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This book and its companion volume, LNCS vols. 7928 and 7929 constitute the proceedings of the 4th International Conference on Swarm Intelligence, ICSI 2013, held in Harbin, China in June 2013. The 129 revised full papers presented were carefully reviewed and selected from 268 submissions. The papers are organized in 22 cohesive sections covering all major topics of swarm intelligence research and developments. The topics covered in this volume are: hybrid algorithms, swarm-robot and multi-agent systems, support vector machines, data mining methods, system and information security, intelligent control, wireless sensor network, scheduling and path planning, image and video processing, and other applications.

During the past decade there has been an explosion in computation and information technology. With it have come vast amounts of data in a variety of fields such as medicine, biology, finance, and marketing. The challenge of understanding these data has led to the development of new tools in the field of statistics, and spawned new areas such as data mining, machine learning, and bioinformatics. Many of these tools have common underpinnings but are often expressed with different terminology. This book describes the important ideas in these areas in a common conceptual framework. While the approach is statistical, the emphasis is on concepts rather than mathematics. Many examples are given, with a liberal use of color graphics. It should be a valuable resource for statisticians and anyone interested in data mining in science or industry. The book's coverage is broad, from supervised learning (prediction) to unsupervised learning. The many topics include neural networks, support vector machines, classification trees and boosting---the first comprehensive treatment of this topic in any book. This major new edition features many topics not covered in the original, including graphical models, random forests, ensemble methods, least angle regression & path algorithms for the lasso, non-negative matrix factorization, and spectral clustering. There is also a chapter on methods for "wide" data (p bigger than n), including multiple testing and false discovery rates. Trevor Hastie, Robert Tibshirani, and Jerome Friedman are professors of statistics at Stanford University. They are prominent researchers in this area: Hastie and Tibshirani developed generalized additive models and wrote a popular book of that title. Hastie co-developed much of the statistical modeling software and environment in R/S-PLUS and invented principal curves and surfaces. Tibshirani proposed the lasso and is co-author of the very successful An Introduction to the Bootstrap. Friedman is the co-inventor of many data-mining tools including CART, MARS, projection pursuit and gradient boosting.

This book constitutes the refereed proceedings of the 7th International Conference on Digital Human Modelling: Applications in Health, Safety, Ergonomics and Risk Management, DHM 2016, held as part of the 18th International

Conference on Human-Computer Interaction, HCII 2016, held in Toronto, ON, Canada, in July 2016 and received a total of 4354 submissions, of which 1287 papers were accepted for publication after a careful reviewing process. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. This volume contains papers addressing the following major topics: anthropometry, ergonomics, design and comfort; physiology and anatomy models; motion prediction and recognition; quality and safety in healthcare; design for health; work design and support; modeling human behavior and cognition.

This book constitutes the refereed proceedings of the 5th Mexican Conference on Pattern Recognition, MCPR 2013, held in Huatulco, Mexico, in June 2013. The 36 revised full papers and two keynotes presented were carefully reviewed and selected from 81 submissions and are organized in topical sections on computer vision; image processing; pattern recognition and artificial intelligence; neural networks; document processing.

This book constitutes the refereed proceedings of the 18th Scandinavian Conference on Image Analysis, SCIA 2013, held in Espoo, Finland, in June 2013. The 67 revised full papers presented were carefully reviewed and selected from 132 submissions. The papers are organized in topical sections on feature extraction and segmentation, pattern recognition and machine learning, medical and biomedical image analysis, faces and gestures, object and scene recognition, matching, registration, and alignment, 3D vision, color and multispectral image analysis, motion analysis, systems and applications, human-centered computing, and video and multimedia analysis.

This book constitutes the proceedings of the 5th International Conference on Intelligent Technologies for Interactive Entertainment, INTETAIN 2013. The 23 full papers presented were carefully selected from numerous submissions. The conference aims at enhancing the understanding of recent and anticipated advances in interactive technologies, and their applications to entertainment, education, culture, and the arts. The papers are grouped in topical sections on linked media, gaming technologies, and technologies for live entertainment.

