Automation And Digitization Of University Libraries Status Prospects And Problems 1st Edition

This book is devoted to new developments in measurement technologies for upstream and downstream bioprocessing. The recent advances in biotechnology and bioprocessing have generated a number of new biological products that require more qualified analytical technologies for diverse process analytical needs. These includes especially fast and sensitive measurement technology that, early in the process train, can inform on critical process parameters related to process economy and product quality and that can facilitate ambitions of designing efficient integrated end-to-end bioprocesses. This book covers these topics as well as analytical monitoring methods based either on real-time or in-line sensor technology, on simple and compact bioanalytical devices, or on the use of advanced data prediction methods.

Digital Technology and the Contemporary University examines the often messy realities of higher education in the 'digital age'. Drawing on a variety of theoretical and empirical perspectives, the book explores the intimate links between digital technology and wider shifts within contemporary higher education – not least the continued rise of the managerialist 'bureaucratic' university. It highlights the ways that these new trends can be challenged, and possibly changed altogether. Addressing a persistent gap in higher education and educational technology research, where digital technology is rarely subject to an appropriately critical approach, Degrees of Digitization offers an alternative reading of the social, political, economic and cultural issues surrounding universities and technology. The book highlights emerging themes that are beginning to be recognised and discussed in academia, but as yet have not been explored thoroughly. Over the course of eight wide-ranging chapters the book addresses issues such as: The role of digital technology in university reform; Digital technologies and the organisation of universities; Digital technology and the working lives of university staff; Digital technology and the 'student experience'; Reimagining the place of digital technology within the contemporary university. This book will be of great interest to all students, academic researchers and writers working in the areas of education studies and/or educational technology, as well as being essential reading for anyone working in the areas of higher education research and digital media research.

Lean and Six Sigma initiatives are designed to enable sustained improvements in your company or organization's efficiency and competitiveness. As with other improvement strategies they are dependent on two things, effective management and your ability to automate or digitize elements of your business process. Lean and Digitize provides you with a convincing picture of each of these elements (process improvement, digitization and the management of both) to help you eliminate waste, improve process and service, and better align your information and communications technology with your strategic objectives. Bernardo Nicoletti analyses and reviews the development of automation and telecommunications systems in the context of quality management and process improvement. He uses case examples to illustrate organizational and management approaches to implementation. These, along with his practical guidance, will help you make sense of the complexity, benefits and interrelations between these different elements. The text shows you on the one hand, how to integrate information and communication systems into your process improvement projects and, on the other, how to align information and communication projects with your quality strategy. Without a holistic approach to technology and quality improvement, your initiatives run the risk of being misdirected or simply running out of steam. Changes of this kind will never be easy but at least if you follow the advice in Lean and Digitize you will significantly increase your chances of success.

"This book focuses on the data mining and knowledge management implications that lie within online government"--Provided by publisher. The book covers a wide variety of themes, with good number of practical papers such as Library Automation, Digitization. Data Mining & Data Warchousing, Cloud Computing, Management of e-Journals & e-Resources, Strategic Management and Stress Management. It is hoped that the present work, Current Practices in Academic Librarianship, will have practical application and find wider audience not only among the academic librarians but also by a large number of enthusiastic and upcoming LIS professionals associated with all types of libraries. It is a guiding manual with regard to current practices in LIS field.

We examine the relationship between occupational automation probabilities and employment dynamics over nearly two decades. We show that employment and wage shares of occupations with a higher automation risk have declined in Sweden over the period 1996-2013. This has occurred both in the aggregate private business sector but also within firms, where the wage share changes have been larger than the employment share changes. Combining the automation risk in workers' occupations with individual worker characteristics, we find substantial heterogeneity. This includes that education dampens the automation risk of workers, as the average automation probability of low-skilled workers is almost twice as high as of university graduates. Employment shares in high-risk occupations have moreover declined across all wage levels, and most so in high-wage occupations.

