

World Robotics 2017 International Federation Of Robotics

This is likewise one of the factors by obtaining the soft documents of this **world robotics 2017 international federation of robotics** by online. You might not require more grow old to spend to go to the ebook creation as well as search for them. In some cases, you likewise attain not discover the publication world robotics 2017 international federation of robotics that you are looking for. It will certainly squander the time.

However below, subsequent to you visit this web page, it will be as a result entirely simple to get as competently as download lead world robotics 2017 international federation of robotics

It will not recognize many time as we accustom before. You can accomplish it though perform something else at house and even in your workplace. thus easy! So, are you question? Just exercise just what we have enough money below as competently as evaluation **world robotics 2017 international federation of robotics** what you afterward to read!

Robotics in Education Wilfried Lepuschitz 2018-09-01

This proceedings volume comprises the latest achievements in research and development in educational robotics presented at the 9th International Conference on Robotics in Education (RiE) held in Qawra, St. Paul's Bay, Malta, during April 18-20, 2018. Researchers and educators will find valuable methodologies and tools for robotics in education that encourage learning in the fields of science, technology, engineering, arts and mathematics (STEAM) through the design, creation and programming of tangible artifacts for creating personally meaningful objects and addressing real-world societal needs. This also involves the introduction of technologies ranging from robotics platforms to programming environments and languages. Extensive evaluation results are presented that highlight the impact of robotics on the students' interests and competence development. The presented approaches cover the whole educative range from elementary school to the university level in both formal as well as informal settings.

Post-Human Institutions and Organizations - Ismael Al-Amoudi
2019-12-04

When the Matrix trilogy was published in the mid-1980s, it introduced to mass culture a number of post-human tropes about the conscious machines that have haunted our collective imaginaries ever since. This volume explores the social representations and significance of technological developments - especially AI and human enhancement - that have started to transform our human agency. It uses these developments to revisit theories of the human mind and its essential characteristics: a first-person perspective, concerns and reflexivity. It looks at how the smart machines are used as agents of change in the basic institutions and organisations that hold contemporary societies together, for example in the family and the household, in commercial corporations, in health institutions or in the military. Its main purpose is to enrich the ongoing public discussion of the social and political implications of the smart machines by looking at the extent to which they further digitalise and bureaucratise the world, in particular by asking whether they are used to develop techno-totalitarian societies that corrode normativity and solidarity.

[Proceedings of the 20th Congress of the International Ergonomics](#)

Association (IEA 2018) - Sebastiano Bagnara 2018-08-04

This book presents the proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), held on August 26-30, 2018, in Florence, Italy. By highlighting the latest theories and models, as well as cutting-edge technologies and applications, and by combining findings from a range of disciplines including engineering, design, robotics, healthcare, management, computer science, human biology and behavioral science, it provides researchers and practitioners alike with a comprehensive, timely guide on human factors and ergonomics. It also offers an excellent source of innovative ideas to stimulate future discussions and developments aimed at applying knowledge and techniques to optimize system performance, while at the same time promoting the health, safety and wellbeing of individuals. The proceedings include papers from researchers and practitioners, scientists and physicians, institutional leaders, managers and policy makers that contribute to constructing the Human Factors and Ergonomics approach across a variety of methodologies, domains and productive sectors. This volume includes papers addressing the following topics: Transport Ergonomics and Human Factors (TEHF), and Aerospace Human Factors and Ergonomics.

What To Expect When You're Expecting Robots - Laura Major 2020-10-13

The next generation of robots will be truly social, but can we make sure that they play well in the sandbox? Most robots are just tools. They do limited sets of tasks subject to constant human control. But a new type of robot is coming. These machines will operate on their own in busy, unpredictable public spaces. They'll ferry deliveries, manage emergency rooms, even grocery shop. Such systems could be truly collaborative, accomplishing tasks we don't do well without our having to stop and direct them. This makes them social entities, so, as robot designers Laura Major and Julie Shah argue, whether they make our lives better or worse is a matter of whether they know how to behave. What to Expect When You're Expecting Robots offers a vision for how robots can survive in the real world and how they will change our relationship to technology. From teaching them manners, to robot-proofing public

spaces, to planning for their mistakes, this book answers every question you didn't know you needed to ask about the robots on the way.

Resilience and Digital Disruption - Aldo Geuna 2021-12-01

This book focuses on how digital technologies and rapid developments in artificial intelligence are shaping a new generation of cyber-physical systems based on the convergence among robots, sensors, and 3D printing. The book tells a story based on data and indicators to compare the resilience to this transformation in some key manufacturing regions. As a specific case study, the book discusses in length the transformation of the manufacturing processes in the Italian automotive industry. The authors conclude the book by providing policy implications for regions and cities.

