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4AC - MELINA WARREN

"Prerequisites for using this text are knowledge of calculus and some previous exposure to matrices and linear algebra, including, for example, a basic knowledge of determinants, singularity of matrices, eigenvalues and eigenvectors, and positive definite matrices. There are exercises at the end of each chapter."--BOOK JACKET.

Explores the tumultuous decade in American history, covering such topics as civil rights, Vietnam, the assassination of Martin Luther King Jr. and Bobby Kennedy, the war on poverty, marijuana usage, and the policies of Presidents Kennedy, Johnson, and Nixon.

This book constitutes the refereed proceedings of the 15th Annual International Conference on Combinatorial Optimization and Applications, COCOA 2021, which took place in Tianjin, China, during December 17-19, 2021. The 55 papers presented in this volume were carefully reviewed and selected from 122 submissions. They deal with combinatorial optimization and its applications in

general, focusing on algorithms design, theoretical and experimental analysis, and applied research of general algorithmic interest.

Handbook of Robust Low-Rank and Sparse Matrix Decomposition: Applications in Image and Video Processing shows you how robust subspace learning and tracking by decomposition into low-rank and sparse matrices provide a suitable framework for computer vision applications. Incorporating both existing and new ideas, the book conveniently gives you one-stop access to a number of different decompositions, algorithms, implementations, and benchmarking techniques. Divided into five parts, the book begins with an overall introduction to robust principal component analysis (PCA) via decomposition into low-rank and sparse matrices. The second part addresses robust matrix factorization/completion problems while the third part focuses on robust online subspace estimation, learning, and tracking. Covering applications in image and video processing, the fourth part discusses image analysis, image denoising, motion saliency detection, video coding, key frame extraction, and hyperspectral video process-

ing. The final part presents resources and applications in background/foreground separation for video surveillance. With contributions from leading teams around the world, this handbook provides a complete overview of the concepts, theories, algorithms, and applications related to robust low-rank and sparse matrix decompositions. It is designed for researchers, developers, and graduate students in computer vision, image and video processing, real-time architecture, machine learning, and data mining.

Artificial intelligence and intelligent digital systems have become indispensable to many areas of modern life. This book presents the proceedings of the 1st International Conference on Novelties in Intelligent Digital Systems (NIDS2021), held in Athens, Greece, from 30 September to 1 October 2021. The conference took place as a virtual event due to COVID-19 restrictions. The NIDS conference lays special emphasis on the novelties of intelligent systems and on the interdisciplinary research which enables, supports, and enhances Artificial Intelligence (AI) in software development. It promotes high-quality research, creating a forum for the exploration of challenges and new advances in AI, and addresses experts, researchers and scholars in the fields of artificial and computational intelligence in systems and in computer sciences in general, enabling them to learn more about pertinent, strongly related and mutually complementary fields. The conference promotes an exchange of ideas, reinforcing and expanding the network of researchers, academics, and market representatives. The 30 accepted papers included here have each been reviewed rigorously by two or three reviewers through a double-blind process which reflects the commitment of the IIS academic community to

make NIDS a top-flight, selective and high-quality conference. They are grouped in 6 sections, and cover the topics of Learning; Extended Reality; Data Mining and Machine Learning; Health and Environment; Brain Assessment and Reasoning; and Computer Vision. Describing some very significant research and reflecting many interesting new ideas, the book will be of interest to all those working in the field.

Artificial intelligence has become an indispensable part of our lives in recent years, affecting all aspects from business and leisure to transport and health care. This book presents the proceedings of the 23rd edition of the International Conference of the Catalan Association for Artificial Intelligence (CCIA), an annual event that serves as a meeting point for researchers in Artificial Intelligence in the area of the Catalan speaking territories and from around the world. The 2021 edition was held online as a virtual conference from 20 - 22 October 2021 due to the COVID-19 pandemic. The book contains 42 long papers and 9 short papers, carefully reviewed and selected. The papers cover all aspects of artificial intelligence and are divided under six section headings: combinatorial problem solving and logics for artificial intelligence; sentiment analysis and text analysis; data science and decision support systems; machine learning; computer vision; and explainability and argumentation. Abstracts of the 2 invited talks delivered at the conference by Prof. Patty Kostkova and Prof. João Marques-Silva are also included. Offering a state of the art overview of the subject from a regional perspective, the book will be of interest to all those working in the field of artificial intelligence.

