

Just In Time For Operators The Shopfloor Series

Just-In-Time for Operators TPM for Every Operator Oee for Operators Autonomous Maintenance for Operators Focused Equipment Improvement for TPM Teams *Just-in-Time for Operators Autonomous Maintenance in Seven Steps Pull Production for the Shopfloor Kanban for the Shopfloor 5S for Operators Kaizen for the Shop Floor Quick Changeover for Operators 5S for Operators Mistake-Proofing for Operators OEE for Operators Implementing Standardized Work Quick Changeover for Operators Poka-Yoke Standard Work for the Shopfloor Cellular Manufacturing Kanban for the Shopfloor Tpm for Supervisors Implementing Standardized Work Manufacturing Consent Augmented Reality Achieving Lean Changeover Identifying Waste on the Shopfloor TPM Team Guide The Digital Shopfloor- Industrial Automation in the Industry 4.0 Era Information Technology for Manufacturing Total Productive Maintenance TPM for Every Operator Introduction to TPM El Sistema de Produccion Toyota Total Productive Maintenance Total Productive Maintenance We Are in This Dance Together Quick Changeover for Operators Manufacturing Handbook of Best Practices Shop Floor Control Systems*

When somebody should go to the books stores, search establishment by shop, shelf by shelf, it is really problematic. This is why we offer the ebook compilations in this website. It will completely

ease you to see guide **Just In Time For Operators The Shopfloor Series** as you such as.

By searching the title, publisher, or authors of guide you truly want, you can discover them rapidly. In the house, workplace, or perhaps in your method can be every best area within net connections. If you aspiration to download and install the Just In Time For Operators The Shopfloor Series, it is unconditionally simple then, before currently we extend the member to buy and create bargains to download and install Just In Time For Operators The Shopfloor Series as a result simple!

Quick Changeover for Operators Jun 19 2021 The powerful knowledge contained in this book can make your workplace more productive, your job simpler, and everything more satisfying. It's about how to do equipment or product changeovers in record time--often in less than 10 minutes. The method you'll learn here is called SMED, short for "Single-Minute Exchange of Die" (the "single" here means a single-digit number of minutes). Developed from a longer book, *A Revolution in Manufacturing: The SMED System* (cat no. PP9903), written for managers, this book is written for frontline production and assembly associates. It presents an overview of the reasons why SMED is important for companies and employees, sets out the three basic stages of SMED, and then devotes a separate chapter to each of these stages. The first chapter of the book is like an "owner's manual" that tells you how to get the most out of your reading time by using the margin assists, summaries, and other features of the book to help pull out exactly what you need. One of the most effective ways to use this book is to read and discuss it with other employees. The authors planned the book so that it can be used this way, organizing the book into chunks of information that can be covered in a

series of short sessions. Each chapter includes reflection questions to stimulate group discussion. A Learning Package is also available (catalog no.PP7126), which includes a leader's guide, overhead transparencies to summarize major points, and color slides showing examples of SMED applications in different kinds of companies.

Implementing Standardized Work Dec 14 2020 The first book in The One-Day Expert series detailed the initial steps that Thomas, a young, high-potential plant manager in an industrial group, took to assess his plant's situation through measurement of operators performance. The second book in the series, Implementing Standardized Work: Writing Standardized Work Forms focuses on the next step

Cellular Manufacturing Mar 17 2021 Cellular Manufacturing: One-Piece Flow for Workteams introduces production teams to basic cellular manufacturing and teamwork concepts and orients them for participating in the design of a new production cell. Use this book to get everyone on board to reduce lead time, work-in-process inventory, and other profit-draining wastes. Each chapter includes an overview and a summary to reinforce concepts, as well as reflection questions, which can be used to encourage group discussions. This volume is part of Productivity Press' Shopfloor Series, which offers a simple, cost-effective approach for building basic knowledge about key manufacturing improvement topics

5S for Operators Oct 24 2021 Hiroyuki Hirano's five pillars of the visual workplace: sort, set in order, shine, standardize and sustain are the most fundamental and often overlooked aspects in continuous improvement initiatives. Together, these concepts form the framework of the 5S System, a set of principles whose simplicity often betrays its powerful impact on the workplace. So much of the 5S System seems like common sense, that it is astonishing how often such seemingly simple

practices are absent in manufacturing operations. That is why Productivity Press is proud to bring you 5S for Operators: 5 Pillars of the Visual Workplace, a hands-on book that explains the principles, rationale and implementation details of the 5S System. Easy-to-read and apply, each section of the text is loaded with questions, outlines, summaries, diagrams and illustrations. Most importantly, 5S for Operators provides the foundational knowledge that is essential for implementing not just the 5S System, but overall manufacturing improvements like shorter equipment changeovers, just-in-time inventory, total quality management and total productive maintenance. Since its publication in 1996, 5S for Operators has been and continues to be hugely popular, consistently ranking among Productivity's list of top-sellers, and its popularity is not hard to understand. 5S has proven its worth in one company after another, consistently reducing waste, guaranteeing product quality, ensuring safety and increasing the bottom line. With 5S for Operators, the 5S System can have the same profound effect on your operations. To introduce the 5S system and sell its use to executives as well as workers, consider purchasing— 5S System: An Introduction DVD Catalog no. PP5934, Adhering to the principle of efficiency that defines this revolutionary and proven system, this video succinctly explains what is involved, who should participate, and what it will take to get started.

