

Digital Image Processing By Poornima Thangam

With the ever-increasing volume of data, proper management of data is a challenging proposition to scientists and researchers, and given the vast storage space required, multimedia data is no exception in this regard. Scientists and researchers are investing great effort to discover new space-efficient methods for storage and archiving of this data. Intelligent Innovations in Multimedia Data Engineering and Management provides emerging research exploring the theoretical and practical aspects of storage systems and computing methods for large forms of data. Featuring coverage on a broad range of topics such as binary image, fuzzy logic, and metaheuristic algorithms, this book is ideally designed for computer engineers, IT professionals, technology developers, academicians, and researchers seeking current research on advancing strategies and computing techniques for various types of data.

Recent advancements and innovations in medical image and data processing have led to a need for robust and secure mechanisms to transfer images and signals over the internet and maintain copyright protection. The Handbook of Research on Information Security in Biomedical Signal Processing provides emerging research on security in biomedical data as well as techniques for accurate reading and further processing.

While highlighting topics such as image processing, secure access, and watermarking, this publication explores advanced models and algorithms in information security in the modern healthcare system. This publication is a vital resource for academicians, medical professionals, technology developers, researchers, students, and practitioners seeking current research on intelligent techniques in medical data security.

Mastering practical's: community medicine is designed to help students prepare for practical examinations.

This handbook is organized under three major parts. The first part of this handbook deals with multimedia security for emerging applications. The chapters include basic concepts of multimedia tools and applications, biological and behavioral biometrics, effective multimedia encryption and secure watermarking techniques for emerging applications, an adaptive face identification approach for android mobile devices, and multimedia using chaotic and perceptual hashing function. The second part of this handbook focuses on multimedia processing for various potential applications. The chapter includes a detail survey of image processing based automated glaucoma detection techniques and role of de-noising, recent study of dictionary learning based image reconstruction techniques for analyzing the big medical data, brief introduction of quantum image processing and its applications, a segmentation-less efficient Alzheimer detection approach, object recognition, image enhancements and de-noising techniques for emerging applications, improved performance of image compression approach, and automated detection of eye related diseases using digital image processing. The third part of this handbook introduces multimedia applications. The chapter includes the extensive survey on the role of multimedia in medicine and multimedia forensics classification, a finger based authentication system for e-health security, analysis of recently developed deep learning techniques for emotion and activity recognition. Further, the book introduces a case study on change of ECG according to time for user identification, role of multimedia in big data, cloud computing, the Internet of things (IoT) and blockchain environment in detail for real life applications.

This handbook targets researchers, policy makers, programmers and industry professionals in creating new knowledge for developing efficient techniques/framework for multimedia applications. Advanced level students studying computer science, specifically security and multimedia will find this book useful as a reference.

Conferences Proceedings of 20th European Conference on Cyber Warfare and Security

Intervention Narratives examines the contradictory cultural representations of the US intervention in Afghanistan that help to justify an imperial foreign policy. These narratives involve projecting Afghans as brave anti-communist warriors who suffered the consequences of American disengagement with the region following the end of the Cold War, as victimized women who can be empowered through enterprise, as innocent dogs who need to be saved by US soldiers, and as terrorists who deserve punishment for 9/11. Given that much of public political life now involves affect rather than knowledge, feelings rather than facts, familiar recurring tropes of heroism, terrorism, entrepreneurship, and canine love make the war easier to comprehend and elicit sympathy for US military forces. An indictment of US policy, Bose demonstrates that contemporary imperialism operates on an ideologically diverse cultural terrain to enlist support for the war across the political spectrum.

When was the last time you read an entertaining novel and noticed an enhancement in your life? Or a didactic book and found it to be refreshing? Wait no more! Dig into this book that is both engaging and instructive. In a book market that is broadly bifurcated as either amusing or educational but not both, breaking that norm comes a Swiss Army knife of books by combining an engrossing journey of transformation of a happy-go-lucky girl with illuminating and inspiring short stories while being enlightening and rewarding to both youngsters and adults. While teenagers/students find the book worthwhile to utilize a revolutionary technique of context-based learning to better encode and enhance the recall of meanings of 1200 high frequency words encountered in standardized university entrance tests such as SAT or GRE, everyone, regardless of their age, will discover a thought-provoking inspiration and a valuable learning experience in developing one's mindset, character and vocabulary. Crafted to improve the readers life and with the understanding that several fold worse than being idle is reading a bad book, this book is priceless for all ages in instilling inspiration and propelling themselves to finding their life's purpose.

