Case Study Thingworx

Continuous improvements in
digitized practices have created
opportunities for businesses to
develop more streamlined
processes. This not only leads to
higher success in day-to-day
production, but it also increases
the overall success of
businesses. E-Manufacturing
and E-Service Strategies in
Contemporary Organizations is a
critical scholarly resource that
explores the advances in cloud-
based solutions in the service
and manufacturing realms of
corporations and promotes
communication between

Page 1/86

customers and service providers and manufacturers. Featuring coverage on a wide range of topics including smart manufacturing, internet banking, database system adoption, this book is geared towards researchers, professionals, managers, and academicians seeking current and relevant research on the improvement of cloud-based systems for manufacturing and service. This book discusses online engineering and virtual instrumentation, typical working areas for today's engineers and inseparably connected with areas such as Internet of Things,

cyber-physical systems, collaborative networks and grids, cyber cloud technologies, and service architectures, to name just a few. It presents the outcomes of the 14th International Conference on Remote Engineering and Virtual Instrumentation (REV2017), held at Columbia University in New York from 15 to 17 March 2017. The conference addressed fundamentals, applications and experiences in the field of online engineering and virtual instrumentation in the light of growing interest in and need for teleworking, remote services and collaborative working

environments as a result of the globalization of education. The book also discusses guidelines for education in university-level courses for these topics. This book constitutes the proceedings of the 8th International Workshop on Design, Modeling, and Evaluation of Cyber Physical Systems, CyPhy 2018 and 14th International Workshop on Embedded and Cyber-Physical Systems Education, WESE 2018, held in conjunction with ESWeek 2018, in Torino, Italy, in October 2018.The 13 full papers presented together with 1 short paper in this volume were

carefully reviewed and selected from 18 submissions. The conference presents a wide range of domains including Modeling, simulation, verification, design, cyber-physical systems, embedded systems, real-time systems, safety, and reliability. This book offers the latest research and new perspectives on Interactive Collaborative Learning and Engineering Pedagogy. We are currently witnessing a significant transformation in education, and in order to face today's real-world challenges, higher education has to find innovative ways to quickly respond to these

new needs. Addressing these aspects was the chief aim of the 21st International Conference on Interactive Collaborative Learning (ICL2018), which was held on Kos Island, Greece from September 25 to 28, 2018. Since being founded in 1998, the conference has been devoted to new approaches in learning, with a special focus on collaborative learning. Today the ICL conferences offer a forum for exchanging information on relevant trends and research results, as well as sharing practical experiences in learning and engineering pedagogy. This book includes papers in the

fields of: * Collaborative Learning
* Computer Aided Language
Learning (CALL) * Educational
Virtual Environments *
Engineering Pedagogy
Education * Game based
Learning * K-12 and Pre-College
Programs * Mobile Learning
Environments: Applications It will
benefit a broad readership,
including policymakers,
educators, researchers in
pedagogy and learning theory,
school teachers, the learning
industry, further education
lecturers, etc.
Cyber Physical Systems. Model-
Based Design
The Next Avatar of the Internet

Industry 4.0
15th IFIP WG 5.1 International
Conference, PLM 2018, Turin,
Italy, July 2-4, 2018,
Proceedings
Proceedings of the 2018
Computing Conference, Volume
1
Digital Acceleration and The
New Normal - Proceedings of the
INFUS 2022 Conference,
Volume 1
8th International Workshop,
CyPhy 2018, and 14th
International Workshop, WESE
2018, Turin, Italy, October 4–5,
2018, Revised Selected Papers
Industry 4.0 is a challenge for today's
businesses. It's a concept that

encompasses the technological innovations of automation, control, and information technology, as it's applied to manufacturing processes. It's a new topic that recently emerged in academia and industry, with few books that target both management and engineering. This book will cover the new advances and the way to manage competitive organizations. The chapters will include terms of theory, evidence, and/or methodology, and significantly advance social scientific research. This book: Focuses on the latest and most recent research findings occurring on the topic of Industry 4.0 Presents the ways companies around the world are facing today's technological challenges Assists researchers and practitioners in selecting the correct options and strategies to

manage competitive organizations Provides recent advances in international studies Encompasses the main technological innovations in the fields of automation, control, and information technology applied to the manufacturing processes Industry 4.0: Challenges, Trends, and Solutions in Manangment and Engineering is designed to increase the knowledge and effectiveness of all managers and engineers in all organizations and activity sectors Carolina Machado has been teaching in the Human Resources Management subjects since 1989 at University of Minho, Portugal. She has been an associate professor since 2004, with experience and research interest areas in the field of Human Resource Management, International Human