Automation and Digitization of University LibrariesStatus, Prospects and ProblemsImproving University Reputation Through Academic Digital BrandingIGI Global

This book presents a rich compilation of real-world cases on digitalization, the goal being to share first-hand insights from respected organizations and to make digitalization more tangible. As virtually every economic and societal sector is now being challenged by emerging technologies, the digital economy is a highly volatile, uncertain, complex and ambiguous place – and one that holds substantial challenges and opportunities for established organizations. Against this backdrop, this book reports on best practices and lessons learned from organizations that have succeeded in overcoming the challenges and seizing the opportunities of the digital economy. It illustrates how twenty-one organizations have leveraged their capabilities to create disruptive innovations, to develop digital business models, and to digitally transform themselves. These cases stem from various industries (e.g. automotive, insurance, consulting, and public services) and countries, reflecting the many facets of digitalization. As all case descriptions follow a uniform schema, they are easily accessible, and provide insightful examples for practitioners as well as interesting cases for researchers, teachers and students. Digitalization is reshaping business on a global scale, and it is evident that organizations must transform to thrive in the digital economy. Digitalization Cases provides first-hand insights into the efforts of renowned companies. The presented actions, results, and lessons learned are a great inspiration for managers, students, and academics. Anna Kopp, Head of IT Germany, Microsoft Understanding digitalization in all its facets requires knowledge about its opportunities and challenges in different contexts. Providing 21 cases from different companies all around the world, Digitalization Cases makes an important contribution toward the comprehensibility of digitalization – from a practical and a scientific point of view. Dorothy Leidner, Ferguson Professor of Information Systems, Baylor University This book is a great source of inspiration and insight on how to drive digitalization. It shows easy to understand good practice examples which illustrate opportunities, and at the same time helps to learn what needs to be done to realize them. I consider this book a must-read for every practitioner who cares about digitalization. Martin Petry, Chief Information Officer and Head of Business Excellence, Hilti

In recent years the rising interest in e-learning has expanded and it has shifted its focus towards a new beginning with blended learning programmes which makes learning more accessible, engaging, relevant, flexible, reducing amount of time and exploiting ICT and training facilities. Blended learning increases the options for greater quality and quantity of human interaction in a learning environment. A community of learners can interact at anytime and anywhere because of the benefits that computer-mediated educational tools provide. The present study examined the awareness and availability of blended learning in LIS education of selected universities of North East India. From the study, it is clear that use of Blended Learning tools by LIS Teachers and students in LIS departments in universities of North East India is sluggish and getting impetus slowly. Perfectly planned Blended Learning in universities would gain better reputation in terms of quality

education. The book provides a unique approach for LIS academicians to mix both traditional face to face and online learning for the fulfilment of ultimate goal of revamping LIS education in the ICT age. It seems that the use of Blended learning has a special role to play in the modernization of LIS education which can help to preserve and improve its identity and can educate the future librarians who can prove their benefit to the society by being in step with changes and advances in technology. The book has been divided into six chapters and the observations.emphasize the need to offer more training opportunities for LIS Teachers and students, to demonstrate, how Blended Learning and its tools can be applied in their works in academic LIS departments of North East India.

This book develops the core system science needed to enable the development of a complex industrial internet of things/manufacturing cyber-physical systems (IIoT/M-CPS). Gathering contributions from leading experts in the field with years of experience in advancing manufacturing, it fosters a research community committed to advancing research and education in IIoT/M-CPS and to translating applicable science and technology into engineering practice. Presenting the current state of IIoT and the concept of cybermanufacturing, this book is at the nexus of research advances from the engineering and computer and information science domains. Readers will acquire the core system science needed to transform to cybermanufacturing that spans the full spectrum from ideation to physical realization.

Audacity of Automation By: Osei Badu-Nkansah The advancements in Technology, coupled with breakthrough in Telecommunication (referencing the latest Long-Term Evolution (LTE) 4G Wireless Broadband), have converged to open many doors for true Automation and Digitization. Having deployed these for many companies, author Osei Badu-Nkansah came to the realization that the benefits of true Automation can help advance the development of the third world countries, especially those in Africa. Having travelled and worked in many African countries (the bulk of the third world), the dreadful question he has is "How long can the third world and hence Africa remain behind in Technology? How long?" These and many more prompted the need for Osei to share the narratives in this book, assembled from many years of experience as a Certified IT Architect.