The undisputed gold standard text in the field, Ryan's Retina is your award-winning choice for the most current, authoritative information on new technologies, surgical approaches, scientific advances and diagnostic and therapeutic options for retinal diseases and disorders. Packed with timely updates throughout, new illustrations, and a dedicated team of editors who extend Dr. Ryan's legacy in retina, this outstanding 6th Edition is a must-have reference for retinal specialists, ophthalmologists, and fellows in training. Offers the most comprehensive content available on retina, balancing the latest scientific research and clinical correlations, covering everything you need to know on retinal diagnosis, treatment, development, structure, function, and pathophysiology. Provides a truly global perspective from five highly esteemed section editors and more than 350 other world authorities from across Europe, Asia, Australasia, and the Americas. Includes new chapters on widefield imaging, intraoperative OCT imaging, medical management of diabetes mellitus and age-related macular degeneration, and senile retinoschisis. Includes more than 1,150 brand-new illustrations, scans, and photographs throughout. Covers the explosion of new imaging options across optical coherence

tomography (OCT), fundus imaging, and autofluorescence imaging, including a greatly expanded OCT imaging chapter that features crucial information on OCT-Angiography (OCT-A). Presents new pharmacotherapy data and the latest approaches in anti-VEGF therapy for age-related macular degeneration, diabetic retinopathy, and venous occlusive disease. Contains thorough content updates in every area of retina, including advanced imaging technologies, gene therapy, inflammation and immune responses, white dot syndromes, epigenetic mechanisms, transplantation frontiers to improve retinal function, macular hole, myopic eye disease, ocular trauma, drug delivery to the posterior segment, advances in macular surgery, vitrectomy and complex retinal detachment, tumors, and retinal genetics and biology.

The present volume contains invited talks of 11th biennial conference on “Emerging Mathematical Methods, Models and Algorithms for Science and Technology”. The main message of the book is that mathematics has a great potential to analyse and understand the challenging problems of nanotechnology, biotechnology, medical science, oil industry and financial technology. The book highlights all the features and main theme discussed in the conference. All contributing authors are eminent academicians, scientists, researchers and scholars in their respective fields, hailing from around the world.

The International Conference on Communications, Management, and Information Technology (ICCMIT'16) provides a discussion forum for scientists, engineers, educators and students about the latest discoveries and realizations in the foundations, theory, models and applications of systems inspired on nature, using computational intelligence methodologies, as well as in emerging areas related to the three tracks of the conference: Communication Engineering, Knowledge, and Information Technology. The best 25 papers to be included in the book will be carefully reviewed and selected from numerous submissions, then revised and expanded to provide deeper insight into trends shaping future ICT.

This book brings together the latest research in smart sensors technology and exposes the reader to myriad industrial applications that this technology has enabled. The book emphasizes several topics in the area of smart sensors in industrial real-world applications. The contributions in this book give a broader view on the usage of smart sensor devices covering a wide range of interdisciplinary areas like Intelligent Transport Systems, Healthcare, Agriculture, Drone communications and Security. By presenting an insight into Smart Sensors for Industrial IoT, this book directs the readers to explore the utility and advancement in smart sensors and their applications into numerous research fields. Lastly, the book aims to reach through a mass number of industry experts, researchers, scientists, engineers, and practitioners and help them guide and evolve to advance research practices.

Advancing technologies, especially computer technologies, have necessitated the creation of a comprehensive investigation and collection methodology for digital and online evidence. The goal of cyber forensics is to perform a structured investigation while maintaining a documented chain of evidence to find out exactly what happened on a computing device or on a network and who was responsible for it. *Critical Concepts, Standards, and Techniques in Cyber Forensics* is a critical research book that focuses on providing in-depth knowledge about online forensic practices and methods. Highlighting a range of topics such as data mining, digital evidence, and fraud investigation, this book is ideal for security analysts, IT specialists, software engineers, researchers, security professionals, criminal science professionals, policymakers, academicians, and students.