This book gives a start-to-finish overview of the whole Fish4Knowledge project, in 18 short chapters, each describing one aspect of

the project. The Fish4Knowledge project explored the possibilities of big video data, in this case from undersea video. Recording and analyzing 90 thousand hours of video from ten camera locations, the project gives a 3 year view of fish abundance in several tropical coral reefs off the coast of Taiwan. The research system built a remote recording network, over 100 Tb of storage, super-computer processing, video target detection and tracking, fish species recognition and analysis, a large SQL database to record the results and an efficient retrieval mechanism. Novel user interface mechanisms were developed to provide easy access for marine ecologists, who wanted to explore the dataset. The book is a useful resource for system builders, as it gives an overview of the many new methods that were created to build the Fish4Knowledge system in a manner that also allows readers to see how all the components fit together.

Probability of Error Image Retrieval reviews a principle for the design of such systems, which formulates the retrieval problem as one of decision-theory. Under this principle, a retrieval system searches the images that are likely to satisfy the query with minimum probability of error (MPE). It is shown how the MPE principle can be used to design optimal solutions for practical retrieval problems.

This two-volume set, LNAI 11012 and 11013, constitutes the thoroughly refereed proceedings of the 15th Pacific Rim Conference on Artificial Intelligence, PRICAI 2018, held in Nanjing, China, in August 2018. The 82 full papers and 58 short papers presented in these volumes were carefully reviewed and selected from 382 submissions. PRICAI covers a wide range of topics such as AI theo-

ries, technologies and their applications in the areas of social and economic importance for countries in the Pacific Rim.

We are pleased to present herein the proceedings of the 13th ACM Symposium on Information, Computer and Communications Security (ASIACCS 2018) held in Incheon, Korea, June 4-8, 2018. ASIACCS 2018 is organized by AsiaCCS 2018 organizing committee, supported by ACM SigSAC, Korea Institute of Information Security & Cryptography (KIISC). We received 310 submissions. This year's Program Committee comprising 103 security researchers from 24 countries, helped by 73 external reviewers, evaluated these submissions through thoughtful discussion and rigorous review procedure. The review process resulted in 52 full papers being accepted to the program, representing an acceptance rate of about 17%. In addition, 10 short papers and 15 posters are also included in the program. Once again we have a very strong technical program along with 5 specialized pre-conference workshops: CPSS'18, APKC'18, RESEC'18, BBC'18, and SCC'18. We are also fortunate to have distinguished invited speakers, Dr. Cliff Wang, Dr. Jaeyeon Jung, and Prof. Kevin Fu, who will provide various insights into Cyber Deception: an emergent research area, Securing a large scale IoT ecosystem, and Analog Sensor Cybersecurity and Transduction Attacks, respectively. These valuable and insightful talks can and will guide us to a better understanding on both fundamental and emerging topic areas in the field of information, computer and communications security.

The Handbook of Formal Argumentation is a community effort aimed at providing a comprehensive and up-to-date view of the state of the art and current trends in the lively research field of formal argumentation. The first volume of the Handbook is or-

ganised into five parts, containing nineteen chapters in all, each written by leading experts in the field. The first part provides a general and historical perspective on the field. The second part gives a comprehensive coverage of the argumentation formalisms available in the literature at various levels of abstraction. The third part is devoted to cover some of the many dialogical aspects of argumentation, while the fourth one deals with algorithmic, computational and implementation issues. Finally, the fifth part provides some deeper analyses on the previously introduced topics. The Handbook of Formal Argumentation is an open-ended initiative of which the present volume is the first outcome. Further volumes are planned to cover topics not included in the present one and the initiative is conceived to grow by the support and feeding it receives from the community members.

The three volume-set, LNCS 10991, LNCS 10992, and LNCS 10993, constitutes the refereed proceedings of the 38th Annual International Cryptology Conference, CRYPTO 2018, held in Santa Barbara, CA, USA, in August 2018. The 79 revised full papers presented were carefully reviewed and selected from 351 submissions. The papers are organized in the following topical sections: secure messaging; implementations and physical attacks prevention; authenticated and format-preserving encryption; cryptoanalysis; searchable encryption and differential privacy; secret sharing; encryption; symmetric cryptography; proofs of work and proofs of stake; proof tools; key exchange; symmetric cryptoanalysis; hashes and random oracles; trapdoor functions; round optimal MPC; foundations; lattices; lattice-based ZK; efficient MPC; quantum cryptography; MPC; garbling; information-theoretic MPC; oblivious transfer; non-malleable codes; zero knowledge;

and obfuscation.