Manufacturing Handbook of Best Practices Jul 29 2019 Manufacturing Handbook of Best Practices: An Innovation, Productivity, and Quality Focus gives you a working knowledge of today's cutting edge tools - preparing you for the way you will be doing your job tomorrow. With contributions from seasoned manufacturing experts, the book provides a single-source reference to what's currently happening in mod

El Sistema de Produccion Toyota Jan 03 2020 Si usted quiere entender como se origino el sistema de producci?n Toyota y por que tiene exito, debe leer este libro. Aqui encontrara una introducci?n

avanzada del justo a tiempo. El mundo le debe mucho a Taiichi Ohno. Nos ha demostrado como fabricar con mayor eficacia, como reducir costos, como producir una mayor calidad, y a examinar atentamente como nosotros, en nuestra calidad de seres humanos, trabajamos en una fabrica. El relato que Ohno cuenta en este libro es brillante. Deberia ser leido por todos los gerentes. No es solo un relato acerca de la fabricaci?n; sino tambien sobre como dirigir exitosamente una empresa.

TPM for Every Operator Mar 05 2020 TPM for Every Operator covers the information that needs to be communicated to operators when facilitating a company-wide TPM initiative. It covers the main aspects of TPM, introducing frontline workers to this important manufacturing strategy that encourages them to participate in and even initiate routine maintenance that can help extend machine life and prevent stoppages. Based on actual implementations, this book addresses the challenges which TPM often raises for operators. Concise and accessible, it can be used as part of an extensive TPM training program, especially when paired with the TPM Guide for Workshop Leaders.

Kaizen for the Shop Floor Dec 26 2021 The philosophy of kaizen, which simply means continuous improvement, needs to adopted by any organization seeking to implement lean improvements that go beyond cost cutting. Kaizen events are opportunities to make focused changes in the workplace. Kaizen for the Shopfloor takes readers through the critical steps for conducting a very effective kaizen event: one that is well planned, well implemented, and well documented. As the newest addition to the Shingo Prize Winning Shopfloor Series, Kaizen for the Shopfloor distills the complexities of jump starting lean processes into an easily accessible format for those frontline employees who make lean possible. About the Shopfloor Series: Put proven improvement tools in the hands of your entire workforce! Progressive shopfloor improvement techniques are imperative for manufacturers who want to stay competitive and to achieve world class excellence. And it's the

comprehensive education of all shopfloor workers that ensures full participation and success when implementing new programs. The Shopfloor Series books make practical information accessible to everyone by presenting major concepts and tools in simple, clear language and at a reading level that has been adjusted for operators by skilled instructional designers. One main idea is presented every two to four pages so that the book can be picked up and put down easily. Each chapter begins with an overview and ends with a summary section. Helpful illustrations are used throughout.

5S for Operators Jan 27 2022 Hiroyuki Hirano's five pillars of the visual workplace: sort, set in order, shine, standardize and sustain are the most fundamental and often overlooked aspects in continuous improvement initiatives. Together, these concepts form the framework of the 5S System, a set of principles whose simplicity often betrays its powerful impact on the workplace. So much of the 5S System seems like common sense, that it is astonishing how often such seemingly simple practices are absent in manufacturing operations. That is why Productivity Press is proud to bring you 5S for Operators: 5 Pillars of the Visual Workplace, a hands-on book that explains the principles, rationale and implementation details of the 5S System. Easy-to-read and apply, each section of the text is loaded with questions, outlines, summaries, diagrams and illustrations. Most importantly, 5S for Operators provides the foundational knowledge that is essential for implementing not just the 5S System, but overall manufacturing improvements like shorter equipment changeovers, just-in-time inventory, total quality management and total productive maintenance. Since its publication in 1996, 5S for Operators has been and continues to be hugely popular, consistently ranking among Productivity's list of top-sellers, and its popularity is not hard to understand. 5S has proven its worth in one company after another, consistently reducing waste, guaranteeing product quality, ensuring safety and increasing the bottom line. With 5S for Operators, the 5S System can have the same

profound effect on your operations. To introduce the 5S system and sell its use to executives as well as workers, consider purchasing: 5S System: An Introduction DVD (Catalog no. PP5934) Adhering to the principle of efficiency that defines this revolutionary and proven system, this video succinctly explains what is involved, who should participate, and what it will take to get started.