Resource Management, Human Resource Management in SMEs, Training and Development, Emotional Intelligence, Management Change, Knowledge Management, and Management/HRM in the Digital Age. She is head of the Department of Management and head of the Human Resources Management Work Group at University of Minho, as well as chief editor of the International Journal of Applied Management Sciences and Engineering (IJAMSE). J. Paulo Davim is a professor at the Department of Mechanical Engineering of the University of Aveiro, Portugal. He has more than 30 years of teaching and research experience in Manufacturing, Materials, Mechanical, and Industrial Engineering, with special emphasis in

Machining & Tribology. He has also interest in Management, Engineering Education, and Higher Education for Sustainability. He has worked as evaluator of projects for ERC (European Research Council) and other international research agencies. There are numerous publications which introduce and discuss the Internet of Things (IoT). In the midst of these, this work has several unique characteristics which should change the reader's perspective, and in particular, provide a more profound understanding of the impact of the IoT on society. Dependable IoT for Human and Industry covers the main aspects of Internet of Things and IoT based systems such as global issues of applications, modeling, development and

implementation of dependable IoT for different human and industry domains. Technical topics discussed in the book include: Introduction in Internet of vital and trust Things Modelling and assessment techniques for dependable and secure IoT systems Architecting and development of IoT systems Implementation of IoT for smart cities and drone fleets; business and blockchain, transport and industry Training courses and education experience on Internet and Web of ThingThe book contains chapters which have their roots in the International Conference IDAACS 2017, and Workshop on Cyber Physical Systems and IoT Dependability CyberIoT-DESSERT 2017.

CYBER-PHYSICAL SYSTEMS The 13

chapters in this book cover the various aspects associated with Cyber-Physical Systems (CPS) such as algorithms, application areas, and the improvement of existing technology such as machine learning, big data and robotics. Cyber-Physical Systems (CPS) is the interconnection of the virtual or cyber and the physical system. It is realized by combining three well-known technologies, namely "Embedded Systems," "Sensors and Actuators," and "Network and Communication Systems." These technologies combine to form a system known as CPS. In CPS, the physical process and information processing are so tightly connected that it is hard to distinguish the individual contribution of each process from the output. Some exciting innovations such

as autonomous cars, quadcopter, spaceships, sophisticated medical devices fall under CPS. The scope of CPS is tremendous. In CPS, one sees the applications of various emerging technologies such as artificial intelligence (AI), Internet of Things (IoT), machine learning (ML), deep learning (DL), big data (BD), robotics, quantum technology, etc. In almost all sectors, whether it is education, health, human resource development, skill improvement, startup strategy, etc., one sees an enhancement in the quality of output because of the emergence of CPS into the field. Audience Researchers in Information technology, artificial intelligence, robotics, electronics and electrical engineering, This book disseminates the current

trends among innovative and high-quality research regarding the implementation of conceptual frameworks, strategies, techniques, methodologies, informatics platforms and models for developing advanced industrial tools and techniques and their application in different fields. It presents a collection of theoretical, real-world and original research works in the field of applied industrial tools and techniques. The text goes beyond the state-of-the-art in the field of industrial and software engineering, listing successful applications and use cases of studies of new approaches, applications, methods, techniques for developing advanced industrial tools, methodologies and techniques and their application in different fields. The topics covered in this

book are of interest to academics,
researchers, students, stakeholders and
consultants.
Implementing Industry 4.0
Take Charge of Your Feelings, Become a
Better You
Thingworx Third Edition
Past, Present, and Future Impacts of
Climate on Infrastructure
Challenges, Trends, and Solutions in
Management and Engineering
Scaling Data Science for the Industrial
Internet of Things
Augmented Reality for the Industrial
Enterprise
Explore IoT
Architecture, Design,
and its Implementation
KEY FEATURES ?
Comprehensive overview

of frameworks, protocols, networks, security, and privacy of IoT. ? Covers innovative IoT use cases and industry-wide application areas. ? Includes case studies to demonstrate IoT principles and practices. DESCRIPTION Internet of Things (IoT) A Quick Start Guide explains the architecture, design, and implementation of IoT. The book charts a path where none exists and introduces readers

to the ethical and responsible development of IoT solutions. The book begins with the history of IoT, followed by chapters on architectures, networks, and protocols in both software and hardware. The book reveals the next level of IoT framework knowledge, such as ThingWorx and Salesforce Thunder. This book places equal emphasis on a wide range of security and privacy aspects, including Zero Trust Approaches,