Research Anthology on Cross-Industry Challenges of Industry 4.0 - Management Association, Information Resources 2021-02-05

As Industry 4.0 brings on a new bout of transformation and fundamental changes in various industries, the traditional manufacturing and production methods are falling to the wayside. Industrial processes must embrace modern technology and the most recent trends to keep up with the times. With "smart factories"; the automation of information and data; and the inclusion of IoT, AI technologies, robotics, and cloud computing comes new challenges to tackle. These changes are creating new threats in security, reliability, the regulations around legislation and standardization of technologies, malfunctioning devices or operational disruptions, and more. These effects span a variety of industries and need to be discussed. Research Anthology on Cross-Industry Challenges of Industry 4.0 explores the challenges that have risen as multidisciplinary industries adapt to the Fourth Industrial Revolution. With a shifting change in technology, operations, management, and business models, the impacts of Industry 4.0 and digital transformation will be long-lasting and will forever change the face of manufacturing and production. This book highlights a cross-industry view of these challenges, the impacts they have, potential solutions, and the technological advances that have brought about these new issues. It is ideal for mechanical engineers, electrical engineers, manufacturers,

supply chain managers, logistics specialists, investors, managers, policymakers, production scientists, researchers, academicians, and students looking for cross-industry research on the challenges associated with Industry 4.0.

Working in Digital and Smart Organizations - Edoardo Ales
2018-05-28

Contributing to recent debate on the emergence of digital and agile work, this book explores the implications for labour and employment relations within and beyond organizational boundaries. Taking a multidisciplinary approach to the key issues and challenges of digitalization, this collection covers topics such as the gig economy, crowdworking and Industry 4.0. Theory and analysis are combined as the authors examine the impact of digital and smart work on organization, HRM and labour law. With comprehensive empirical evidence for those interested in understanding the more complex trajectories of today's transforming work relationships, this book will not only appeal to students and academics but also to policy-makers, trade unionists and employers' organizations.

Robots, Healthcare, and the Law - Eduard Fosch-Villaronga
2019-11-04

The integration of robotic systems and artificial intelligence into healthcare settings is accelerating. As these technological developments interact socially with children, the elderly, or the disabled, they may raise concerns besides mere physical safety; concerns that include data protection, inappropriate use of emotions, invasion of privacy, autonomy suppression, decrease in human interaction, and cognitive safety. Given the novelty of these technologies and the uncertainties surrounding the impact of care automation, it is unclear how the law should respond. This book investigates the legal and regulatory implications of the growing use of personal care robots for healthcare purposes. It explores the interplay between various aspects of the law, including safety, data protection, responsibility, transparency, autonomy, and dignity; and it examines different robotic and AI systems, such as social therapy robots, physical assistant robots for rehabilitation, and wheeled passenger

carriers. Highlighting specific problems and challenges in regulating complex cyber-physical systems in concrete healthcare applications, it critically assesses the adequacy of current industry standards and emerging regulatory initiatives for robots and AI. After analyzing the potential legal and ethical issues associated with personal care robots, it concludes that the primarily principle-based approach of recent law and robotics studies is too abstract to be as effective as required by the personal care context. Instead, it recommends bridging the gap between general legal principles and their applicability in concrete robotic and AI technologies with a risk-based approach using impact assessments. As the first book to compile both legal and regulatory aspects of personal care robots, this book will be a valuable addition to the literature on robotics, artificial intelligence, human-robot interaction, law, and philosophy of technology.

China Internet Development Report 2017 - Chinese Academy of Cyberspace Studies
2018-09-25

This book provides a comprehensive review of China's Internet development in the past 23 years since the country's first access to the Internet, especially since the 18th National Congress of the Communist Party of China. It offers a systematic account of China's experience in Internet development and governance, and establishes and presents China's Internet Development Index System, covering network infrastructure, information technology, digital economy, e-governance, cyber security, and international cyberspace governance.

Regional Economic Outlook, October 2018, Asia Pacific - International Monetary Fund. Asia and Pacific Dept
2018-10-12

Growth in the first half of 2018 was softer than in 2017, especially in advanced economies. In contrast, growth remained robust in emerging market economies and broadly in line with expectations. After rising to 6.9 percent in 2017, growth in China continued to be strong into the first half of 2018 but has likely slowed since, given the latest high-frequency indicators, including weakening investment growth. In Japan, after exceeding potential for two years, growth dropped into negative territory in the first quarter of 2018 before rebounding sharply in the second

quarter. In India, growth continues to recover steadily after the disruptions related to demonetization and the rollout of the goods and services tax in the last fiscal year.¹ And in ASEAN-4 economies (Indonesia, Malaysia, the Philippines, Thailand), growth generally lost momentum in the first half of 2018, except in Thailand.