This volume includes papers presented at IIH-MSP 2017, the 13th International Conference on Intelligent Information Hiding and Multimedia Signal Processing, held on 12–15 August 2017 in Matsue, Shimane, Japan. The conference covered topics ranging from information hiding and security, and multimedia signal processing and networking, to bio-inspired multimedia technologies and systems. This volume focuses on subjects related to multimedia security and applications, wearable computing, Internet of Things (IoT) privacy and information security, biomedical system design and applications, emerging techniques and applications, soft computing and applications, applications of image encoding

and rendering, and information hiding and its criteria. Updated with the latest research outcomes and findings, the papers presented appeal to researchers and students in the corresponding fields.

This book constitutes the refereed proceedings of the 19th International Conference on Engineering Applications of Neural Networks, EANN 2019, held in Xersonisos, Crete, Greece, in May 2019. The 35 revised full papers and 5 revised short papers presented were carefully reviewed and selected from 72 submissions. The papers are organized in topical sections on AI in energy management - industrial applications; biomedical - bioinformatics modeling; classification - learning; deep learning; deep learning - convolutional ANN; fuzzy - vulnerability - navigation modeling; machine learning modeling - optimization; ML - DL financial modeling; security - anomaly detection; 1st PEINT workshop.

This book details the state-of-the-art of research and development in design computing and design cognition. It features more than 35 papers that were presented at the Sixth International Conference on Design Computing and Cognition, DCC'14, held at University College, London, UK. Inside, readers will find the work of expert researchers and practitioners that explores both advances in theory and application as well as demonstrates the depth and breadth of design computing and design cognition. This interdisciplinary coverage, which includes material from international research groups, examines design synthesis, design cognition, design creativity, design processes, design theory, design grammars, design support and design ideation. Overall, the papers provide a bridge between design computing and design cognition. The confluence of these two fields continues to build the foundation for further advances and leads to an increased understanding of design as an activity whose influence continues to spread. As a result, the book will be of particular interest to researchers, developers and users of advanced computation in design and those who need to gain a better understanding of designing that can be obtained through empirical studies.

This book constitutes the refereed proceedings of the First International Conference on Geometric Science of Information, GSI 2013, held in Paris, France, in August 2013. The nearly 100 papers presented were carefully reviewed and selected from numerous submissions and are organized into the following thematic sessions: Geometric Statistics on Manifolds and Lie Groups, Deformations in Shape Spaces, Differential Geometry in Signal Processing, Relational Metric, Discrete Metric Spaces, Computational Information Geometry, Hessian Information Geometry I and II, Computational Aspects of Information Geometry in Statistics, Optimization on Matrix Manifolds, Optimal Transport Theory, Probability on Manifolds, Divergence Geometry and Ancillarity, Entropic Geometry, Tensor-Valued Mathematical Morphology, Machine/Manifold/Topology Learning, Geometry of Audio Processing, Geometry of Inverse Problems, Algebraic/Infinite dimensional/Banach Information Manifolds, Information Geometry Manifolds, and Algorithms on Manifolds.

The two volume sets LNCS 8033 and 8034 constitutes the refereed proceedings of the 9th International Symposium on Visual Computing, ISVC 2013, held in Rethymnon, Crete, Greece, in July 2013. The 63 revised full papers and 35 poster papers presented together with 32 special track papers were carefully reviewed and selected from more than 220 submissions. The papers are organized in topical sections: Part I (LNCS 8033) comprises computational bioimaging; computer graphics; motion, tracking and recognition; segmentation; visualization; 3D mapping, modeling and surface reconstruction; feature extraction, matching and recognition; sparse methods for computer vision, graphics and medical imaging; and face processing and recognition. Part II (LNCS 8034) comprises topics such as visualization; visual

computing with multimodal data streams; visual computing in digital cultural heritage; intelligent environments: algorithms and applications; applications and virtual reality.

This book constitutes the refereed proceedings of the five workshops that were organized in conjunction with the International Conference on Business Information Systems, BIS 2015, which took place in Poznan, Poland, in June 2015. The 26 papers in this volume were carefully reviewed and selected from 56 submissions and were revised and extended after the event. The workshop topics covered knowledge-based business information systems (AKTB), business and IT alignment (BITA), transparency-enhancing technologies and privacy dashboards (PTDCS), semantics usage in enterprises (FSFE), and issues related to DBpedia. In addition two keynote papers are included in this book.