Forensics, Access
Control Lists, and
Public Key
Infrastructure.
Wearables, Industry 4.O,
Workplace Analytics, and
Product Asset Management
are just a few of the
applications and use
cases that are
discussed.
Transformative trends
such as Augmented
Analytics, AR/VR,
Digital Twins, and many
more are also discussed
in the book. After
reading this book,
readers will get a broad

spectrum of knowledge of IoT. They will be able to put the guidance shared to use. WHAT YOU WILL LEARN ? Access to a variety of IoT application areas with compelling use cases. ? Opportunity to experiment with frameworks, tools, and platforms for various IoT assignments. ? Acquire conceptual knowledge about IoT architecture, protocols, and networks. ? Take a look at integrating IoT procedures, software,

and hardware. ?
Investigate how to
develop a data
management strategy when
implementing IoT. ?
Understand the policies
governing IoT security,
privacy, and
interoperability. WHO
THIS BOOK IS FOR This
book is intended for IT
graduates, computer
engineers, and industry
experts who wish to
learn IoT principles,
techniques, and
protocols to
successfully create and
deploy safe and secure

IoT systems. One does not need prior knowledge of IoT or programming to read this book. TABLE OF CONTENTS 1. IoT: The Basic Dynamics 2. IoT—Nuts and Bolts of the Architecture 3. Data Management Strategy 4. IoT Security, Privacy and Interoperability: What, Why, How, and What Next 5. Applications and Use Cases 6. Current and Future Trends

This book constitutes the refereed proceedings of the 13th IFIP WG 5.1 International Conference

on Product Lifecycle
Management, PLM 2O16,
held in Columbia, SC,
USA, in July 2O16. The
57 revised full papers
presented were carefully
reviewed and selected
from 77 submissions. The
papers are organized in
the following topical
sections: knowledge
sharing, re-use and
preservation;
collaborative
development
architectures;
interoperability and
systems integration;
lean product development

and the role of PLM; PLM
and innovation; PLM
tools; cloud computing
and PLM tools;
traceability and
performance; building
information modeling;
big data analytics and
business intelligence;
information lifecycle
management; industry
4.O; metrics, standards
and regulation; and
product, service and
systems.
The Mood Elevator Take
Charge of Your Feelings,
Become a Better You We
all ride the Mood

Elevator up and down every day. How well we do it impacts our relationship, our personal effectiveness, our career and our experience of life. Most people take that ride for granted and don't think it can be influenced. But what if we knew the right buttons to push to move to the top of the Mood Elevator. Wouldn't it be useful if there were proven ways to make visits to the lower floors less frequent and

less intense? In this very practical guide, Larry Senn provides an operating manual to keep you out of the emotional basement. He shows how to recognize when you've become so accustomed to being stuck on a lower floor—depressed, stressed, anxious, judgmental—you don't even realize it and what to do to interrupt those negative thought patterns and start going up again. He urges us to cultivate mental attitudes like curiosity

and gratitude that will keep us on the higher floors and explains how to quiet the mind and nurture positive thoughts without succumbing to Pollyannaish denial. And as someone who took up triathalons at the age of seventy, he speaks from experience when he emphasizes the inseparable connection between physical health and mental health. Through Senn's decades of work as a consultant, the Mood Elevator has

been enthusiastically embraced by hundreds of thousands of people around the world. It symbolizes our moment-to-moment experience of life, encompassing a wide range of feelings. Together, these emotions play a major role in defining the quality of our lives and relationships and our effectiveness on the job. By sharing his work with a wider audience, Senn hopes to help all of us live life at our best.

This volume of the series ARENA2O36 compiles the outcomes of the first Stuttgart Conference on Automotive Production (SCAP2O2O). It contains peer-reviewed contributions from a theoretical as well as practical vantage point and is topically structured according to the following four sections: It discusses (I) Novel Approaches for Efficient Production and Assembly Planning, (II) Smart Production Systems and

Data Services, (III)
Advances in
Manufacturing Processes
and Materials, and (IV)
New Concepts for
Autonomous,
Collaborative
Intralogistics. Given
the restrictive
circumstances of 2O2O,
the conference was held
as a fully digital event
divided into two parts.
It opened with a pre-
week, allowing everyone
to peruse the scientific
contributions at their
own pace, followed by a
two-day live event that

enabled experts from the
sciences and the
industry to engage in
various discussions. The
conference has proven
itself as an insightful
forum that allowed for
an expertly exchange
regarding the pivotal
Advances in Automotive
Production and
Technology.
Designing Embedded
Systems and the Internet
of Things (IoT) with the
ARM mbed
Virtual & Augmented
Reality For Dummies
8th International

Conference, ICSOB 2O17,
Essen, Germany, June
12-13, 2O17, Proceedings
Dependable IoT for Human
and Industry
ECIE 2O18 13th European
Conference on Innovation
and Entrepreneurship
15th International
Conference, NEW2AN 2O15,
and 8th Conference,
ruSMART 2O15, St.
Petersburg, Russia,
August 26-28, 2O15,
Proceedings
Cyber-Physical Systems