Due to changes in the learning and research environment, changes in the behavior of library users, and unique global disruptions such as the COVID-19 pandemic, libraries have had to adapt and evolve to remain up-to-date and responsive to their users. Thus, libraries are adding new, digital resources and services while maintaining most of the old, traditional resources and services. New areas of research and inquiry in the field of library and information science explore the applications of machine learning, artificial intelligence, and other technologies to better serve and expand the library community. The Handbook of Research on Knowledge and Organization Systems in Library and Information Science examines new technologies and systems and their application and adoption within libraries. This handbook provides a global perspective on current and future trends concerning library and information science. Covering topics such as machine learning, library management, ICTs, blockchain technology, social media, and augmented reality, this book is essential for librarians, library directors, library technicians, media specialists, data specialists, catalogers, information resource officers, administrators, IT consultants and specialists, academicians, and students.

This book constitutes the thoroughly refereed proceedings of the 14th International Conference on Designing for a Digital and Globalized World, DESRIST 2019, held Worcester, MA, USA, June 2019. The 20 revised full papers included in the volume were carefully reviewed and selected from 54 submissions. They are organized in the following topical sections: Design Science Research Theory and Methodology; Design Science Research Applications in Healthcare; Design Science Research Applications in Data Science; and Design Science Research Applications in Emerging Topics.

Digital tabletop computers are an ideal platform for games with the social advantages of traditional tabletop games, such as board games and card games, combined with the more streamlined and automated gameplay of video games. Implementing a board game digitally allows for aspects of the game, such as routine in-game activities, rule enforcement and game progression, to be automated. However, the effect of this automation on the players' social experience and enjoyment is poorly understood. To explore this question, a mixed-method study was carried out in which 24 groups of participants played either the abstract strategy board game Checkers or the cooperative board game Pandemic using three different interfaces: the original physical game; a digital tabletop interface which provided minimal automation in an attempt to replicate play of the original game; and a digital tabletop interface which automated many in-game activities, enforced the rules and managed the progression of the game. The study revealed that while automation does have the potential to reduce the overhead to play the game, it can lead to player frustration in several ways. Automating routine in-game activities and game progression can lead to severe awareness deficits. Automation of rule enforcement and management of the game state can streamline gameplay, but can lead to scenarios where players would prefer more control over the game. The negative space around the active game area is important to consider for storage of digital artifacts and physical objects above the table. Finally the digitization and automation of the games did not reduce social interaction, making digital tabletops a promising platform for social games.

As physical collections go digital, the organizational procedures, budgets, and usage patterns of libraries must evolve to meet this change by identifying the various issues that are essential in understanding the management of e-resources. Progressive Trends in Electronic Resource Management in Libraries provides relevant theoretical and practical details from an international perspective on the current e-resources landscape. Through a detailed discussion of the specific aspects of e-resources management, this book is a useful source for library science faculty and students, academic librarians, research scholars, and IT professionals aiming to improve their understanding of the theoretical details, history, selection, acquisition, fair use and management of e-resources.

?Part of our new "Quick Notes" series - this report answers your most pertinent questions of the topic. Do not be deceived by their short nature - these notes are only 38 pages or so. But these are 38 pages of potent dynamite that will supercharge your thinking in the right direction. Included are quick notes and some of the frequently asked questions (FAQs) on supply chain finance that we have encountered in our workshops, seminars, and other forums. Here are some of the topics and questions covered in these quick notes: Why we are qualified to write this list of FAQs on Supply Chain Digitisation? Digitisation Is An Emerging Term In Supply Chain management. What Is Meant By Digitisation, and how is it different that digitalisation? So, what exactly happens with supply chain digitisation? What is the magic of digitisation? What is digitalisation? Why Is Supply Chain Digitisation Important? How Is The Digital Economy Impacting The Supply Chain? How Do we Digitize our Supply Chain, What Are The key Steps? How can we Leverage IoT, AI and automation In Supply Chain Digitization? In a drive towards Supply Chain Digitization, How can we Develop supply chain Analytics Capabilities? What is the relationship between supply chain digitisation and supply chain dashboards? While driving supply Chain Digitization, How do we engage Diverse stakeholders? Explain The Benefits Of Supply Chain Digitization? What Are The eight wastes cut by supply chain digitisation? How big are they anyway? Besides cutting the eight wastes, what are other significant benefits of supply chain digitisation? Will supply chain digitisation ALWAYS lead to positive outcomes? How Are Digital Business And Supply Chain Interrelated? What Are Various Stages Of Digitisation? What Happens In The First Stage Of Digitisation? How was the second wave of digitisation introduced? What were the second generation systems called? if ERP and ERP-II are the systems of the second generation of digitisation in last century, then what is the third generation of digitisation? What shortcomings did these systems foster on the organisations using them? What is the evolution of the current state and future of digitisation and supply chains? What Is The Biggest Challenge In Implementing Digitization In The Supply Chain? What Is This Endless Spiral Of ERP Upgrades And Implementation Shortfalls That You Talk About? Notes on FAQs

Cataloging and technical services managers from many countries offer solutions to library cataloging problems. They describe new ways to coordinate all aspects of automation, staffing, organization, teamwork, and work flow. Techniques have been successfully tested in national,

academic, and speciali.