This book examines the fundamentals and technologies of Artificial Intelligence (AI) and describes their tools, challenges, and issues. It also explains relevant theory as well as industrial applications in various domains, such as healthcare, economics, education, product development, agriculture, human resource management, environmental management, and marketing. The book is a boon to students, software developers, teachers, members of boards

of studies, and researchers who need a reference resource on artificial intelligence and its applications and is primarily intended for use in courses offered by higher education institutions that strive to equip their graduates with Industry 4.0 skills. FEATURES: Gender disparity in the enterprises involved in the development of AI-based software development as well as solutions to eradicate such gender bias in the AI world A general framework for AI in environmental management, smart farming, e-waste management, and smart energy optimization The potential and application of AI in medical imaging as well as the challenges of AI in precision medicine AI's role in the diagnosis of various diseases, such as cancer and diabetes The role of machine learning models in product development and statistically monitoring product quality Machine learning to make robust and effective economic policy decisions Machine learning and data mining approaches to provide better video indexing mechanisms resulting in better searchable results ABOUT THE EDITORS: Prof. Dr. P. Kaliraj is Vice Chancellor at Bharathiar University, Coimbatore, India. Prof. Dr. T. Devi is Professor and Head of the Department of Computer Applications, Bharathiar University, Coimbatore, India.

This book features selected papers presented at the International Conference on Information Management and Machine Intelligence (ICIMMI 2019), held at the Poornima Institute of Engineering & Technology, Jaipur, Rajasthan, India, on December 14–15, 2019. It covers a range of topics, including data analytics; AI; machine and deep learning; information management, security, processing techniques and interpretation; applications of artificial intelligence in soft computing and pattern recognition; cloud-based applications for machine learning; application of IoT in power distribution systems; as well as wireless sensor networks and adaptive wireless communication.

The book presents selected research papers on current developments in the field of soft computing and signal processing from the International Conference on Soft Computing and Signal Processing (ICSCSP 2018). It includes papers on current topics such as soft sets, rough sets, fuzzy logic, neural networks, genetic algorithms and machine learning, discussing various aspects of these topics, like technological, product implementation, contemporary research as well as application issues.

Intelligent technologies have emerged as imperative tools in computer science and information security. However, advanced computing practices have preceded new methods of attacks on the storage and transmission of data. Developing approaches such as image processing and pattern recognition are susceptible to breaches in security. Modern protection methods for these innovative techniques require additional research. The Handbook of Research on Intelligent Data Processing and Information Security Systems provides emerging research exploring the theoretical and practical aspects of cyber protection and applications within computer science and telecommunications. Special attention is paid to data encryption, steganography, image processing, and recognition, and it targets professionals who want to improve their knowledge in order to increase strategic capabilities and organizational effectiveness. As such, this book is ideal for analysts, programmers, computer engineers, software engineers, mathematicians, data scientists, developers, IT specialists, academicians, researchers, and students within fields of information technology, information security, robotics, artificial intelligence, image processing, computer science, and telecommunications.

This book discusses reliability applications for power systems, renewable energy and smart grids and highlights trends in reliable communication, fault-tolerant systems, VLSI system design and embedded systems. Further, it includes chapters on software reliability and other computer engineering and software management-related