This book addresses topics
related to the Internet of
Things (IoT), machine

learning, cyber-physical systems, cloud computing, and autonomous vehicles in Industry 4.0. It investigates challenges across multiple sectors and industries and considers Industry 4.0 for operations research and supply chain management. Cyber-Physical, IoT, and Autonomous Systems in Industry 4.0 encourages readers to develop novel theories and enrich their knowledge to foster sustainability. It examines the recent research trends and the future of cyber-physical systems, IoT, and autonomous systems as they relate to Industry 4.0. This book is intended for

undergraduates,
postgraduates, academics,
researchers, and industry
individuals to explore new
ideas, techniques, and tools
related to Industry 4.0.
This book constitutes the
refereed proceedings of the
8th International Conference
on Software Business, ICSOB
2017, held in Essen,
Germany, in June 2017. The
11 full papers and 5 short
papers presented in this
volume were carefully
reviewed and selected from
30 submissions. They were
organized in topical
sections named: software
startups and platform
governance; software
business development;

software ecosystems and App stores.

This book constitutes the refereed post-conference proceedings of the 15th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2018, held in Turin, Spain, in July 2018. The 72 revised full papers presented were carefully reviewed and selected from 82 submissions. The papers are organized in the following topical sections: building information modeling; collaborative environments and new product development; PLM for digital factories and cyber physical systems; ontologies and data models;

education in the field of
industry 4.0; product-
service systems and smart
products; lean organization
for industry 4.0; knowledge
management and information
sharing; PLM infrastructure
and implementation; PLM
maturity, implementation and
adoption; 3D printing and
additive manufacturing; and
modular design and products
and configuration and change
management.

This book constitutes the
joint refereed proceedings
of the 15th International
Conference on Next
Generation Wired/Wireless
Advanced Networks and
Systems, NEW2AN 2015, and
the 8th Conference on

Internet of Things and Smart Spaces, ruSMART 2015, held in St. Petersburg, Russia, in August 2015. The 74 revised full papers were carefully reviewed and selected from numerous submissions. The 15 papers selected for ruSMART are organized in topical sections on IoT infrastructure, IoT platforms, smart spaces and IoT cases, and smart services and solutions. The 59 papers from NEW2AN deal with the following topics: streaming, video, and TCP applications, mobile "ad hoc" networks, security, and clouds, sensor networks and IoT, cellular systems, novel

systems and techniques,
business and services,
signals and circuits,
optical and satellite
systems, and advanced
materials and their
properties.
Internet of Things (IoT) A
Quick Start Guide
Advanced Analytics in Real
Time
New Perspectives on Applied
Industrial Tools and
Techniques
Internet of Things Use Cases
for the Healthcare Industry
Design and Construction of
an RFID-enabled
Infrastructure
The Challenges of the
Digital Transformation in
Education

13th IFIP WG 5.1
International Conference,
PLM 2016, Columbia, SC, USA,
July 11-13, 2016, Revised
Selected Papers

One of the most important issues businesses face is how to adapt to changing operational and administrative processes. Globalization and high competition highlight the importance of technological innovation and its contribution to the organizational performance of businesses. Technological Developments in Industry 4.0 for Business Applications is a collection of innovative research on the methods and applications of

developing new services related to industrial processes in order to improve organizational well-being. It also looks at the technological, organizational, and social aspects of Industry 4.0. Highlighting a range of topics including enterprise integration, logistic models, and supply chain, this book is ideally designed for computer engineers, managers, business and IT professionals, business researchers, and post-graduate students seeking current research on the evolution and development of business applications in the modern industry era.

This book relates research being implemented in three main research areas: secure connectivity and intelligent systems, real-time analytics and manufacturing knowledge and virtual manufacturing. Manufacturing SMEs and MNCs want to see how Industry 4.0 is implemented. On the other hand, groundbreaking research on this topic is constantly growing. For the aforesaid reason, the Singapore Agency for Science, Technology and Research (A*STAR), has created the model factory initiative. In the model factory, manufacturers, technology

**providers and the broader
industry can (i) learn how I4.0
technologies are implemented
on real-world manufacturing
use-cases, (ii) test process
improvements enabled by such
technologies at the model
factory facility, without
disrupting their own
operations, (iii) co-develop
technology solutions and (iv)
support the adoption of
solutions at their everyday
industrial operation. The book
constitutes a clear base ground
not only for inspiration of
researchers, but also for
companies who will want to
adopt smart manufacturing
approaches coming from**