Facing an Exponential Future - Darrel W. Staat 2018-06-05

This book will bring awareness to community college administrators and faculty to the recent technological developments, such as Artificial Intelligence, autonomous vehicles, personal robots, 3-D printing, the Internet of Things, nanotechnology, genome research, bitcoin, and quantum computing. These technologies will require radical change in the operation of community colleges. This book describes the new technologies, discusses the impact on the community college environment, and provides recommendations for modifying college operations.

Online Teaching and Learning in Higher Education Pedro Isaias 2020-09-29

This book is to explore a variety of facets of online learning environments to understand how learning occurs and succeeds in digital contexts and what teaching strategies and technologies are most suited to this format. Business, health, government and education are some of the core sectors of society which have been experiencing deep transformations due to a generalized digitalization. While these changes are not novel, the swift progress of technology and the rising complexity of digital environments place a focus on the need for further research and novel strategies. In the context of education, the promise of increased flexibility and broader access to educational resources is impelling much of higher education's course offerings to online environments. The 21st century learner requires an education that can be pursued anytime and anywhere and that is more aligned with the demands of a digital society. Online education not only assists students to successfully integrate a workforce that is increasingly digital, but it helps them to become more comfortable with the use of technology in general and, hence, more prepared to be prolific digital citizens. The

variety of settings portrayed in this volume attest to the unlimited opportunities afforded by online learning and serve as valuable evidence of its benefit for students' educational experience. Moreover, these research efforts assist a more comprehensive reflection about the delivery of higher education in the context of online settings.

Techno-Geopolitics - Pak Nung Wong 2021-09-24

Techno-Geopolitics explores contemporary US-China relations and the future of global cyber-security through the prisms of geopolitics and financial-technological competition. It puts forward a new conceptual framework for an emerging field of digital statecraft and discusses a range of key issues including the controversies around 5G technology, policy regulations over TikTok and WeChat, the emergence of non-traditional espionage, and potential trends in post-pandemic foreign policy. Analysing the ramifications of the ongoing US-China trade standoff, this book maps the terrain of technological war and the race for global technological leadership and economic supremacy. It shows how China's technological advancements have not only been the key to its national economic development but have also been the core focus of US intelligence. Further, it draws on US-China counter-intelligence cases sourced from the US Department of Justice and Federal Bureau of Investigation (FBI) to explore emerging patterns and techniques of China's espionage practice. A cutting-edge study on the future of statecraft, this volume will be of great interest to scholars and researchers of international relations, security and intelligence studies, information technology and artificial intelligence, political science, especially US foreign policy and China studies. It will also be of great interest to policymakers, career bureaucrats, security and intelligence practitioners, technology regulators, and professionals working with think tanks and embassies.

The Myth of Chinese Capitalism Dexter Roberts 2020-03-10

The untold story of how restrictive policies are preventing China from becoming the world's largest economy Dexter Roberts lived in Beijing for two decades working as a reporter on economics, business and politics for Bloomberg Businessweek. In *The Myth of Chinese Capitalism*,

Roberts explores the reality behind today's financially-ascendant China and pulls the curtain back on how the Chinese manufacturing machine is actually powered. He focuses on two places: the village of Binghuacun in the province of Guizhou, one of China's poorest regions that sends the highest proportion of its youth away to become migrants; and Dongguan, China's most infamous factory town located in Guangdong, home to both the largest number of migrant workers and the country's biggest manufacturing base. Within these two towns and the people that move between them, Roberts focuses on the story of the Mo family, former farmers-turned-migrant-workers who are struggling to make a living in a fast-changing country that relegates one-half of its people to second-class status via household registration, land tenure policies and inequality in education and health care systems. In *The Myth of Chinese Capitalism*, Dexter Roberts brings to life the problems that China and its people face today as they attempt to overcome a divisive system that poses a serious challenge to the country's future development. In so doing, Roberts paints a boot-on-the-ground cautionary picture of China for a world now held in its financial thrall.