Information modeling and knowledge bases are important technologies for academic and industrial research that goes beyond the traditional borders of information systems and computer science. The amount and complexity of information to be dealt with grows continually, as do the levels of abstraction and the size of databases. This book presents the proceedings of the 30th International Conference on Information Modelling and Knowledge Bases (EJC2020), due to be held in Hamburg, Germany on 8 and 9 June 2020, but instead held as a virtual conference on the same dates due to the Corona-virus pandemic restrictions. The conference provides a research forum for the exchange of scientific results and experiences, and brings together experts from different areas of computer science and other disciplines with a common interest in information modeling and knowledge bases. The subject touches on many disciplines, with philosophy and logic, cognitive science, knowledge management, linguistics and management science, as well as the emerging fields of data science and machine learning, all being relevant areas. The 23 reviewed, selected, and upgraded contributions included here are the result of presentations, comments, and discussions from the conference, and reflect the themes of the conference sessions: learning and linguistics; systems and processes; data and knowledge representation; models and interfaces; formalizations and reasoning; models and modeling; machine learning; models and programming; environment and predictions; modeling emotion; and social networks. The book provides an overview of current research and applications, and will be of interest to all those working in the field.

This book is the first ever to deal exclusively with this class of operations. It offers an introduction to Fuzzy Implications, an analytical study of them, and an algebraic exploration into the structures that exist on the set of all FIs.

This book constitutes the thoroughly refereed post-proceedings of the PASCAL (pattern analysis, statistical modelling and computational learning) Statistical and Optimization Perspectives Workshop on Subspace, Latent Structure and Feature Selection techniques, SLSFS 2005. The 9 revised full papers presented together with 5 invited papers reflect the key approaches that have been developed for subspace identification and feature selection using dimension reduction techniques, subspace methods, random projection methods, among others.

The pervasive creation and consumption of content, especially visual content, is ingrained into our modern world. We're constantly consuming visual media content, in printed form and in digital form, in work and in leisure pursuits. Like our cave-man forefathers, we use pictures to record things which are of importance to us as memory cues for the future, but nowadays we also use pictures and images to document processes; we use them in engineering, in art, in science, in medicine, in entertainment and we also use images in advertising. Moreover, when images are in digital format, either scanned from an analogue format or more often than not born digital, we can use the power of our computing and networking to exploit images to great effect. Most of the technical problems associated with creating, compressing, storing, transmitting, rendering and protecting image data are already solved. We use - cepted standards and have tremendous infrastructure and the only outstanding ch- lenges, apart from managing the

scale issues associated with growth, are to do with locating images. That involves analysing them to determine their content, clas- fying them into related groupings, and searching for images. To overcome these challenges we currently rely on image meta- data, the description of the images, - ther captured automatically at creation time or manually added afterwards.

This book constitutes the refereed proceedings of the 4th Chinese Conference, IVS 2016, held in Beijing, China, in October 2016. The 19 revised full papers presented were carefully reviewed and selected from 45 submissions. The papers are organized in topical sections on low-level preprocessing, surveillance systems; tracking, robotics; identification, detection, recognition; behavior, activities, crowd analysis.

This book discusses the recent advances in natural computation, fuzzy systems and knowledge discovery. Presenting selected, peer-reviewed papers from the 15th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2019), held in Kunming, China, from 20 to 22 July 2019, it is a useful resource for researchers, including professors and graduate students, as well as R&D staff in industry.

This book constitutes the refereed conference proceedings of the 2nd International Workshop on Cryprocurrencies and Blockchain Technology, CBT 2018, and the 13th International Workshop on Data Privacy Management, DPM 2018, on conjunction with the 23rd European Symposium on Research in Computer Security, ES-ORICS 2018, held in Barcelona, Spain, in September 2018. From the CBT Workshop 7 full and 8 short papers out of 39 submissions are included. The selected papers cover aspects of identity man-

agement, smart contracts, soft- and hardforks, proof-of-works and proof of stake as well as on network layer aspects and the application of blockchain technology for secure connect event ticketing. The DPM Workshop received 36 submissions from which 11 full and 5 short papers were selected for presentation. The papers focus on challenging problems such as translation of high-level business goals into system level privacy policies, administration of sensitive identifiers, data integration and privacy engineering.