Industry 4.0 in their pathway to digitization.
This book constitutes the refereed post-conference proceedings of the 16th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2019, held in Moscow, Russia, in July 2019. The 38 revised full papers presented were carefully reviewed and selected from 63 submissions. The papers are organized in the following topical sections: 3D modelling and data structures; PLM maturity and industry 4.0; ontologies and semantics; PLM and conceptual design; knowledge and change

**management; IoT and PLM; integrating manufacturing realities; and integration of in-service and operation.
A comprehensive and accessible introduction to the development of embedded systems and Internet of Things devices using ARM mbed Designing Embedded Systems and the Internet of Things (IoT) with the ARM mbed offers an accessible guide to the development of ARM mbed and includes a range of topics on the subject from the basic to the advanced. ARM mbed is a platform and operating system based on 32-bit ARM Cortex-M microcontrollers.**

This important resource puts the focus on ARM mbed NXP LPC1768 and FRDM-K64F evaluation boards. NXP LPC1768 has powerful features such as a fast microcontroller, various digital and analog I/Os, various serial communication interfaces and a very easy to use Web based compiler. It is one of the most popular kits that are used to study and create projects. FRDM-K64F is relatively new and largely compatible with NXP LPC1768 but with even more powerful features. This approachable text is an ideal guide that is divided into four sections; Getting Started with the ARM

mbed, Covering the Basics, Advanced Topics and Case Studies. This getting started guide: Offers a clear introduction to the topic Contains a wealth of original and illustrative case studies Includes a practical guide to the development of projects with the ARM mbed platform Presents timely coverage of how to develop IoT applications Designing Embedded Systems and the Internet of Things (IoT) with the ARM mbed offers students and R&D engineers a resource for understanding the ARM mbed NXP LPC1768 evaluation board.

Practical Guide, Methods, Tools and Use Cases for Industry
Stuttgart Conference on Automotive Production (SCAP2020)
Sensing as a Service for Internet of Things: A Roadmap
Proceedings of the 21st International Conference on Interactive Collaborative Learning (ICL2018) - Volume 1
Proceedings of the 14th International Conference on Remote Engineering and Virtual Instrumentation REV 2017, held 15-17 March 2017, Columbia University, New York, USA
Cyber-Physical, IoT, and

Autonomous Systems in Industry 4.0
Applications and Case Studies

Software Business8th International Conference, ICSOB 2017, Essen, Germany, June 12-13, 2017, ProceedingsSpringer

This book discusses the use of machine vision and technologies in specific engineering case studies and focuses on how machine vision techniques are impacting every step of industrial processes and how smart sensors and cognitive big data analytics are supporting the automation processes in Industry 4.0 applications. Industry 4.0, the

Fourth Industrial Revolution, combines traditional manufacturing with automation and data exchange. Machine vision is used in the industry for reliable product inspections, quality control, and data capture solutions. It combines different technologies to provide important information from the acquisition and analysis of images for robot-based inspection and guidance. Features Presents a comprehensive guide on how to use machine vision for Industry 4.0 applications, such as analysis of images for automated inspections, object detection, object tracking, and more

Includes case studies of Robotics Internet of Things with its current and future applications in healthcare, agriculture, and transportation Highlights the inclusion of impaired people in the industry, for example, an intelligent assistant that helps deaf-mute individuals to transmit instructions and warnings in a manufacturing process Examines the significant technological advancements in machine vision for Industrial Internet of Things and explores the commercial benefits using real-world applications from healthcare to transportation Discusses a conceptual

framework of machine vision for various industrial applications
The book addresses scientific aspects for a wider audience such as senior and junior engineers, undergraduate and postgraduate students, researchers, and anyone interested in the trends, development, and opportunities for machine vision for Industry 4.O applications.
As more and more devices become interconnected through the Internet of Things (IoT), there is an even greater need for this book,which explains the technology, the internetworking, and applications that are making

IoT an everyday reality. The book begins with a discussion of IoT "ecosystems" and the technology that enables them, which includes: Wireless Infrastructure and Service Discovery Protocols Integration Technologies and Tools Application and Analytics Enablement Platforms A chapter on next-generation cloud infrastructure explains hosting IoT platforms and applications. A chapter on data analytics throws light on IoT data collection, storage, translation, real-time processing, mining, and analysis, all of which can yield actionable insights from the data collected

by IoT applications. There is also a chapter on edge/fog computing. The second half of the book presents various IoT ecosystem use cases. One chapter discusses smart airports and highlights the role of IoT integration. It explains how mobile devices, mobile technology, wearables, RFID sensors, and beacons work together as the core technologies of a smart airport. Integrating these components into the airport ecosystem is examined in detail, and use cases and real-life examples illustrate this IoT ecosystem in operation. Another in-depth look

is on envisioning smart healthcare systems in a connected world. This chapter focuses on the requirements, promising applications, and roles of cloud computing and data analytics. The book also examines smart homes, smart cities, and smart governments. The book concludes with a chapter on IoT security and privacy. This chapter examines the emerging security and privacy requirements of IoT environments. The security issues and an assortment of surmounting techniques and best practices are also discussed in this chapter.

