153 illus. in color. Hardcover
$119.00
ISBN 978-3-662-49274-1

Handbook of Large-Scale Distributed Computing in Smart Healthcare

This volume offers readers various perspectives and visions for cutting-edge research in ubiquitous healthcare. [...]
2017. XI, 635 p. 207 illus. (Scalable Computing and Communications) Hardcover
approx.$349.00
ISBN 978-3-319-58279-5

Network Traffic Anomaly Detection and Prevention

This indispensable text/reference presents a comprehensive overview on the detection and prevention of anomalies in computer network traffic, from coverage of the fundamental theoretical concepts to in-depth analysis of systems and methods. [...] 2017. XXII, 251 p. 83 illus. (Computer Communications and Networks) Hardcover
approx.$69.99
ISBN 978-3-319-65186-6

Handbook of Large-Scale Distributed Computing

This book addresses the emerging area of cloud computing, providing a comprehensive overview of the research areas, recent work and open research problems. [...] 2017. Approx. 450 p. 210 illus., 10 illus. in color. Hardcover
$129.00
ISBN 978-981-10-5025-1
Hybrid Intelligence for Social Networks

This book explains aspects of social networks, varying from development and application of new artificial intelligence and computational intelligence techniques for social networks to understanding the impact of social networks. [...]
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<th>Author(s)</th>
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<td>Deep Learning for Biometrics</td>
<td>B. Bhanu, University of California, Riverside, CA; A. Kumar, Hong Kong Polytechnic University, Hong Kong</td>
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<td>$129.00</td>
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<td>G. Dodig-Crnkovic, Västerås, Sweden; R. Giovagnoli, Pontifical Lateran University, Rome, Italy</td>
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M. S. Raza; U. Qamar

Understanding and Using Rough Set Based Feature Selection: Concepts, Techniques and Applications

The book will provide: 1) In depth explanation of rough set theory along with examples of the concepts. 2) Detailed discussion on idea of feature selection. 3) Details of various representative and state of the art feature selection techniques along with algorithmic explanations. […]

2017. XIII, 194 p. 75 illus. Hardcover
$ 109.00
ISBN 978-981-10-4964-4

M. M. Richter; S. Paul

Signal Processing and Machine Learning with Applications

The authors offer a comprehensive guide to machine learning applied to signal processing and recognition problems, and then discuss real applications in domains such as speech processing and biomedical signal processing, with a focus on handling noise. This textbook is intended for advanced undergraduate and graduate students of computer science and engineering.

approx.$ 79.99
ISBN 978-3-319-45371-2

L. F. Sikos, Flinders University, Adelaide, Australia

Description Logics in Multimedia Reasoning

This book illustrates how to use description logic-based formalisms to their full potential in the creation, indexing, and reuse of multimedia semantics. To do so, it introduces researchers to multimedia semantics by providing an in-depth review of state-of-the-art standards, technologies, ontologies, and software tools. […]

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ISBN 978-3-319-54065-8

G. Tambouratzis; M. Vassiliou; S. Sofianopoulos

Machine Translation with Minimal Reliance on Parallel Resources

This book provides a unified view on a new methodology for Machine Translation (MT). This methodology extracts information from widely available resources (extensive monolingual corpora) while only assuming the existence of a very limited parallel corpus, thus having a unique starting point to Statistical Machine Translation (SMT). […]

2017. VIII, 105 p. 17 illus. (SpringerBriefs in Statistics) Softcover
$ 54.99
ISBN 978-3-319-63105-8

S. Shahrestani, Western Sydney University, Sydney, Australia

Internet of Things and Smart Environments

Assistive Technologies for Disability, Dementia, and Aging

This book is focused on the Internet of Things (IoT) services and smart environments that can be of assistance to the elderly and individuals living with dementia or some sensory impairment. The book outlines the requirements of the systems that aim to furnish some digital sensory or cognitive assistance to the individuals and their caregivers. […]

2017. XIV, 122 p. 21 illus. in color. Hardcover
$ 89.99
ISBN 978-3-319-60163-2

O. Topçu, Middle East Technical University, Kalkanlı, Mersin, Turkey; H. Oğuztüzün, Middle East Technical University Department of Computer Engineering, Ankara

Guide to Distributed Simulation with HLA

This invaluable textbook/reference provides a hands-on guide to the application of good software development practices to the construction of distributed simulation systems, with a particular focus on High Level Architecture (HLA). […]

2017. XXV, 307 p. 203 illus., 183 illus. in color. (Simulation Foundations, Methods and Applications) Hardcover
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Advances in User Authentication

This book is dedicated to advances in the field of user authentication. The book covers detailed description of the authentication process as well as types of authentication modalities along with their several features (authentication factors). [...]

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Springer

D. Dasgupta, The University of Memphis, Memphis, TN, USA; A. Roy, The University of Memphis, Memphis, TN, USA; A. Nag, The University of Memphis, Memphis, TN, USA

Guide to Modeling and Simulation of Systems of Systems

This easy-to-follow textbook provides an exercise-driven guide to the use of the Discrete Event Systems Specification (DEVS) simulation modeling formalism and the System Entity Structure (SES) simulation model ontology supported with the latest advances in software architecture and design principles, methods, and tools for building and testing virtual Systems of Systems (SoS). [...]

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R. J. Urbanowicz, University of Pennsylvania, Philadelphia, PA; W. N. Browne, Victoria University of Wellington, Wellington

Computational Creativity

The Philosophy and Engineering of Autonomously Creative Systems

Computational creativity is an emerging field of research within AI that focuses on the capacity of machines to both generate and evaluate novel outputs that would, if produced by a human, be considered creative. [...]


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T. Veale, University College Dublin, Dublin, Ireland; A. Cardoso, University of Coimbra, Coimbra, Portugal (Eds)

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A State-of-the-Art Summary 6

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Automated Usability Evaluation Through Computational Introspection of Model-Based User Interfaces

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The book studies the existing and potential connections between Social Network Analysis (SNA) and Formal Concept Analysis (FCA) by showing how standard SNA techniques, usually based on graph theory, can be supplemented by FCA methods, which rely on lattice theory.

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S. R. Sinha, Johnson Controls International, Milwaukee, WI, USA; Y. Park, Johnson Controls International, Milwaukee, WI, USA

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This descriptive, practical guide explains how to build a commercially impactful, operationally effective and technically robust IoT ecosystem that takes advantage of the IoT revolution and drives business growth in the consumer IoT as well as industrial internet spaces. [...] 
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Z. Wang, Tsinghua University, Shenzhen, China; W. Zhu, Tsinghua University, Beijing, China; S. Yang, Tsinghua University, Beijing, China

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J. Sottet; J. Vanderdonckt; A. García Frey (Eds)

Human Centered Software Product Lines

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S. Wu; Q. Liu; L. Wang; T. Tan

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This book presents two collaborative prediction approaches based on contextual representation and hierarchical representation, and their applications including context-aware recommendation, latent collaborative retrieval and click-through rate prediction. [...] 
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This is a book about numbers and how those numbers are represented in and operated on by computers. It is crucial that developers understand this area because the numerical operations allowed by computers, and the limitations of those operations, especially in the area of floating point math, affect virtually everything people try to do with computers.

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In this book origami is treated as basic geometrical operations that are represented and manipulated symbolically and graphically by computers. It is explained how classical and modern geometrical problems are solved by origami.

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This is a book about numbers and how those numbers are represented in and operated on by computers. It is crucial that developers understand this area because the numerical operations allowed by computers, and the limitations of those operations, especially in the area of floating point math, affect virtually everything people try to do with computers.

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