disciplines, and also examines areas such as big data analytics and ubiquitous computing. Outlining novel, innovative concepts in applied areas of reliability in electrical, electronics and computer engineering disciplines, it is a valuable resource for researchers and practitioners of reliability theory in circuit-based engineering domains. The ultimate interactive public speaking guide from tech speakers Poornima Vijayashanker and Karen Catlin that prepares and encourages techies to discover their expertise, confidently share it, and successfully level up in their careers. Techies around the world can now jump start and grow their speaking careers with the book, *Present! A Techie's Guide to Public Speaking*, written by tech leaders, Poornima Vijayashanker and Karen Catlin. The book serves as a resource for technology professionals who want or need to develop the skills to communicate their expertise effectively, whether in a meeting at work or delivering an engaging talk at a conference. Poornima, who is the founder of Femgineer and the founding engineer of Mint.com, collaborated with former Adobe vice president and founder of Karen Catlin Consulting, Karen Catlin, to compile and share their lessons, tips, and techniques learned from their own experiences as professional tech speakers. "Karen and I wanted to write this book so that our fellow techies would have a comprehensive resource to help them with their own public speaking endeavors. So many folks in the tech industry have amazing ideas and experience, but they often feel stuck on how to present them effectively. Also, our hope is that more women will be inspired by our stories and encouraged to get out there and share their own valuable expertise through public speaking in order to boost representation of women tech speakers," Poornima said. *Present!* covers public speaking from A to Z. Through stories, examples, and interactive exercises, Poornima and Karen dive into topics including, overcoming stage fright, exploring personal speaking style, creating the right talk for the right audience, polishing presence and delivery, and nailing any type of talk, whether it's a lightning or long-form talk or being part of a panel. Karen said, "Even though Poornima and I are professional speakers, we felt it was important to share our own feelings of nerves and uncertainty, and bumps we've had along the way - and sometimes continue to experience. It was important for us to communicate that no one is perfect and it really is okay when talks don't always go according to plan. Our hope is that by being open, we'll be able to give others the confidence and the techniques to handle situations when they arise, deliver an amazing presentation, and most importantly, have FUN!"

A broad spectrum of technical papers on the most diverse nondestructive testing techniques (NDT) and correlated fields are presented in this volume. The main applications and methods of these important quality control techniques are reviewed in depth. Apart from reporting on the improvements and developments of new techniques and the rapid automatization of nondestructive testings, many papers address the environment from the point of view of inspection surveys. The 265 contributions demonstrate that nondestructive testing techniques (NDT) play a vital role, not only in the quality assurance and control of manufactured products, but also as instruments of public, environmental and industrial safety. The quality of the articles in this book attest to the contribution this conference has made in the technical interchange of experience between NDT professionals, and indicate the present accelerated rate of development of ideas and knowledge in this field.

Image compression, the Navier-Stokes equations, and detection of gravitational waves

are three seemingly unrelated scientific problems that, remarkably, can be studied from one perspective. The notion that unifies the three problems is that of "oscillating patterns", which are present in many natural images, help to explain nonlinear equations, and are pivotal in studying chirps and frequency-modulated signals. The first chapter of this book considers image processing, more precisely algorithms of image compression and denoising. This research is motivated in particular by the new standard for compression of still images known as JPEG-2000. The second chapter has new results on the Navier-Stokes and other nonlinear evolution equations. Frequency-modulated signals and their use in the detection of gravitational waves are covered in the final chapter. In the book, the author describes both what the oscillating patterns are and the mathematics necessary for their analysis. It turns out that this mathematics involves new properties of various Besov-type function spaces and leads to many deep results, including new generalizations of famous Gagliardo-Nirenberg and Poincaré inequalities. This book is based on the "Dean Jacqueline B. Lewis Memorial Lectures" given by the author at Rutgers University. It can be used either as a textbook in studying applications of wavelets to image processing or as a supplementary resource for studying nonlinear evolution equations or frequency-modulated signals. Most of the material in the book did not appear previously in monograph literature.

Digital Image Processing Computational Signal Processing and Analysis
Select Proceedings of ICNETS2 Springer

Contributed seminar articles with reference to India.

The present book is based on the research papers presented in the International Conference on Soft Computing for Problem Solving (SocProS 2012), held at JK Lakshmipat University, Jaipur, India. This book provides the latest developments in the area of soft computing and covers a variety of topics, including mathematical modeling, image processing, optimization, swarm intelligence, evolutionary algorithms, fuzzy logic, neural networks, forecasting, data mining, etc. The objective of the book is to familiarize the reader with the latest scientific developments that are taking place in various fields and the latest sophisticated problem solving tools that are being developed to deal with the complex and intricate problems that are otherwise difficult to solve by the usual and traditional methods. The book is directed to the researchers and scientists engaged in various fields of Science and Technology.