Issues in Robotics and Automation / 2013 Edition is a ScholarlyEditions™ book that delivers timely, authoritative, and comprehensive information about Computing Information and Control. The editors have built Issues in Robotics and Automation: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Computing Information and Control in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Robotics and Automation: 2013 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

This book presents the proceedings of the 2019 International Conference on Intelligent Systems Applications in Multi-modal Information Analytics, held in Shenyang, China on February 19-20, 2019. It provides comprehensive coverage of the latest advances and trends in information technology, science and engineering, addressing a number of broad themes, including data mining, multi-modal informatics, agent-based and multi-agent systems for health and education informatics, which inspire the development of intelligent information technologies. The contributions cover a wide range of topics: AI applications and innovations in health and education informatics; data and knowledge management; multi-modal application management; and web/social media mining for multi-modal informatics. Outlining promising future research directions, the book is a valuable resource for students, researchers and professionals, and provides a useful reference guide for newcomers to the field.

This edited book brings together international insights for raising rich discussion on industrial growth in the twenty-first century with a focus on the Industry 4.0 drive in the global marketplace, which is driven by innovations, technology, and digital drives. It delineates multiple impacts on business-to-business, business-to-consumers, the global-local business imperatives, and on the national economy. The chapters critically analyze the convergence of technology, business practices, public policies, political ideologies, and consumer values for improving business performance in the context of Industry 4.0 developments. This contribution will enrich knowledge on contemporary business strategies towards automation and digitization process in manufacturing, services, and marketing organizations. The discussions across the chapters contemplate developing new visions and business perspectives to match with the changing priorities of industries in the emerging markets. This timely book presents a remarkable collection of chapters that provides readers with a coherent framework for understanding the factors driving industry competitiveness in contemporary conditions of economic digitalization and the ongoing transition to industry 4.0. Presenting contributions by scientists, engineers, and field experts, the book focuses on using advanced technologies and applications, building innovative and resilient systems in industrial enterprises, developing competitive management systems, creating competence networks, and enhancing integration to foster and sustain industry competitiveness. Both qualitative and quantitative studies are included, and this collection of diverse perspectives adds to the richness of the volume's insights. Along with reviewing deep theoretical concepts and innovative approaches, the publication provides practical applications and technological solutions to real-world problems existing in industry. Recent advances in management theory and practice focused on the forces driving competition in industry are also extensively covered by the leading scholars and practitioners.

This book presents a rich compilation of real-world cases on digitalization, aiming to share first-hand insights from renowned organizations and to make digitalization tangible. With all economic and societal sectors being challenged by emerging technologies, the digital economy is highly volatile, uncertain, complex, and ambiguous. It confronts established organizations with substantial challenges and opportunities. Against this backdrop, this book reports on best practices and lessons learned from organizations that succeeded in tackling the challenges and seizing the opportunities of the digital economy. It illustrates how twenty organizations leveraged their capabilities to create disruptive innovation, to develop digital business models, and to digitally transform themselves. These cases stem from various industries (e.g. automotive, insurance, consulting, and public services) and countries, covering the many facets that digitalization may have. As all case descriptions follow a unified template, they are easily accessible for readers and provide insightful examples for practitioners as well as interesting cases for researchers, teachers, and students. Almost every organization is trying to figure out how best to respond to the opportunities and threats posed by digitalization. This book provides valuable lessons from those organizations that have already begun their digital transformation journey. Michael D. Myers, Professor of Information Systems, University of Auckland Digitalization Cases provides firsthand insights into the efforts of renowned companies. The presented actions, results, and lessons learned are a great inspiration for managers, students, and academics. This book gives real pointers on the how and where to start. Anna Kopp, Head of IT Germany, Microsoft The cases compiled in the second volume of Digitalization Cases show how disruption can actively be managed. Further, long-term insights from extended success stories of the first edition highlight that courage to change pays off well. This book represents a motivation for organizations to drive their digital transformation journeys actively. Markus Richter, State Secretary at the Federal Ministry of the Interior, Building and Community and Federal Government Commissioner for Information Technology, Germany