Advances in Design, Simulation and Manufacturing III - Vitalii Ivanov 2020-06-04

This book reports on topics at the interface between manufacturing and materials engineering, with a special emphasis on design and simulation issues. Specifically, it covers the development of CAx technologies for product design, the implementation of smart manufacturing systems and Industry 4.0 strategies, topics in technological assurance, numerical simulation and experimental studies on cutting, milling, grinding, pressing and profiling processes, as well as the development and implementation of new advanced materials. Based on the 3rd International Conference on Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE-2020), held on June 9-12, 2020 in Kharkiv, Ukraine, this first volume in a two-volume set provides academics and professionals with extensive information on the latest trends, technologies, challenges and practice-oriented lessons learned in the above-mentioned areas.

Digital Transformation in Business and Society - George Babay 2019-10-04

The digital traces that people leave behind as they conduct their daily lives provide a powerful resource for businesses to better understand the dynamics of an otherwise chaotic society. Digital technologies have become omnipresent in our lives and we still do not fully know how to make the best use of the data these technologies could harness. Businesses leveraging big data appropriately could definitely gain a sustainable competitive advantage. With a balanced mix of texts and cases, this book discusses a variety of digital technologies and how they transform people and organizations. It offers a debate on the societal consequences of the yet unfolding technological revolution and proposes alternatives for harnessing disruptive technologies for the greater benefit of all. This book will have wide appeal to academics in technology management, strategy, marketing, and human resource management.

Transition Point: From Steam to the Singularity - Sean A. Culey 2018-12-07

A tale of technological revolutions, human evolution and the potential for a utopian or dystopian future. The impact of the next wave on business, the economy, society and the future of humanity. A unique book of three intertwined parts that bring together history, economics, business theory, social commentary, disruptive technology and futurism

Inclusive Robotics for a Better Society - J. Pons 2019-07-29

The book reports on advanced topics in interactive robotics research and practice; in particular, it addresses non-technical obstacles to the broadest uptake of these technologies. It focuses on new technologies that can physically and cognitively interact with humans, including neural interfaces, soft wearable robots, and sensor and actuator technologies; further, it discusses important regulatory challenges, including but not limited to business models, standardization, education and ethical-legal-socioeconomic issues. Gathering the outcomes of the 1st INBOTS Conference (INBOTS2018), held on October 16-20, 2018 in Pisa, Italy, the book addresses the needs of a broad audience of academics and professionals working in government and industry, as

well as end users. In addition to providing readers with detailed information and a source of inspiration for new projects and collaborations, it discusses representative case studies highlighting practical challenges in the implementation of interactive robots in a number of fields, as well as solutions to improve communication between different stakeholders. By merging engineering, medical, ethical and political perspectives, the book offers a multidisciplinary, timely snapshot of interactive robotics.

New Technologies, Development and Application IV - Isak

Karabegović 2021-05-11

This book features papers focusing on the implementation of new and future technologies, which were presented at the International Conference on New Technologies, Development, and Application, held at the Academy of Science and Arts of Bosnia and Herzegovina in Sarajevo on June 24-26, 2021. It covers a wide range of future technologies and technical disciplines, including complex systems such as Industry 4.0; patents in industry 4.0; robotics; mechatronics systems; automation; manufacturing; cyber-physical and autonomous systems; sensors; networks; control, energy, renewable energy sources; automotive and biological systems; vehicular networking and connected vehicles; effectiveness and logistics systems; smart grids; nonlinear systems; power, social and economic systems; education; and IoT. The book *New Technologies, Development and Application III* is oriented toward Fourth Industrial Revolution "Industry 4.0," implementation which improves many aspects of human life in all segments and leads to changes in business paradigms and production models. Further, new business methods are emerging and transforming production systems, transport, delivery, and consumption, which need to be monitored and implemented by every company involved in the global market.

Automation and Its Macroeconomic Consequences - Klaus Prettner

2020-06-19

Automation and Its Macroeconomic Consequences reveals new ways to understand the economic characteristics of our increasing dependence on machines. Illuminating technical and social elements, it describes

economic policies that could counteract negative income distribution consequences of automation without hampering the adoption of new technologies. Arguing that modern automation cannot be compared to the Industrial Revolution, it considers consequences of automation such as spatial patterns, urbanization, and regional concerns. In touching upon labor, growth, demographic, and policy, *Automation and its Macroeconomic Consequences* stands at the intersection of technology and economics, offering a comprehensive portrait illustrated by empirical observations and examples. Introduces formal growth models that include automation and the empirical specifications on which the data-driven results rely Focuses on formal modeling, empirical analysis and derivation of evidence-based policy conclusions Considers consequences of automation, such as spatial patterns, urbanization and regional concerns