This six volume set LNCS 11063 – 11068 constitutes the thoroughly refereed conference proceedings of the 4th International Conference on Cloud Computing and Security, ICCCS 2018, held in Haikou, China, in June 2018. The 386 full papers of these six volumes were carefully reviewed and selected from 1743 submissions. The papers cover ideas and achievements in the theory and practice of all areas of inventive systems which includes control, artificial intelligence, automation systems, computing systems, electrical and informative systems. The six volumes are arranged according to the subject areas as follows: cloud computing, cloud security, encryption, information hiding, IoT security, multimedia forensics

This volume constitutes the thoroughly refereed conference proceedings of the 26th International Conference on Industrial Engineering and Other Applications of Applied Intelligence Systems, IEA/AIE 2013, held in Amsterdam, The Netherlands, in June 2013. The total of 71 papers selected for the proceedings were carefully reviewed and selected from 185 submissions. The papers focus on the following topics: auctions and negotiation, cognitive modeling, crowd behavior modeling, distributed systems and networks, evolutionary algorithms, knowledge representation and reasoning, pattern recognition, planning, problem solving, robotics, text mining, advances in recommender systems, business process intelligence, decision support for safety-related systems, innovations in intelligent computation and applications, intelligent image and signal processing, and machine learning methods applied to manufacturing processes and production systems.

This book constitutes the thoroughly refereed conference proceedings of the International Workshop on Brain-inspired Computing, BrainComp 2013, held in Cetraro, Italy, in July 2013. The 16 revised full papers were carefully reviewed and selected from numerous submissions and cover topics such as brain structure and function as a neuroscience perspective, computational models and brain-inspired computing, HPC and visualization for human brain simulations.

Numerical and computational methods are nowadays used in a wide range of contexts in complex systems research, biology, physics, and engineering. Over the last decades different methodological schools have emerged with emphasis on different aspects of computation, such as nature-inspired algorithms, set oriented numerics, probabilistic systems and Monte Carlo methods. Due to the use of different terminologies and emphasis on different aspects of algorithmic performance there is a strong need for a more integrated view and opportunities for cross-fertilization across particular disciplines. These proceedings feature 20 original publications from distinguished authors in the cross-section of computational sciences, such as machine learning algorithms and probabilistic models, complex networks and fitness landscape analysis, set oriented numerics and cell mapping, evolutionary multiobjective optimization, diversity-oriented search, and the foundations of genetic programming algorithms. By presenting cutting edge results with a strong focus on foundations and integration aspects this work presents a stepping stone towards efficient, reliable, and well-analyzed methods for complex systems management and analysis.

This book constitutes the thoroughly refereed proceedings of the 10th International Conference on Image Analysis and Recognition, ICIAR 2013, held in Póvoa do Varzim, Portugal, in June 2013, The 92 revised full papers presented were carefully reviewed and selected from 177 submissions. The papers are organized in topical sections on biometrics: behavioral; biometrics: physiological; classification and regression; object recognition; image processing and analysis: representations and models, compression, enhancement , feature detection and segmentation; 3D image analysis; tracking; medical imaging: image segmentation, image registration, image analysis, coronary image analysis, retinal image analysis, computer aided diagnosis, brain image analysis; cell image analysis; RGB-D camera applications; methods of moments; applications.

The micro- and nano-modification of infrastructure materials and the associated multi-scale characterization and simulation has the potential to open up whole new uses and classes of materials, with wide-ranging implications for society. The use of multi-scale characterization and simulation brings the ability to target changes at the very small scale that predictably effect the bulk behavior of the material and thus allowing for the optimization of material behavior and performance. The International RILEM Symposium on Multi-Scale Modeling and Characterization of Infrastructure Materials (Stockholm, June 10-12, 2013) brought together key researchers from around the world to present their findings and ongoing research in this field in a focused environment with extended discussion times. From asphalt to concrete, from chemistry to mechanics, from nano- to macro-scale: the collection of topics covered by the Symposium represents the width and depth of the currently ongoing efforts of developing more sustainable infrastructure materials. Researchers, practitioners, undergraduates and graduate students engaged in infrastructure materials or multi-scale characterization and modeling efforts can use this book as a comprehensive reference, to learn about the currently ongoing research efforts in this field or as an inspiration for new research ideas to enhance the long-term performance of infrastructure materials from a fundamental perspective. The Symposium was held under the auspices of the RILEM Technical Committee on Nanotechnology-Based Bituminous Materials 231-NBM and the Transport Research Board (TRB) Technical Committee on Characteristics of Asphalt Materials AFK20.