The emergence of cloud computing, internet of things, mobile technologies, and social networking have created better-connected members of the public who are digitally linked with each other in real time. Establishing this two-way interaction between citizens and governments has thus become attractive and an expected feature of governments worldwide. Previously, federal and local governments relied on first-generation technologies to provide basic levels of automation and digitization. Now, because of their desire to become more open, transparent, accountable, and connected, newer technologies including cloud computing, mobile networking, big data analytics, Web 2.0, and social media must be developed and utilized. Web 2.0 and Cloud Technologies for Implementing Connected Government is an essential reference source that presents various dimensions of connected government and connected e-governance visions as well as the latest emerging technologies. Offering development methodologies, practical examples, best practices, case studies, and the latest research, this book covers new strategies for implementing better-connected government models and the technologies that serve to establish these frameworks, including in-depth examinations of mobile technologies, automation, business intelligence, etc. as well as the various ethical and security issues surrounding the use and protection of data. This book is essential for federal, state, and local government officials; policymakers; civil servants; IT specialists; security analysts; academicians; researchers; and students.

The theme of this meeting was the management of technologies in the context of developing countries, and in the light of recent developments concerning especially open source software and applications. Speakers from various countries debated in English and in French over the importance of changing the rules concerning library management systems, as well as related implications. Results show that open source software might be a solution, although some conditions apply.

Strategic disruptors in companies and economies, including blockchain technology, big data, and artificial intelligence, can

contribute to the creation of new business opportunities, jobs, and growth. Research is needed on the impacts of these disruptors in Asia, as well as analyses on new business ecosystems and policy implications. Global Challenges and Strategic Disruptors in Asian Businesses and Economies presents a rich collection of chapters that explore and discuss the state of the art, emerging topics, challenges, and success factors in business, big data, innovation, and technology in Asia. The book explores how the internet of things, big data, and artificial intelligence can provide solutions for global challenges and companies. Including topics on digital economy, strategic management, and information technologies, this book is ideal for managing directors, general managers, corporate heads of firms, politicians, executives, entrepreneurs, academicians, decision makers, policymakers, researchers, and students looking to enhance their understanding and collaboration in business, disruptive innovation, and technology in Asia.

This book highlights the opportunities and risks of digitalization and digital transformation for our global economy at both the micro and macro level. Experts from various fields, presenting both scientific and practice-oriented perspectives, identify and critically analyse areas of tension and development potential in connection with new business models and sustainability efforts in our society. It is divided into four parts, the first of which highlights new technological advances in areas such as blockchain, cryptocurrencies and fintechs, and discusses the challenges they pose for public regulation. The second part illustrates digitalizations effects on and potential advantages for public welfare, focusing on key areas such as education, health and smart cities. The third part focuses on challenges for corporate and public management, particularly for leadership and Corporate Social Responsibility, while the fourth part discusses new dimensions for analysis based on big data. The contributions gathered here are partly an outcome of the International Conference on Digitalization, Digital Transformation and Sustainability held in Budapest in October 2020 and generously supported by the Hanns Seidel Foundation.

Since its first volume in 1960, Advances in Computers has presented detailed coverage of innovations in hardware and software and in computer theory, design, and applications. It has also provided contributors with a medium in which they can examine their subjects in greater depth and breadth than that allowed by standard journal articles. As a result, many articles have become standard references that continue to be of significant, lasting value despite the rapid growth taking place in the field.

Going Digital: Strategies for Access, Preservation, and Conversion of Collections to a Digital Format is a collection of articles orginally presented at a series of five symposiums sponsored by the Research Libraries Group. It offers you succinct and analytic views of the problems and benefits of digital resources in the traditional academic library. Library administrators, collection managers, and librarians will learn the advantages and disadvantages of traditional and digital collections and the costs of providing local access or implementing remote access to digital collections. Originally presented at a series of five symposiums sponsored by the Research Libraries Group, the articles inGoing Digital will help you decide upon a cost-effective collection method that will meet the needs of your library, your patrons, and your budget.