The Home in the Digital Age - Antonio Argandoña 2021-05-30

The Home in the Digital Age is a set of multidisciplinary studies exploring the impact of digital technologies in the home, with a shift of emphasis from technology to the people living and using this in their homes. The book covers a wide variety of topics on the design, introduction and use of digital technologies in the home, combining the technological dimension with the cognitive, emotional, cultural and symbolic dimensions of the objects that incorporate digital technologies and project them onto people's lives. It offers a coherent approach, that of the home, which gives unity to the discussion. Scholars of the home, the house and the family will find here the connection with the problems derived from the use of domestic robots and connected devices. Students of artificial intelligence, machine learning, robotics, big data and other branches of digital technologies will find ideas and arguments to apply their disciplines to the home and participate fruitfully in forums where digital technologies are built and negotiated in the home. Experts from various disciplines □ psychologists and sociologists; philosophers, epistemologists and ethicists; economists; engineers, architects, urban planners and designers and so on □ and also those interested in developing policies for the home and family will find this book contains

well-founded and useful ideas to focus their work.

World Economic Outlook, October 2018 - International Monetary Fund. Research Dept. 2018-10-09

Global growth for 2018-19 is projected to remain steady at its 2017 level, but its pace is less vigorous than projected in April and it has become less balanced. Downside risks to global growth have risen in the past six months and the potential for upside surprises has receded. Global growth is projected at 3.7 percent for 2018-19—0.2 percentage point lower for both years than forecast in April. The downward revision reflects surprises that suppressed activity in early 2018 in some major advanced economies, the negative effects of the trade measures implemented or approved between April and mid-September, as well as a weaker outlook for some key emerging market and developing economies arising from country-specific factors, tighter financial conditions, geopolitical tensions, and higher oil import bills. The balance of risks to the global growth forecast has shifted to the downside in a context of elevated policy uncertainty. Several of the downside risks highlighted in the April 2018 World Economic Outlook (WEO)—such as rising trade barriers and a reversal of capital flows to emerging market economies with weaker fundamentals and higher political risk—have become more pronounced or have partially materialized. Meanwhile, the potential for upside surprises has receded, given the tightening of financial conditions in some parts of the world, higher trade costs, slow implementation of reforms recommended in the past, and waning growth momentum.

Robots: A Reference Handbook David E. Newton 2018-09-07

Robots: A Reference Handbook differs from most other books on robotics in the variety of resources that it provides to readers of all ages. • Walks the reader through the surprisingly rich history of robotics • Details how robots have developed across the globe • Introduces the reader to a variety of technical, social, political, ethical, and economic issues related to the widespread use of robots today • Provides a variety of resources that can be used in further study of robotics

Information Systems and Neuroscience - Fred D. Davis 2018-11-03

This book presents the proceedings of the NeuroIS Retreat 2018, June

19-21, Vienna, Austria, reporting on topics at the intersection of Information Systems (IS) research, neurophysiology and the brain sciences. Readers will discover the latest findings from top scholars in the field of NeuroIS, which offer detailed insights on the neurobiology underlying IS behavior, essential methods and tools and their applications for IS, as well as the application of neuroscience and neurophysiological theories to advance IS theory.

Industrialisation for Employment and Growth in India - R. Nagaraj 2021-10-07

Intensive study of small firms in industrial clusters and locations on how to create jobs and achieve Make in India goals.

Advances in Service and Industrial Robotics - Nikos A. Aspragathos 2018-09-28

This volume contains the proceedings of the RAAD 2018 conference, covering major areas of research and development in robotics. It provides an overview on the advances in robotics, more specifically in novel design and applications of robotic systems; dexterous grasping, handling and intelligent manipulation; intelligent cooperating and service robots; advanced robot control; human-robot interfaces; robot vision systems and visual serving techniques; mobile robots; humanoid and walking robots; field and agricultural robotics; bio-inspired and swarm robotic systems; developments towards micro and nano-scale robots; aerial, underwater and spatial robots; robot integration in holonic manufacturing; personal robots for ambient assisted living; medical robots and bionic prostheses; intelligent information technologies for cognitive robots etc. The primary audience of the work are researchers as well as engineers in robotics and mechatronics.

Planning and Managing Sustainability in Tourism Asma Farmaki

This book provides a holistic approach to understand the challenges and opportunities related to the planning and management of sustainable development in tourism. The editors present a collection of empirical studies, best-practice cases, and theoretical discussions to draw insights on the economic, social, environmental, and political dimensions of sustainability. Specifically, using a range of case studies examining

sustainability applications within various tourism industry sectors as well as different geographical regions, this book is of value to tourism policymakers, practitioners, academicians, and students, encouraging them to develop proactive behavior. This publication represents an up-to-date, innovative guide in helping readers understand the challenges facing sustainable tourism development and implementation as well as the potential opportunities for both developed and developing nations in pursuing sustainability goals in their tourism plans. .