This volume constitutes the refereed proceedings of the 6th International Conference on Multimedia Communications, Services and Security, MCSS 2013, held in Krakow, Poland, in June 2013. The 27 full papers included in the volume were selected from numerous submissions. The papers cover various topics related to multimedia technology and its application to public safety problems.

One of the Best Books of 2020 — Financial Times One of the "Most 2020 Books of 2020" — Washington Post One of the Best Science Books of 2020 — The Times of London One of the Best Science Books of 2020 — The Guardian From ideas and infections to financial crises and fake news, an "utterly timely" look at why the science of outbreaks is the science of modern life These days, whenever anything spreads, whether it's a YouTube fad or a political rumor, we say it went viral. But how does virality actually work? In The Rules of Contagion, epidemiologist Adam Kucharski explores topics including gun violence, online manipulation, and, of course, outbreaks of disease to show how much we get wrong about contagion, and how astonishing the real science is.

Why did the president retweet a Mussolini quote as his own? Why do financial bubbles take off so quickly? Why are disinformation campaigns so effective? And what makes the emergence of new illnesses -- such as MERS, SARS, or the coronavirus disease COVID-19 -- so challenging? By uncovering the crucial factors driving outbreaks, we can see how things really spread -- and what we can do about it. Whether you are an author seeking an audience, a defender of truth, or simply someone interested in human social behavior, The Rules of Contagion is an essential guide to modern life.

This book covers the different aspects of modern 3D multimedia technologies by addressing several elements of 3D visual communications systems, using diverse content formats, such as stereo video, video-plus-depth and multiview, and coding schemes for delivery over networks. It also presents the latest advances and research results in regards to objective and subjective quality evaluation of 3D visual content, extending the human factors affecting the perception of quality to emotional states. The contributors describe technological developments in 3D visual communications, with particular emphasis on state-of-the-art advances in acquisition of 3D visual scenes and emerging 3D visual representation formats, such as: multi-view plus depth and light field; evolution to freeview and light-field representation; compression methods and robust delivery systems; and coding and delivery over various channels. Simulation tools, testbeds and datasets that are useful for advanced research and experimental studies in the field of 3D multimedia delivery services and applications are covered. The international group of contributors also explore the research problems and challenges in the field of immersive visual communications, in order to identify research directions with substantial economic and social impact. 3D Visual Content Creation, Coding and Delivery provides valuable information to engineers and computer scientists developing novel products and services with emerging 3D multimedia technologies, by discussing the advantages and current limitations that need to be addressed in order to develop their products further. It will also be of interest to students and researchers in the field of multimedia services and applications, who are particularly interested in advances bringing significant potential impact on future technological developments.

This book constitutes the refereed proceedings of the 5th International Conference on Distributed, Ambient and Pervasive Interactions, DAPI 2013, held as part of the 15th International Conference on Human-Computer Interaction, HCII 2013, held in Las Vegas, USA in July 2013, jointly with 12 other thematically similar conferences. The total of 1666 papers and 303 posters presented at the HCII 2013 conferences was carefully reviewed and selected from 5210 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 54 contributions was carefully reviewed and selected for inclusion in the DAPI proceedings. The papers are organized in the following topical sections: natural interaction; context-awareness in smart and intelligent environments; design and evaluation of smart and intelligent environments; smart cities; multi-user, group and collaborative interaction; smart everyday living and working environments.