This book explores potentially disruptive and transformative healthcare-specific use cases made possible by the latest developments in Internet of Things (IoT) technology and Cyber-Physical Systems (CPS). Healthcare data can be subjected to a range of different investigations in order to extract highly useful and usable intelligence for the automation of traditionally manual tasks. In addition, next-generation healthcare applications can be enhanced by integrating the latest knowledge discovery and dissemination tools. These sophisticated, smart healthcare

applications are possible thanks
to a growing ecosystem of
healthcare sensors and
actuators, new ad hoc and
application-specific sensor and
actuator networks, and advances
in data capture, processing,
storage, and mining. Such
applications also take advantage
of state-of-the-art machine and
deep learning algorithms, major
strides in artificial and ambient
intelligence, and rapid
improvements in the stability and
maturity of mobile, social, and
edge computing models.
A to Z of IoT Essentials (English
Edition)
Intelligent Computing

Foundations and Techniques
Intelligent Systems and
Applications
Software Business
The Model Factory as the Key
Enabler for the Future of
Manufacturing
E-Manufacturing and E-Service
Strategies in Contemporary
Organizations
This book, gathering the
Proceedings of the 2018 Computing
Conference, offers a remarkable
collection of chapters covering a
wide range of topics in intelligent
systems, computing and their real-
world applications. The Conference
attracted a total of 568 submissions
from pioneering researchers,

scientists, industrial engineers, and students from all around the world. These submissions underwent a double-blind peer review process. Of those 568 submissions, 192 submissions (including 14 poster papers) were selected for inclusion in these proceedings. Despite computer science's comparatively brief history as a formal academic discipline, it has made a number of fundamental contributions to science and society—in fact, along with electronics, it is a founding science of the current epoch of human history ('the Information Age') and a main driver of the Information Revolution. The goal of this conference is to provide a platform

for researchers to present fundamental contributions, and to be a premier venue for academic and industry practitioners to share new ideas and development experiences. This book collects state of the art chapters on all aspects of Computer Science, from classical to intelligent. It covers both the theory and applications of the latest computer technologies and methodologies. Providing the state of the art in intelligent methods and techniques for solving real-world problems, along with a vision of future research, the book will be interesting and valuable for a broad readership. Internet 2.0 (previously called the Internet of Things) presents a

tantalizing vision of bridging the cyber and physical worlds to forge a seamless planet-wide infrastructure in which cyber resources and physical objects can interact without human intervention. The technology needed to build the infrastructure already exists. However, more than a decade after the vision of Internet 2.0 was articulated, it remains largely unrealized except in isolated settings. Following a background discussion, Design and Construction of an RFID-enabled Infrastructure: the Next Avatar of the Internet addresses three questions: what are the barriers to the emergence of Internet 2.0 as a global infrastructure? What are the features

that Internet 2.0 architecture must have if it is to become a successful global infrastructure?How can one build a prototype of Internet 2.0? The quest for answers to the above questions threads the narrative through the birthing process and maturation of two successful global infrastructures—the Internet and the web. Based on a review of the design philosophies underlying the Internet and the Web, their histories and the strategic stewardship that midwifed their births, the book presents the architectural guidelines for the Internet 2.0 infrastructure as well as a blueprint for the construction of its prototype. The discussion in the book is

consolidated into a list of technical and strategic guidelines intended to facilitate the incubation of Internet 2.0.

Your one-stop guide to designing, building, managing, and operating Industrial Internet of Things (IIoT) applications Key Features Build IIoT applications and deploy them on Platform as a Service (PaaS) Learn data analytics techniques in IIoT using Spark and TensorFlow Understand and combine Predix services to accelerate your development Book Description The Industrial Internet refers to the integration of complex physical machines with networked sensors and software. The current growth in

the number of sensors deployed in heavy machinery and industrial equipment will lead to an exponential increase in data being captured that needs to be analyzed for predictive analytics. This also opens up a new avenue for developers who want to build exciting industrial applications. Industrial Internet Application Development serves as a one-stop guide for software professionals wanting to design, build, manage, and operate IIoT applications. You will develop your first IIoT application and understand its deployment and security considerations, followed by running through the deployment of IIoT

applications on the Predix platform. Once you have got to grips with what IIoT is, you will move on to exploring Edge Development along with the analytics portions of the IIoT stack. All this will help you identify key elements of the development framework, and understand their importance when considering the overall architecture and design considerations for IIoT applications. By the end of this book, you will have grasped how to deploy IIoT applications on the Predix platform, as well as incorporate best practices for making fault-tolerant and reliable IIoT systems. What you will learn Connect prototype devices to