This practical guide outlines the latest advances in understanding and treating psychotic symptoms and disorders, articulating step-by-step the clinical skills and knowledge required to effectively treat this patient population. A Clinical Introduction to Psychosis takes an evidence-based approach that encourages a wider perspective on clinical practice, with chapters covering stigma and bias, cultural factors, the importance of social functioning, physical health, sleep, and more. A broad array of treatment modalities are discussed, including cognitive behavioral therapy, cognitive remediation, psychosocial interventions, trauma-informed therapies, and recovery-oriented practice. The book also provides a concise overview of the latest advances regarding cognitive profiles in people with psychotic disorders, the developmental progression of cognitive abilities, and the clinical relevance of cognitive dysfunction. The book additionally familiarizes readers with issues and controversies surrounding diagnostic classification, transdiagnostic expression, and dimensional assessment of symptoms in psychosis. Provides treatment and assessment methods for psychotic symptoms and disorders Looks at how psychosis develops and the impact of stigma on clinicians and clients Studies

the links between trauma, PTSD, and psychosis, as well as sleep and psychosis Covers digital technologies for treating and assessing psychosis Outlines strategies for treating visual and auditory hallucinations Examines how to incorporate consumer and clinician perspectives in clinical practice

Presents an introduction to the key project stages from conception through to completion of construction and then beyond to handing over the resulting structures and services for use. This book covers: project promotion, strategy and design; latest forms of contracts for construction; and partnering, alliancing and programme management.

Incorporating the information related to mechanisms and treatment of cardiac arrhythmia, this book discusses genetics of arrhythmias, cell signalling molecules as potential therapeutic targets and trafficking to the membrane. These approaches and implementations of anti-arrhythmic therapy derive from many decades of research.

State of the Art in Neural Networks and Their Applications presents the latest advances in artificial neural networks and their applications across a wide range of clinical diagnoses. Advances in the role of machine learning, artificial intelligence, deep learning, cognitive image processing and suitable data analytics useful for clinical diagnosis and research applications are covered, including relevant case studies. The application of Neural Network, Artificial Intelligence, and Machine Learning methods in biomedical image analysis have resulted in the development of computer-aided diagnostic (CAD) systems that aim towards the automatic early detection of several severe diseases. State of the Art in

Neural Networks and Their Applications is presented in two volumes. Volume 1 covers the state-of-the-art deep learning approaches for the detection of renal, retinal, breast, skin, and dental abnormalities and more. Includes applications of neural networks, AI, machine learning, and deep learning techniques to a variety of imaging technologies Provides in-depth technical coverage of computer-aided diagnosis (CAD), with coverage of computer-aided classification, Unified Deep Learning Frameworks, mammography, fundus imaging, optical coherence tomography, cryo-electron tomography, 3D MRI, CT, and more. Covers deep learning for several medical conditions including renal, retinal, breast, skin, and dental abnormalities, Medical Image Analysis, as well as detection, segmentation, and classification via AI.

This book constitutes the refereed proceedings of the Third International Conference on Image and Video Retrieval, CIVR 2004, held in Dublin, Ireland in July 2004. The 31 revised full papers and 44 poster papers presented were carefully reviewed and selected from 125 submissions. The papers are organized in topical sections on image annotation and user searching, image and video retrieval algorithms, person and event identification for retrieval, content-based image and video retrieval, and user perspectives.

This book constitutes the revised selected papers of the 12th International Symposium on Foundations and Practice of Security, FPS 2019, held in Toulouse, France, in November 2019. The 19 full papers and 9 short papers presented in this book were carefully reviewed and selected from 50 submissions. They cover a range of topics such as machine learning approaches; attack prevention and trustworthiness; and access control models and cryp-

tography.

This completely updated version discusses such topics as raw water quality, treatment options, treatment chemicals, and drinking water regulations. It includes detailed illustrations, photographs, supplemental reading lists, a glossary, and an index.

Most data from satellites are in image form, thus most books in the remote sensing field deal exclusively with image processing. However, signal processing can contribute significantly in extracting information from the remotely sensed waveforms or time series data. Pioneering the combination of the two processes, Signal and Image Processing for Remote Sensing provides a balance between the role of signal processing and image processing in remote sensing. Featuring contributions from worldwide experts, this book emphasizes mathematical approaches. Divided into two parts, Part I examines signal processing for remote sensing and Part II explores image processing. Not limited to the problems with data from satellite sensors, the book considers other sensors which acquire data remotely, including signals and images from infrasound, seismic, microwave, and satellite sensors. It covers a broader scope of issues in remote sensing information processing than other books in this area. With rapid technological advances, the mathematical techniques provided will far outlast the sensor, software and hardware technologies. Focusing on methodologies of signal processing and image processing in remote sensing, this book discusses unique techniques for dealing with remote sensing problems.