This book gathers technical and scientific articles by leading experts from 15 countries and originally presented at the world’s

most prestigious forum on coal preparation: the XVIII International Coal Preparation Congress. Topics addressed include: the mineral resources basis of the coal industry; problems and prospects of development in the coal industry; crushing, grinding, screening and classification processes used at sorting plants; coal processing and briquette factories; review of plant designs and operations used around the world; new developments in dense-medium separators, water-based separation processes, froth flotation and dewatering; technologies and equipment for the dry separation of coal; coal deep processing technologies and equipment; energy generation as an area of coal deep processing; and simulation and optimization software for separation processes.In general, the future of coal around the world is defined by its competitiveness. As the cheapest form of fuel (comparatively speaking), coal undoubtedly continues to be in high demand around the world.

The two-volume set LNAI 7894 and LNCS 7895 constitutes the refereed proceedings of the 12th International Conference on Artificial Intelligence and Soft Computing, ICAISC 2013, held in Zakopane, Poland in June 2013. The 112 revised full papers presented together with one invited paper were carefully reviewed and selected from 274 submissions. The 56 papers included in the second volume are organized in the following topical sections: evolutionary algorithms and their applications; data mining; bioinformatics and medical applications; agent systems, robotics and control; artificial intelligence in modeling and simulation; and various problems of artificial intelligence.

This book constitutes the thoroughly refereed post-conference proceedings of the 4th International Conference on Intelligence Science and Big Data Engineering, IScIDE 2013, held in Beijing, China, in July/August 2013. The 111 papers presented were carefully peer-reviewed and selected from 390 submissions. Topics covered include information theoretic and Bayesian approaches; probabilistic graphical models; pattern recognition and computer vision; signal processing and image processing; machine learning and computational intelligence; neural networks and neuro-informatics; statistical inference and uncertainty reasoning; bioinformatics and computational biology and speech recognition and natural language processing.

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Today, there are few in senior management positions who can afford to ignore modern information technology, and few individuals who would prefer to be without it. Modern IT is key to organizational performance; yet we often assume the benefits will occur without forethought or effort. As managerial tasks become more complex, so the nature of the required information systems changes – from structured, routine support to ad hoc, unstructured, complex enquiries at the highest levels of management. If taken for granted, serious implications can arise for organizations. This fifth edition of Strategic Information Management has been brought fully up to date with recent developments in the management of information systems, including digital transformation strategy, the issues surrounding big data and algorithmic decision-making. The book provides a rich source of material reflecting recent thinking on the key issues facing executives, drawing from a wide range of contemporary articles written by leading experts in North America, Europe, and Australia. Combining theory with practice, each section is fully introduced, includes further reading and questions for further discussion. Designed for MBA, master's level students, and advanced undergraduate students taking courses in information systems management, it also provides a wealth of information and references for researchers.

This book constitutes the proceedings of the 4th International Conference on Information Processing in Computer-Assisted Interventions IPCAI 2013, held in Heidelberg, Germany, on June 26, 2013. The 11 papers presented were carefully reviewed and selected from 20 submissions. The papers are organized in topical sections on simulation, neurosurgical interventions, ultrasound guided interventions, and image guided interventions.

This book (CCIS 899) constitutes the refereed proceedings of the First International Conference on Applications of Computing and Communication Technologies, ICACCT 2018, held in Delhi, India, in March 2018. The 30 full papers were carefully reviewed and selected from 109 submissions. The papers are organized in topical sections on communication and system technologies, computing and network technologies, application and services.

This book constitutes the refereed proceedings of the 15th International Symposium on Neural Networks, ISNN 2018, held in Minsk, Belarus in June 2018.The 98 revised regular papers presented in this volume were carefully reviewed and selected from 214 submissions. The papers cover many topics of neural network-related research including intelligent control, neurodynamic analysis, bio-signal, bioinformatics and biomedical engineering, clustering, classification, forecasting, models, algorithms, cognitive computation, machine learning, and optimization.?

This book constitutes the refereed proceedings of the 9th International Conference on Computer Vision Systems, ICVS 2013, held in St. Petersburg, Russia, July 16-18, 2013. Proceedings. The 16 revised papers presented with 20 poster papers were carefully reviewed and selected from 94 submissions. The papers are organized in topical sections on

image and video capture; visual attention and object detection; self-localization and pose estimation; motion and tracking; 3D reconstruction; features, learning and validation.