CloudStore data in IIoT applications
Explore data management
techniques and implementation
Study IIoT applications analytics
using Spark ML and TensorFlow
Deploy analytics and visualize the
outcomes as Alerts Understand
continuous deployment using
Docker and Cloud Foundry Make
your applications fault-tolerant and
monitor them with New Relic
Understand IIoT platform
architecture and implement IIoT
applications on the platform Who
this book is for This book is
intended for software developers,
architects, product managers, and
executives keen to gain insights into
Industrial Internet development. A

basic knowledge of any popular programming language such as Python will be helpful. Engineering education aims to prepare engineering undergraduates for their future professional journey where they will be called on to solve challenges affecting individuals, companies, and society. The European Project Semester (EPS) exposes students to project- and challenge-based learning, paying special attention to international multidisciplinary teamwork, sustainable design, innovative thinking, and project management in order to develop a set of desired professional skills. The Handbook of Research on Improving

Engineering Education With the European Project Semester shares the best practices in engineering education through close examination of the EPS. It describes the adopted learning framework, analyzes how it contributes to the development of skills, reports on the types of challenges proposed to teams, and delivers a set of team-project cases from the network of providers. Covering topics such as engineering ethics, project management, and sustainable behavior, this book is essential to students in engineering, engineers, engineering educators, educational researchers, academic administration and faculty, and academicians.

Industrial Internet Application
Development
The Internet of Things
Online Engineering & Internet of
Things
Machine Vision for Industry 4.0
Technological Developments in
Industry 4.0 for Business
Applications
Innovation Through Information
Systems
Advances in Computer Science and
Ubiquitous Computing
*An easy-to-understand primer on
Virtual Reality and Augmented
Reality Virtual Reality (VR) and
Augmented Reality (AR) are
driving the next technological
revolution. If you want to get in on*

*the action, this book helps you
understand what these technologies
are, their history, how they're
being used, and how they'll affect
consumers both personally and
professionally in the very near
future. With VR and AR poised to
become mainstream within the next
few years, an accessible book to
bring users up to speed on the
subject is sorely needed—and that's
where this handy reference comes
in! Rather than focusing on a
specific piece of hardware (HTC
Vive, Oculus Rift, iOS ARKit) or
software (Unity, Unreal Engine),
Virtual & Augmented Reality For
Dummies offers a broad look at
both VR and AR, giving you a*

*bird's eye view of what you can
expect as they continue to take the
world by storm. * Keeps you up-to-
date on the pulse of this fast-
changing technology * Explores
the many ways AR/VR are being
used in fields such as healthcare,
education, and entertainment *
Includes interviews with designers,
developers, and technologists
currently working in the fields of
VR and AR Perfect for both
potential content creators and
content consumers, this book will
change the way you approach and
contribute to these emerging
technologies.
This book presents the combined
proceedings of the 8th*

International Conference on Computer Science and its Applications (CSA-16) and the 11st International Conference on Ubiquitous Information Technologies and Applications (CUTE 2016), both held in Bangkok, Thailand, December 19 - 21, 2016. The aim of these two meetings was to promote discussion and interaction among academics, researchers and professionals in the field of ubiquitous computing technologies. These proceedings reflect the state-of-the-art in the development of computational methods, involving theory, algorithm, numerical simulation, error and uncertainty analysis and

novel application of new processing techniques in engineering, science, and other disciplines related to ubiquitous computing.
This book presents recent research in intelligent and fuzzy techniques on digital transformation and the new normal, the state to which economies, societies, etc. settle following a crisis bringing us to a new environment. Digital transformation and the new normal-appearing in many areas such as digital economy, digital finance, digital government, digital health, and digital education are the main scope of this book. The readers can benefit from this book for preparing for a digital "new

*normal" and maintaining a
leadership position among
competitors in both manufacturing
and service companies. Digitizing
an industrial company is a
challenging process, which involves
rethinking established structures,
processes, and steering
mechanisms presented in this book.
The intended readers are intelligent
and fuzzy systems researchers,
lecturers, M.Sc., and Ph.D.
students studying digital
transformation and new normal.
The book covers fuzzy logic theory
and applications, heuristics, and
metaheuristics from optimization to
machine learning, from quality
management to risk management,*

making the book an excellent source for researchers.
What may be the consequences for the performance of an organization if all stakeholders are not consulted regarding ThingWorx? Can we do ThingWorx without complex (expensive) analysis? What problems are you facing and how do you consider ThingWorx will circumvent those obstacles? How do we accomplish our long range ThingWorx goals? Do we aggressively reward and promote the people who have the biggest impact on creating excellent ThingWorx services/products? Defining, designing, creating, and implementing a process to solve a