Digital media histories are part of a global network, and South Asia is a key nexus in shaping the trajectory of digital media in the twenty-first century. Digital platforms like Facebook, WhatsApp, and others are deeply embedded in the daily lives of millions of people around the world, shaping how people engage with others as kin, as citizens, and as consumers. Moving away from Anglo-American and strictly national frameworks, the essays in this book explore the intersections of local, national, regional, and global forces that shape contemporary digital culture(s) in regions like South Asia: the rise of digital and mobile media technologies, the ongoing transformation of established media industries, and emergent forms of digital media practice and use that are reconfiguring

sociocultural, political, and economic terrains across the Indian subcontinent. From massive state-driven digital identity projects and YouTube censorship to Tinder and dating culture, from Twitter and primetime television to Facebook and political rumors, *Global Digital Cultures* focuses on enduring concerns of representation, identity, and power while grappling with algorithmic curation and data-driven processes of production, circulation, and consumption.

This book comprises a collection of papers by international experts, presented at the International Conference on NextGen Electronic Technologies (ICNETS2-2017). ICNETS2 encompassed six symposia covering all aspects of electronics and communications engineering domains, including relevant nano/micro materials and devices. Featuring the latest research on computational signal processing and analysis, the book is useful to researchers, professionals, and students working in the core areas of electronics and their applications, especially signal processing, embedded systems, and networking. This book constitutes the thoroughly refereed proceedings of the 16th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2015, held Catania, Italy, in October 2015. The 76 revised full papers were carefully selected from 129 submissions. Acivs 2015 is a conference focusing on techniques for building adaptive, intelligent, safe and secure imaging systems. The focus of the conference is on following topic: low-level Image processing, video processing and camera networks, motion and tracking, security, forensics and biometrics, depth and 3D, image quality improvement and assessment, classification and recognition, multidimensional signal processing, multimedia compression, retrieval, and navigation.

This book offers a compilation of technical papers presented at the International Research Symposium on Computing and Network Sustainability (IRSCNS 2018) held in Goa, India on 30–31st August 2018. It covers areas such as sustainable computing and security, sustainable systems and technologies, sustainable methodologies and applications, sustainable networks applications and solutions, user-centered services and systems and mobile data management. Presenting novel and recent technologies, it is a valuable resource for researchers and industry professionals alike.

Unequaled in scope, depth, and clinical precision, *Retina*, 5th Edition keeps you at the forefront of today's new technologies, surgical approaches, and diagnostic and therapeutic options for retinal diseases and disorders. Comprehensively updated to reflect everything you need to know regarding retinal diagnosis, treatment, development, structure, function, and pathophysiology, this monumental ophthalmology reference work equips you with expert answers to virtually any question you may face in practice. Consult this title on your favorite e-reader with intuitive search tools and adjustable font sizes. Elsevier eBooks provide instant portable access to your entire library, no matter what device you're using or where you're located. Examine and evaluate the newest diagnostic technologies and approaches that are changing the management of

retinal disease, including future technologies which will soon become the standard. Put the very latest scientific and genetic discoveries, diagnostic imaging methods, drug therapies, treatment recommendations, and surgical techniques to work in your practice. Benefit from the extensive knowledge and experience of esteemed editor Dr. Stephen Ryan, five expert co-editors, and a truly global perspective from 358 other world authorities across Europe, Asia, Australasia, and the Americas. Make the best use of new technologies with expanded and updated coverage of optical coherence tomography (OCT), fundus imaging, and autofluorescence imaging. Apply the latest knowledge on anti-VEGF therapy for age related macular degeneration, diabetic retinopathy and vein disease. Learn about artificial vision, drug delivery to the posterior segment, advances in macular surgery, vitrectomy, and complex retinal detachment, with updates on tumors, retinal genetics, cell biology, important basic science topics, and much more. Get the most out of new pharmacologic approaches in the management of age-related macular degeneration and diabetic retinopathy. In your practice, diagnostic evaluations, and now even treatments, will be influenced by recent scientific discoveries such as in the areas of nanotechnology, neuro protection, stem cells and gene therapy, among other scientific contributions. View videos of surgical procedures and access the complete contents of Retina, 5th Edition online at www.expertconsult.com, fully searchable, with regular updates and a downloadable image gallery.