This book constitutes the refereed proceedings of the 14th Conference on Advances in Autonomous Robotics, TAROS 2013, held in Oxford, UK, in August 2013. The 36 revised full papers presented together with 25 extended abstracts were carefully reviewed and selected from 89 submissions. The papers cover various topics such as artificial intelligence, bio-inspired and aerial robotics, computer vision, control, humanoid and robotic arm, swarm robotics, verification and ethics.

This book constitutes the refereed conference proceedings of the 9th International Conference on Intelligent Computing, ICIC 2013, held in Nanning, China, in July 2013. The 74 revised full papers presented were carefully reviewed and selected from numerous submissions and are organized in topical sections on neural networks, nature inspired computing and optimization, cognitive science and computational neuroscience, knowledge discovery and data mining, evolutionary learning and genetic algorithms machine learning theory and methods, natural language processing and computational linguistics, fuzzy theory and models, soft computing, unsupervised and reinforced learning, intelligent computing in finance, intelligent computing in petri nets, intelligent data fusion and information security, virtual reality and computer interaction, intelligent computing in pattern recognition, intelligent computing in image processing, intelligent computing in robotics, complex systems theory and methods.

This book constitutes thoroughly refereed post-conference proceedings of the workshops of the 18th International Conference on Parallel Computing, Euro-Par 2012, held in Rhodes Islands, Greece, in August 2012. The papers of these 10 workshops BDMC, CGWS, HeteroPar, HiBB, OMHI, Paraphrase, PROPER, UCHPC, VHPC focus on promotion and advancement of all aspects of parallel and distributed computing.

This book constitutes the refereed proceedings of the First International Conference on Human Aspects of Information Security, Privacy and Trust, HAS 2013, held as part of the 15th International Conference on Human-Computer Interaction, HCII 2013, held in Las Vegas, USA in July 2013, jointly with 12 other thematically similar conferences. The total of 1666 papers and 303 posters presented at the HCII 2013 conferences was carefully reviewed and selected from 5210 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 39 contributions was carefully reviewed and selected for inclusion in the HAS proceedings. The papers are organized in the following topical sections: novel authentication systems; human factors in security; security and privacy policies; and user centric security and privacy.

Video is the main driver of bandwidth use, accounting for over 80 per cent of consumer Internet traffic. Video compression is a critical component of many of the available multimedia applications, it is necessary for storage or transmission of digital video over today’s band-limited networks. The majority of this video is coded using international standards developed in collaboration with ITU-T Study Group and MPEG. The MPEG family of video coding standards begun on the early 1990s with MPEG-1, developed for video and audio storage on CD-ROMs, with support for progressive video. MPEG-2 was standardized in 1995 for applications of video on DVD, standard and high definition television, with support for interlaced and progressive video. MPEG-4 part 2, also known as MPEG-2 video, was standardized in 1999 for

applications of low- bit rate multimedia on mobile platforms and the Internet, with the support of object-based or content based coding by modeling the scene as background and foreground. Since MPEG-1, the main video coding standards were based on the so-called macroblocks. However, research groups continued the work beyond the traditional video coding architectures and found that macroblocks could limit the performance of the compression when using high-resolution video. Therefore, in 2013 the high efficiency video coding (HEVC) also known and H.265, was released, with a structure similar to H.264/AVC but using coding units with more flexible partitions than the traditional macroblocks. HEVC has greater flexibility in prediction modes and transform block sizes, also it has a more sophisticated interpolation and de blocking filters. In 2006 the VC-1 was released. VC-1 is a video codec implemented by Microsoft and the Microsoft Windows Media Video (VMW) 9 and standardized by the Society of Motion Picture and Television Engineers (SMPTE). In 2017 the Joint Video Experts Team (JVET) released a call for proposals for a new video coding standard initially called Beyond the HEVC, Future Video Coding (FVC) or known as Versatile Video Coding (VVC). VVC is being built on top of HEVC for application on Standard Dynamic Range (SDR), High Dynamic Range (HDR) and 360° Video. The VVC is planned to be finalized by 2020. This book presents the new VVC, and updates on the HEVC. The book discusses the advances in lossless coding and covers the topic of screen content coding. Technical topics discussed include: Beyond the High Efficiency Video CodingHigh Efficiency Video Coding encoderScreen contentLossless and visually lossless coding algorithmsFast coding algorithmsVisual quality assessmentOther screen content coding algorithmsOverview of JPEG Series