Humanoid Service Robots - Moritz Merkle 2021-06-27

Based on four empirical studies, Moritz Merkle examines the introduction of humanoid robots to the frontline service encounter in a customer-centric approach focusing on customer expectations and customer responses. The author identifies desirable robotic behavioral cues and shows that service robots meet great acceptance among customers. After service failures, customers are even more likely to forgive service robots than human employees. Further, he shows how crucial it is to manage customer expectations that depend on cultural dimensions and internal reference categories.

Mechanism and Machine Science - Dibakar Sen 2020-07-01

This volume presents select papers from the Asian Conference on Mechanism and Machine Science 2018. This conference includes contributions from both academic and industry researchers and will be of interest to scientists and students working in the field of mechanism and machine science.

New Technologies, Development and Application V - Isak Karabegović 2022-05-25

This book features papers focusing on the implementation of new and future technologies, which were presented at the International Conference on New Technologies, Development and Application, held at the Academy of Science and Arts of Bosnia and Herzegovina in Sarajevo on 23rd–25th June 2022. It covers a wide range of future technologies and technical disciplines, including complex systems such as industry 4.0; patents in industry 4.0; robotics; mechatronics systems; automation; manufacturing; cyber-physical and autonomous systems; sensors;

networks; control, energy, renewable energy sources; automotive and biological systems; vehicular networking and connected vehicles; intelligent transport, effectiveness and logistics systems, smart grids, nonlinear systems, power, social and economic systems, education, IoT. The book *New Technologies, Development and Application V* is oriented towards Fourth Industrial Revolution “Industry 4.0”, in which implementation will improve many aspects of human life in all segments and lead to changes in business paradigms and production models. Further, new business methods are emerging, transforming production systems, transport, delivery and consumption, which need to be monitored and implemented by every company involved in the global market.

Robot 2019: Fourth Iberian Robotics Conference - Manuel F. Silva 2019-11-19

This book gathers a selection of papers presented at ROBOT 2019 – the Fourth Iberian Robotics Conference, held in Porto, Portugal, on November 20th–22nd, 2019. ROBOT 2019 is part of a series of conferences jointly organized by the SPR – Sociedade Portuguesa de Robótica (Portuguese Society for Robotics) and SEIDROB – Sociedad Española para la Investigación y Desarrollo en Robótica (Spanish Society for Research and Development in Robotics). ROBOT 2019 built upon several previous successful events, including three biannual workshops and the three previous installments of the Iberian Robotics Conference, and chiefly focused on presenting the latest findings and applications in robotics from the Iberian Peninsula, although the event was also open to research and researchers from other countries. The event featured five plenary talks on state-of-the-art topics and 16 special sessions, plus a main/general robotics track. In total, after a stringent review process, 112 high-quality papers written by authors from 24 countries were selected for publication.

Research Handbook on the Law of Artificial Intelligence - Woodrow Barfield 2018-12-28

The field of artificial intelligence (AI) has made tremendous advances in the last two decades, but as smart as AI is now, it is getting smarter and

becoming more autonomous. This raises a host of challenges to current legal doctrine, including whether AI/algorithms should count as 'speech', whether AI should be regulated under antitrust and criminal law statutes, and whether AI should be considered as an agent under agency law or be held responsible for injuries under tort law. This book contains chapters from US and international law scholars on the role of law in an age of increasingly smart AI, addressing these and other issues that are critical to the evolution of the field.

China's Long March of Modernisation - Khor Eng Lee 2019-12-11

With the support of its strong leadership and industrious population of close to one billion working Chinese, fully committed and dedicated to its peaceful development and comprehensive modernization, China is forging ahead on the driver's seat in various fields of human endeavour. A leading global role is resourceful and resurgent New China's manifest destiny, with the confidence of attaining (and regaining) the world's largest economy within the coming decade. Holding high the new banner of the Fourth Industrial Revolution IR 4.0, China will continue steadfastly and strongly on its Long March of Modernization. In the military field, the People's Liberation Army has developed from a ragtag fighting force of some 20,000 troops into a two-million-strong military that 's presently rated as the world's third strongest after its counterparts in the US and Russia. Speaking at a grand rally to mark the 90th anniversary of the People's Liberation Army (PLA) at the Great Hall of the People in Beijing on 1 August 2017, President Xi Jinping said the PLA has transformed itself from a "millet plus rifles" single-service force to one that has fully-fledged services. Having basically completed its mechanization, the PLA is moving rapidly toward having "strong" informationized armed forces. (12) President Xi stressed that China must step up the PLA 's transformation into a world-class military that's ready to fight and win wars in defence of its national sovereignty. (13) To quote from the May 2017 Report by the US Department of Defense: "... The PLA is pursuing an ambitious modernization program that aligns with China's two centenary goals..." "DIA (Defense Intelligence Agency) director, Lieutenant General Robert Ashley, emphasized that "China Military