Best Book of the Year: The Washington Post, NPR, Shelf Awareness, Paste, LitHub, Real Simple 2018 Goodreads Choice Awards Finalist: Best Fiction Longlisted for the 2018 Center for Fiction First Novel Prize “Incandescent...A searing portrait of what feminism looks like in much of the world.” —Vogue “A treat for Ferrante fans, exploring the bonds of friendship and how female ambition beats against the strictures of poverty and patriarchal societies.” —The Huffington Post An electrifying debut novel about the extraordinary bond between two girls driven apart by circumstance but relentless in their search for one another. Poornima and Savitha have three strikes against them: they are poor, they are ambitious, and they are girls. After her mother’s death, Poornima has very little kindness in her life. She is left to care for her siblings until her father can find her a suitable match. So when Savitha enters their household, Poornima is intrigued by the joyful, independent-minded girl. Suddenly their Indian village doesn't feel quite so claustrophobic, and Poornima begins to imagine a life beyond arranged marriage. But when a devastating act of cruelty drives Savitha away, Poornima leaves behind everything she has ever known to find her friend. Her journey takes her into the darkest corners of India's underworld, on a harrowing cross-continental journey, and eventually to an apartment complex in Seattle. Alternating between the girls’ perspectives as they face ruthless obstacles, Shobha Rao's *Girls Burn Brighter* introduces two heroines who never lose the hope that burns within.

This book presents the latest research in the fields of computational intelligence, ubiquitous computing models, communication intelligence, communication security, machine learning, informatics, mobile computing, cloud computing and big data analytics. The best selected papers, presented at the International Conference on Innovative Data Communication Technologies and Application (ICIDCA 2020), are included in the book. The book focuses on the theory, design, analysis, implementation and applications of distributed systems and networks.

This three-book set constitutes the refereed proceedings of the Second International Conference on Recent Trends in Image Processing and Pattern Recognition (RTIP2R) 2018, held in Solapur, India, in December 2018. The 173 revised full papers presented were carefully reviewed and selected from 374 submissions. The papers are organized in topical sections in the three volumes. Part I: computer vision and pattern recognition; machine learning and applications; and image processing. Part II: healthcare and medical imaging; biometrics and applications. Part III: document image analysis; image analysis in agriculture; and data mining, information retrieval and applications.

This book presents the proceedings of the International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT) organized by PES College of Engineering in Mandya. Featuring cutting-edge, peer-reviewed articles from the field of electronics, computer science and technology, it is a valuable resource for members of the scientific research community.

Is your workplace truly diverse? In this gem amongst diversity, equity and inclusion books, Dr. Poornima Luthra challenges us to address the inequality in the 21st Century that exists by expanding the dimensions of diversity in the workplace we address; to define diversity in the workplace in a way that truly represents our whole diverse selves. This book contains everything you need to develop a solid understanding of the various dimensions of diversity and the biases that arise from them. Poornima provides us with the tools needed to address our biases, have inclusive conversations and be an active ally of inclusion. Whether you are an individual employee, team manager, or CEO, Diversifying Diversity is your guide to active allyship in the workplace. When you think of diversity, what comes to mind? Gender? Ethnicity? Age? Sexual orientation? How about physical abilities or neurodiversity? What about educational background, experiences, personality, beliefs, socio-economic background, ways of working or parenthood choices? These are all dimensions of diversity that make up our diversity thumbprint. The questions we need to be asking ourselves are: are we seeing this level of diversity and inclusion in the workplace?, how do we make this a reality? and what does this inclusion in action look like? Case studies from Maersk Tankers, Carlsberg Group, IKEA Retail, Telia Company, Be My Eyes, Project Access International, Stack Recruitment, and Kromann Reumert provide inspiration, and a blueprint for inclusion in the workplace.

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