The subject of social robotics has enormous projected economic significance. However, social robots not only present us with novel opportunities but also with novel risks that go far beyond safe-

ty issues. It is a potentially highly disruptive technology which could negatively affect the most valuable parts of the fabric of human social interactions in irreparable ways. Since engineering educations do not yet offer the necessary competences to analyze, holistically assess, and constructively mitigate these risks, new alliances must be established between engineering and SSH disciplines, with special emphasis on the humanities (i.e. disciplines specializing in the analysis of socio-cultural interactions and human experience). The Robophilosophy Conference Series was established in 2014 with the purpose of creating a new forum and catalyzing the research discussion in this important area of applied humanities research, with focus on robophilosophy. Robophilosophy conferences have been the world's largest venues for humanities research in and on social robotics. The book at hand presents the proceedings of Robophilosophy Conference 2020: Culturally Sustainable Social Robotics, the fourth event in the international, biennial Robophilosophy Conference Series, which brought together close to 400 participants from 29 countries. The speakers of the conference, whose contributions are collected in this volume, were invited to offer concrete proposals for how the Humanities can help to shape a future where social robotics is guided by the goals of enhancing socio-cultural values rather than by utility alone. The book is divided into 3 parts; Abstracts of Plenaries, which contains 6 plenary sessions; Session Papers, with 44 papers under 8 thematic categories; and Workshops, containing 25 items on 5 selected topics. Providing concrete proposals from philosophers and other SSH researchers for new models and methods, this book will be of interest to all those involved in developing artificial 'social' agents in a culturally sustainable way

that is also – a fortiori – ethically responsible.

Papers direct the focus of interest to the development and use of conceptual models in information systems of various kinds and aim at improving awareness about general or specific problems and solutions in conceptual modelling.

This textbook provides an accessible general introduction to the essential topics in computer vision. Classroom-tested programming exercises and review questions are also supplied at the end of each chapter. Features: provides an introduction to the basic notation and mathematical concepts for describing an image and the key concepts for mapping an image into an image; explains the topologic and geometric basics for analysing image regions and distributions of image values and discusses identifying patterns in an image; introduces optic flow for representing dense motion and various topics in sparse motion analysis; describes special approaches for image binarization and segmentation of still images or video frames; examines the basic components of a computer vision system; reviews different techniques for vision-based 3D shape reconstruction; includes a discussion of stereo matchers and the phase-congruency model for image features; presents an introduction into classification and learning.

Smart cities operate under more resource-efficient management and economy than ordinary cities. As such, advanced business models have emerged around smart cities, which led to the creation of smart enterprises and organizations that depend on advanced technologies. This book includes 21 selected and peer-reviewed articles contributed in the wide spectrum of artificial intelligence applications to smart cities. Chapters refer to the follow-

ing areas of interest: vehicular traffic prediction, social big data analysis, smart city management, driving and routing, localization, safety, health, and life quality.

Background modeling and foreground detection are important steps in video processing used to detect robustly moving objects in challenging environments. This requires effective methods for dealing with dynamic backgrounds and illumination changes as well as algorithms that must meet real-time and low memory requirements. Incorporating both established and new ideas, *Background Modeling and Foreground Detection for Video Surveillance* provides a complete overview of the concepts, algorithms, and applications related to background modeling and foreground detection. Leaders in the field address a wide range of challenges, including camera jitter and background subtraction. The book presents the top methods and algorithms for detecting moving objects in video surveillance. It covers statistical models, clustering models, neural networks, and fuzzy models. It also addresses sensors, hardware, and implementation issues and discusses the resources and datasets required for evaluating and comparing background subtraction algorithms. The datasets and codes used in the text, along with links to software demonstrations, are available on the book's website. A one-stop resource on up-to-date models, algorithms, implementations, and benchmarking techniques, this book helps researchers and industry developers understand how to apply background models and foreground detection methods to video surveillance and related areas, such as optical motion capture, multimedia applications, teleconferencing, video editing, and human-computer interfaces. It can also be used in graduate courses on computer vision, image processing,

real-time architecture, machine learning, or data mining.