Power 2019" (published and released by the DIA on 15 January 2019) showed China's evolution from a domestically oriented force to a global one. He told reporters the PLA was changing "from a defensive, inflexible ground-based force charged with domestic and peripheral security responsibilities to a joint, highly agile, expeditionary, and power-projecting arm of Chinese foreign policy that engages in military diplomacy and operations across the globe," Gabriel Black reported on 30 January 2019 on the World Socialist Web Site. (14) According to President Xi, the PLA's military mechanization will basically be achieved with advanced IT application and much enhanced strategic capabilities by 2020, on the eve of the CPC's centenary on 1 July 2021. The people's armed forces will be transformed into a world-class military by mid-21st century - to mark the centenary of the founding of New China/the People's Republic of China/the PRC on 1 October 2049. In his 56-page statement to the Senate Armed Services Committee on 15 March 2018, Adm. Harry B. Harris Jr., then naval head of US Pacific Command (USPACOM), wrote that on the current trajectory, the PLA will likely attain its goals of completing military modernisation by 2033 and achieving "world class" status by 2049 "well ahead of the projected completion dates..." With the companion volume CHINA'S RENAISSANCE, the following narrative adumbrates the saga of CHINA'S LONG MARCH OF MODERNISATION and the phenomenal transformation of the world's most populous nation of nearly one and a half billion Chinese -- from abject poverty to its dream of becoming a fully developed and modernized country by mid-21st century. (15) It's the greatest development story in human history!

CMBEBIH 2021 - Almir Badnjevic 2021-05-31

This book presents cutting-edge research and developments in the field of medical and biological engineering. It gathers the proceedings of the International Conference on Medical and Biological Engineering, CMBEBIH 2021, held partly virtually, partly physically, on April 21-24, 2021, from and in Mostar, Bosnia and Herzegovina. Focusing on the goal to 'Stay Focused', contributions report on both basic and applied research in a wide range of related fields, such as biomedical signal

processing, medical physics and imaging, biosensors and micro/nanotechnologies, biomaterials, biomechanics and robotics, cardiorespiratory, endocrine and neural systems engineering. Novel models, methods and technologies for bio- and health informatics, as well as applications of machine learning and AI in health care, and advances in genetic engineering are also highlighted. All in all, this book provides academics and professionals with novel, practical solutions to solve the current problems in biomedical research and applications, and a source of inspiration for improving medicine and health care in the future.

Finance & Development, June 2018 - International Monetary Fund. Communications Department 2018-06-18

This paper focuses on smart policies that can alleviate the short-term pain of technological disruption and pave the way for long-term gain. As computing power improves dramatically and more and more people around the world participate in the digital economy, care should be taken about how to devise policies that will allow us to fully exploit the digital revolution's benefits while minimizing job dislocation. Digital technology will spread further, and efforts to ignore it or legislate against it will likely fail. Even with short-term dislocations, reorganizing the economy around revolutionary technologies generates huge long-term benefits. The digital revolution should be accepted and improved rather than ignored and repressed. Given the global reach of digital technology, and the risk of a race to the bottom, there is a need for policy cooperation like that of global financial markets and sea and air traffic. The history of earlier general-purpose technologies demonstrates that even with short-term dislocations, reorganizing the economy around revolutionary technologies generates huge long-term benefits.