This book constitutes the revised post-conference proceedings of the 15th International Workshop on Digital Forensics and Watermarking, IWDW 2016, held in Beijing, China, in September 2016. The 45 papers presented in this volume were carefully reviewed and selected from 70 submissions. The contributions are organized in topical sections on digital forensics, visual cryptography, reversible data hiding, and steganography and steganalysis.

This three-volume set LNCS 10361, LNCS 10362, and LNAI 10363 constitutes the refereed proceedings of the 13th International Conference on Intelligent Computing, ICIC 2017, held in Liverpool, UK, in August 2017. The 212 full papers and 20 short papers of the three proceedings volumes were carefully reviewed and selected from 612 submissions. This first volume of the set comprises 71 papers. The papers are organized in topical sections such as Evolutionary Computation and Learning; Neural Networks; Nature Inspired Computing and Optimization; Signal Processing; Pattern Recognition; Biometrics Recognition; Image Processing; Information Security; Virtual Reality and Human-Computer Interaction; Business Intelligence and Multimedia Technology; Genetic Algorithms; Biomedical Informatics Theory and Methods; Particle Swarm Optimization and Niche Technology; Swarm Intelligence and Optimization; Independent Component Analysis; Compressed Sensing and Sparse Coding; Natural Computing; Intelligent Computing in Computer Vision; Computational Intelligence and Security for Image Applications in Social Network; Neural Networks: Theory and Application.

This book constitutes the refereed proceedings of the 6th Iberian Conference on Pattern Recognition and Image Analysis, IbPRIA 2013, held in Funchal, Madeira, Portugal, in June 2013. The 105 papers (37 oral and 68 poster ones) presented were carefully reviewed and selected from 181 submissions. The papers are organized in topical sections on computer vision, pattern recognition, image and signal, applications.

This book is a part of ICL new book series “ICL Contribution to Landslide Disaster Risk Reduction” founded in 2019. Peer-reviewed papers submitted to the Fifth World Landslide Forum were published in six volumes of this book series. This book contains the followings: Part I with topics is mainly about landslides and earthquakes; landslide dams and outburst floods; catastrophic large-scale landslides in mountainous regions. Part II with topics is mainly about impact of climate change; loess landslides; mapping, monitoring and modeling of landslides;

stabilization and mitigation; application of new technology in landslide studies. Prof. Vít Vilímek is the vice-president of the International Consortium on Landslides (ICL) and a member of the evaluation committee, Editor-in-Chief of the university journal AUC Geographica and Associate Editor-in-Chief of the international journal Geoenvironmental Disasters. He is a Professor of Physical Geography at Charles University, Prague, Czech Republic. Prof. Fawu Wang is the President of the International Consortium on Geo-disaster Reduction (ICGdR) and the Editor-in-Chief of the international journal Geoenvironmental Disasters. He is a Professor at the School of Civil Engineering, Tongji University, China. Dr. Alexander Strom is a chief expert at the Geodynamics Research Center LLC, Moscow, Russia. He is also an Adjunct Professor at Chang'an University, Xi'an, China, Visiting Professor at SKLGP, Chengdu, China, and an alternative representative of the JSC "Hydroproject Institute" in ICL. Prof. Kyoji Sassa is the Founding President and the Secretary-General of the International Consortium on Landslides (ICL). He has been the Editor-in-Chief of International Journal Landslides since its foundation in 2004. Prof. Peter Bobrowsky is the President of the International Consortium on Landslides. He is a Senior Scientist of Geological Survey of Canada, Ottawa, Canada. Prof. Kaoru Takara is the Executive Director of the International Consortium on Landslides. He is a Professor and Dean of Graduate School of Advanced Integrated Studies (GSAIS) in Human Survivability (Shishu-Kan), Kyoto University.