Academic libraries cater to the diverse needs of scholars, scientists, technocrats, researchers, students, and others personally and professionally invested in higher education. Due to advancements in information and communication technologies (ICT), the vision and mission of academic libraries are changing in developing countries. Challenges of Academic Library Management in Developing Countries provides the latest theoretical frameworks and empirical research into academic libraries, investigating concerns such as illiteracy, budgeting, software development, technical training, and others. In particular, this book will be of use to professionals and researchers working in the field of library and information science who are looking for new methods and best practices in the management of effective academic libraries. This book is part of the Advances in Library and Information Science series collection.

Andre Große Kamphake deals with the digitization in controlling and focuses in this context on the analysis of automated forecasting processes within a chemical company. He aims at outlining to what extent and how accurate forecasting processes can be automated in the age of digitization and big data. Therefore, the forecast of the working capital is put at the center since it plays a leading role for the cash collection process. Based on data from 2015 to 2018, two different forecasting models are combined to optimally predict the different components contained in the working capital. The author manages to prove that both a trained forecasting algorithm achieves a prediction accuracy of 92.49 % and statistical methods in machine learning lead to a significant increase in forecasts compared to naive forecasting models.

EEA2011 is an integrated conference concentration its focus on Electrical Engineering and Automation. In the proceeding, you can learn much more knowledge about Electrical Engineering and Automation of researchers from all around the world. The main role of the proceeding is to be used as an exchange pillar for researchers who are working in the mentioned fields. In order to meet the high quality of Springer, AISC series, the organization committee has made their efforts to do the following things. Firstly, poor quality paper has been refused after reviewing course by anonymous referee experts. Secondly, periodically review meetings have been held around the reviewers about five times for exchanging reviewing suggestions. Finally, the conference organizers had several preliminary sessions before the conference. Through efforts of different people and departments, the conference will be successful and fruitful.

Is digitalization a value-added approach? Global leaders believe so, and this book reveals how to digitally transform your business model and compete in today's economy. It presents a roadmap consisting of five phases; Digital Reality, Digital Ambition, Digital Potential, Digital Fit, and Digital Implementation, each with step-by-step instructions as well as innovative activities and tools. This is a timely book offering professionals a concise, tried-and-trusted guide to the digital transformation of business models. International Academic Conference on Global Education, Teaching and Learning International Academic Conference on Management, Economics, Business and Marketing International Academic Conference on Transport, Logistics, Tourism and Sport Science

As higher education institutions adapt to an increasingly digital world, it is imperative that they adopt technological techniques that allow them to establish a digital presence. Academic e-branding involves managing a university's brand and image to promote and build the reputation of the institution, especially in regards to its student and faculty research and achievements. Without a solid digital presence, higher education institutions may struggle to remain competitive. Improving University Reputation Through Academic Digital Branding is a critical scholarly publication that explores digital branding and its role in establishing the reputation of academic institutions and programs. Featuring a range of topics including digital visibility, social media, and inclusive education, this book is ideal for higher education boards, brand managers, university and college marketers, researchers, academicians, practitioners, administrators, and students.

The book presents a collection of 103 peer-reviewed articles from the Second International Conference on Intelligent Systems in Production Engineering and Maintenance (ISPEM 2018). The conference was organized by the Faculty of Mechanical Engineering and CAMT (Centre for Advanced Manufacturing Technologies), Wroc?aw University of Science and Technology and was held in Wroc?aw (Poland) on 17–18 September 2018. The conferences topics included the possibility of using a wide range of intelligent methods in production engineering, presenting and discussing new solutions for innovative plants, research findings and case studies demonstrating advances in production and maintenance from the point of view of Industry 4.0 – particularly applications of intelligent systems, methods and tools in production engineering, maintenance, logistics, quality management, information systems and product development. The book is divided into two parts: the first includes papers related to intelligent systems in production engineering, while the second is dedicated to special sessions focusing on: 1. Computer Aided methods in Production Engineering 2. Mining 4.0 and Intelligent Mining Transportation 3. Modelling and Simulation of Production Processes 4. Multi-Faceted Modelling of Networks and Processes 5. Product Design and Product Manufacturing in Industry 4.0 This book is an excellent source of information for scientists in the field of manufacturing engineering and for top managers in production enterprises.