The Digital Agricultural Revolution - Roheet Bhatnagar 2022-05-17

THE DIGITAL AGRICULTURAL REVOLUTION The book integrates computational intelligence, applied artificial intelligence, and modern agricultural practices and will appeal to scientists, agriculturists, and those in plant and crop science management. There is a need for synergy between the application of modern scientific innovation in the area of artificial intelligence and agriculture, considering the major challenges

from climate change consequences viz. rising temperatures, erratic rainfall patterns, the emergence of new crop pests, drought, flood, etc. This volume reports on high-quality research (theory and practice including prototype & conceptualization of ideas, frameworks, real-world applications, policy, standards, psychological concerns, case studies, and critical surveys) on recent advances toward the realization of the digital agriculture revolution as a result of the convergence of different disruptive technologies. The book touches upon the following topics which have contributed to revolutionizing agricultural practices. Applications of Artificial Intelligence in Agriculture (AI models and architectures, system design, real-world applications of AI, machine learning and deep learning in the agriculture domain, integration & coordination of systems and issues & challenges). IoT and Big Data Analytics Applications in Agriculture (theory & architecture and the use of various types of sensors in optimizing agriculture resources and final product, benefits in real-time for crop acreage estimation, monitoring & control of agricultural produce). Robotics & Automation in Agriculture Systems (Automation challenges, need and recent developments and real case studies). Intelligent and Innovative Smart Agriculture Applications (use of hybrid intelligence in better crop health and management). Privacy, Security, and Trust in Digital Agriculture (government framework & policy papers). Open Problems, Challenges, and Future Trends. Audience Researchers in computer science, artificial intelligence, electronics engineering, agriculture automation, crop management, and science.

The New World of Work - Vaughan-Whitehead, Daniel 2021-12-16 Actors in the world of work are facing an increasing number of challenges, including automatization and digitalization, new types of jobs and more diverse forms of employment. This timely book examines employer and worker responses, challenges and opportunities for social dialogue, and the role of social partners in the governance of the world of work.

Applied Technologies - Miguel Botto-Tobar 2020-03-02

This second volume of the three-volume set (CCIS 1193, CCIS 1194, and

CCIS 1195) constitutes the refereed proceedings of the First International Conference on Applied Technologies, ICAT 2019, held in Quito, Ecuador, in December 2019. The 124 full papers were carefully reviewed and selected from 328 submissions. The papers are organized according to the following topics: technology trends; computing; intelligent systems; machine vision; security; communication; electronics; e-learning; e-government; e-participation.

Handbook of Research on Integrating Industry 4.0 in Business and Manufacturing - Karabegovi?, Isak 2020-03-27

In Industry 4.0, industrial productions are adjusted to complete smart automation, which means introducing self-automation methods, self-configuration, self-diagnosis of problems and removal, cognition, and intelligent decision making. This implementation of Industry 4.0 brings about a change in business paradigms and production models, and this will be reflected at all levels of the production process including supply chains and will involve all workers in the production process from managers to cyber-physical systems designers and customers as end-users. The Handbook of Research on Integrating Industry 4.0 in Business and Manufacturing is an essential reference source that explores the development and integration of Industry 4.0 by examining changes and innovations to manufacturing processes as well as its applications in different industrial areas. Featuring coverage on a wide range of topics such as cyber physical systems, integration criteria, and artificial intelligence, this book is ideally designed for mechanical engineers, electrical engineers, manufacturers, supply chain managers, logistics specialists, investors, managers, policymakers, production scientists,

researchers, academicians, and students at the postgraduate level.

Production Urbanism - Dongwoo Yim 2021-10-05

The Industrial Revolution caused a paradigm shift from an agrarian economy to a manufacturing economy, giving birth to the industrial city. 'City' became synonymous with a concentration of factories causing unfiltered scenes between centres of production and urban dwellings. The corrupted image of the city ultimately led to the displacement and separation of production away from residential zones in the 20th century. However, new innovative manufacturing technologies are allowing a coexistence between factories and dwellings through hybrid typologies that blend production back into the urban fabric. This AD issue discusses the implications of the re-emergence of production as an architectural and urban agenda through hybrid models that engage a new socioeconomic shift. Given the contemporary circumstances of a global pandemic affecting global supply chains, it is necessary to deliver a vision for a new productive urbanism that allows autonomous circular economies to flourish. Our 21st-century cities have an obligation to explore a new industrial revolution of shared economies that optimise the use of the legacy systems, infrastructure and building stock. Yet it is ultimately up to architecture to take arms in delivering new typologies. Contributors: Frank Barkow, Michele Bonino and Maria Paola Repellino, Kristiaan Borret, Vicente Guallart, Tali Hatuka, Doojin Hwang, Yerin Kang and Chihoon Lee, Kengo Kuma, Wesley Leeman, Scott Lloyd and Alexis Kalagas, Winy Maas, DK Osseo-Asare, Marina Otero Verzier, Nina Rappaport, and Shohei Shigematsu. Featured architects: Barkow Leibinger, DJH Architects, Goldsmith, Kengo Kuma & Associates, MVRDV, OMA, and TEN.