Background subtraction is a widely used concept for detection of moving objects in videos. In the last two decades there has been a lot of development in designing algorithms for background subtraction, as well as wide use of these algorithms in various important applications, such as visual surveillance, sports video analysis, motion capture, etc. Various statistical approaches have been proposed to model scene backgrounds. The concept of background subtraction also has been extended to detect objects from videos captured from moving cameras. This book reviews the concept and practice of background subtraction. We discuss several traditional statistical background subtraction models, including the widely used parametric Gaussian mixture models and non-parametric models. We also discuss the issue of shadow suppression, which is essential for human motion analysis applications. This book discusses approaches and tradeoffs for background maintenance. This book also reviews many of the recent developments in background subtraction paradigm. Recent advances in developing algorithms for background subtraction from moving cameras are described, including motion-compensation-based approaches and motion-segmentation-based approaches.

An authoritative treatment of urban computing, offering an overview of the field, fundamental techniques, advanced models, and novel applications. Urban computing brings powerful computational techniques to bear on such urban challenges as pollution, energy consumption, and traffic congestion. Using today's large-scale computing infrastructure and data gathered from sensing

technologies, urban computing combines computer science with urban planning, transportation, environmental science, sociology, and other areas of urban studies, tackling specific problems with concrete methodologies in a data-centric computing framework. This authoritative treatment of urban computing offers an overview of the field, fundamental techniques, advanced models, and novel applications. Each chapter acts as a tutorial that introduces readers to an important aspect of urban computing, with references to relevant research. The book outlines key concepts, sources of data, and typical applications; describes four paradigms of urban sensing in sensor-centric and human-centric categories; introduces data management for spatial and spatio-temporal data, from basic indexing and retrieval algorithms to cloud computing platforms; and covers beginning and advanced topics in mining knowledge from urban big data, beginning with fundamental data mining algorithms and progressing to advanced machine learning techniques. Urban Computing provides students, researchers, and application developers with an essential handbook to an evolving interdisciplinary field.

The integration of AI with software is an essential enabler for science and the new economy, creating new markets and opportunities for a more reliable, flexible and robust society. Current software methodologies, tools and techniques often fall short of expectations, however, and much software remains insufficiently robust and reliable for a constantly changing and evolving market. This book presents 54 papers delivered at the 20th edition of the International Conference on New Trends in Intelligent Software Methodology Tools, and Techniques (SoMeT_21), held in Cancun, Mexico, from 21–23 September 2021. The aim of the conference

was to capture the essence of a new state-of-the-art in software science and its supporting technology and to identify the challenges that such a technology will need to master, and this book explores the new trends and theories illuminating the direction of development in this field as it heads towards a transformation in the role of software and science integration in tomorrow's global information society. The 54 revised papers were selected for publication by means of a rigorous review process involving 3 or 4 reviewers for each paper, followed by selection by the SoMeT_21 international reviewing committee. The book is divided into 9 chapters, classified by paper topic and relevance to the chapter theme. Covering topics ranging from research practices, techniques and methodologies to proposing and reporting on the solutions required by global business, the book offers an opportunity for the software science community to consider where they are today and where they are headed in the future.

The field of legal knowledge and information systems has traditionally been concerned with the subjects of legal knowledge representation and engineering, computational models of legal reasoning, and the analysis of legal data, but recent years have also seen an increasing interest in the application of machine learning methods to ease and empower the everyday activities of legal experts. This book presents the proceedings of the 33rd International Conference on Legal Knowledge and Information Systems (JURIX 2020), organised this year as a virtual event on 9–11 December 2020 due to restrictions resulting from the Covid-19 pandemic. For more than three decades, the annual JURIX international conference, which now also includes demo papers, has provided a platform for academics and practitioners to exchange knowl-

edge about theoretical research and applications in concrete legal use cases. A total of 85 submissions by 255 authors from 28 countries were received for the conference, and after a rigorous review process, 20 were selected for publication as full papers, 14 as short papers, and 5 as demo papers. This selection process resulted in a total acceptance rate of 40% (full and short papers) and a competitive 23.5% acceptance rate for full papers. Topics

span from computational models of legal argumentation, case-based reasoning, legal ontologies, smart contracts, privacy management and evidential reasoning to information extraction from different types of text in legal documents, and ethical dilemmas. Providing a state-of-the-art overview of developments in the field, this book will be of interest to all those working with legal knowledge and information systems.