*challenge or meet an objective is
the most valuable role... In EVERY
group, company, organization and
department. Unless you are talking
a one-time, single-use project, there
should be a process. Whether that
process is managed and
implemented by humans, AI, or a
combination of the two, it needs to
be designed by someone with a
complex enough perspective to ask
the right questions. Someone
capable of asking the right
questions and step back and say,
'What are we really trying to
accomplish here? And is there a
different way to look at it?' This
Self-Assessment empowers people
to do just that - whether their title is*

entrepreneur, manager, consultant, (Vice-)President, CxO etc... - they are the people who rule the future. They are the person who asks the right questions to make ThingWorx investments work better. This ThingWorx All-Inclusive Self-Assessment enables You to be that person. All the tools you need to an in-depth ThingWorx Self-Assessment. Featuring 700 new and updated case-based questions, organized into seven core areas of process design, this Self-Assessment will help you identify areas in which ThingWorx improvements can be made. In using the questions you will be better able to: - diagnose

ThingWorx projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices - implement evidence-based best practice strategies aligned with overall goals - integrate recent advances in ThingWorx and process design strategies into practice according to best practice guidelines Using a Self-Assessment tool known as the ThingWorx Scorecard, you will develop a clear picture of which ThingWorx areas need attention. Your purchase includes access details to the ThingWorx self-assessment dashboard download which gives you your dynamically prioritized

*projects-ready tool and shows your
organization exactly what to do
next. You will receive the following
contents with New and Updated
specific criteria: - The latest quick
edition of the book in PDF - The
latest complete edition of the book
in PDF, which criteria correspond
to the criteria in... - The Self-
Assessment Excel Dashboard,
and... - Example pre-filled Self-
Assessment Excel Dashboard to get
familiar with results generation
...plus an extra, special, resource
that helps you with project
managing. INCLUDES
LIFETIME SELF ASSESSMENT
UPDATES Every self assessment
comes with Lifetime Updates and*

*Lifetime Free Updated Books.
Lifetime Updates is an industry-
first feature which allows you to
receive verified self assessment
updates, ensuring you always have
the most accurate information at
your fingertips.
Product Lifecycle Management in
the Digital Twin Era
14th IFIP WG 5.1 International
Conference, PLM 2017, Seville,
Spain, July 10-12, 2017, Revised
Selected Papers
Advances in Automotive
Production Technology – Theory
and Application
Product Lifecycle Management to
Support Industry 4.0
CSA-CUTE2016*

Proceedings of the 2018 Intelligent Systems Conference (IntelliSys) Volume 2
Internet of Things, Smart Spaces, and Next Generation Networks and Systems
Gathering the Proceedings of the 2018 Intelligent Systems Conference (IntelliSys 2018), this book offers a remarkable collection of chapters covering a wide range of topics in intelligent systems and computing, and their real-world applications. The Conference attracted a total of 568 submissions from pioneering researchers,

scientists, industrial engineers, and students from all around the world. These submissions underwent a double-blind peer review process, after which 194 (including 13 poster papers) were selected to be included in these proceedings. As intelligent systems continue to replace and sometimes outperform human intelligence in decision-making processes, they have made it possible to tackle many problems more effectively. This branching out of computational intelligence

in several directions, and the use of intelligent systems in everyday applications, have created the need for such an international conference, which serves as a venue for reporting on cutting-edge innovations and developments. This book collects both theory and application-based chapters on all aspects of artificial intelligence, from classical to intelligent scope. Readers are sure to find the book both interesting and valuable, as it presents state-of-the-art intelligent

methods and techniques for solving real-world problems, along with a vision of future research directions.
This book constitutes the refereed post-conference proceedings of the 14th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2017, held in Seville, Spain, in July 2017. The 64 revised full papers presented were carefully reviewed and selected from 78 submissions. The papers are organized in the following topical sections: PLM maturity, implementation

and adoption; PLM for
digital factories; PLM and
process simulation; PLM,
CAX and knowledge
management; PLM and
education; BIM; cyber-
physical systems; modular
design and products; new
product development;
ontologies, knowledge and
data models; and Product,
Service, Systems (PSS).
Digital Supply Chain and
Logistics with IoT
Product Lifecycle
Management and the
Industry of the Future
A Hands-on Introduction to
Rapid AR Development

Intelligent and Fuzzy
Systems
Volume III: A Collection of
Latest Research on
Management Issues
Handbook of Research on
Improving Engineering
Education With the
European Project Semester
Enabling Technologies,
Platforms, and Use Cases