TPM Team Guide Jul 09 2020 TPM involves employees companywide in preventing equipment abnormalities and breakdowns. The first line of defense: equipment operators-the people most familiar with daily operating conditions. In addition to regular cleaning and inspection, team-based improvement activities make effective use of operators' hands-on knowledge. How do you organize TPM teams and keep them vital? TPM Team Guide tells supervisors, workgroup leaders, and operators how to develop the team-based skills required for successful TPM implementation. Geared toward TPM projects, it describes basic elements of improvement activities for any kind of shopfloor team. TPM Team Guide gives simple explanations of basic TPM concepts such as the six big losses, and emphasizes the integration of TPM activities with production management. Chapters describe the team-based improvement process step by step, from goal to standardization of the improved operations. Team leaders will learn how to hold effective meetings and deal with the human issues that stand in the way of success. The tools for team problem solving and the steps for preparing a good presentation of results are detailed here as well. Written in simple language, with abundant illustrations and cartoon examples, this book makes TPM activities understandable to everyone in the company. Frontline supervisors, operators, facilitators, and trainers in manufacturing companies will want to use this practical guide to improve company performance and build a satisfying workplace for employees.

Achieving Lean Changeover Sep 10 2020 Defined as the total process of converting a line or process

from one product to another, changeover will not only help your organization improve quality and flexibility, but it will save thousands and sometimes even tens of thousands of dollars per hour. Achieving Lean Changeover: Putting SMED to Work is about the practical implementation of the single minute exchange of die (SMED) philosophy developed by Shigeo Shingo at Toyota. Although the book is principally about changeover of manufacturing, packaging, and assembly processes, the general concepts and examples are also applicable in lighter industries that require turnover of processes—including airlines, hospitals, operating rooms, and food service. Filled with practical examples, the book shares proven methods that can help you convert changeover downtime to productive uptime. It explains why reducing changeover time is important financially and provides a structured methodology to help you identify and implement improvement opportunities. The author addresses both the machinery issues with changeover/ SMED and the associated operational issues such as costs, waiting times, material movement, documentation, and product/component design. He also devotes a chapter to discussing, in detail, how to calculate the cost of changeover downtime, an area that remains a mystery to many. Taking a holistic approach to changeover, the text includes a chapter devoted to organizing changeover improvements, keeping them on track, and developing and implementing a formal changeover reduction program. Presenting time-tested methods and practical examples from a variety of industries, it offers you the opportunity to reduce changeover time and cost and provide your organization with the flexibility needed to better satisfy your customers in three important dimensions: product variety, responsiveness, and price.

Pull Production for the Shopfloor Mar 29 2022 In a "pull" production system, the final process pulls needed parts from the previous process, which pulls from the process before it, and so on, as determined by customer demand. This allows you to operate without preset schedules and avoid

unnecessary costs, wastes, and delays on the manufacturing floor. Pull Production for the Shopfloor introduce

Augmented Reality Oct 12 2020 With the explosive growth in mobile phone usage and rapid rise in search engine technologies over the last decade, augmented reality (AR) is poised to be one of this decade's most disruptive technologies, as the information that is constantly flowing around us is brought into view, in real-time, through augmented reality. In this cutting-edge book, the authors outline and discuss never-before-published information about augmented reality and its capabilities. With coverage of mobile, desktop, developers, security, challenges, and gaming, this book gives you a comprehensive understanding of what augmented reality is, what it can do, what is in store for the future and most importantly: how to benefit from using AR in our lives and careers. Educates readers how best to use augmented reality regardless of industry Provides an in-depth understanding of AR and ideas ranging from new business applications to new crime fighting methods Includes actual examples and case studies from both private and government application

Autonomous Maintenance for Operators Aug 02 2022 TPM leads to soaring productivity when your operators are positively and energetically involved in the maintenance of their own equipment. Autonomous Maintenance for Operator teaches specific autonomous maintenance activities. For operators, supervisors, team leaders, and TPM coordinators, this book provides useful guidance and case study examples on autonomous maintenance. Activity boards, one-point lessons, photos, cartoons, and actual examples of implementation demonstrate the huge benefits of developing informed, motivated operators who take ownership of and improve their equipment. Shopfloor operators will learn: 4 skills they can develop to keep equipment running smoothly. how to inspect for problems as they clean equipment. ideas for containing debris that shortens equipment life. tips

for effective lubrication management. how to use activity boards, meetings, and one-point lessons to promote TPM goals. This book assumes some familiarity with the steps of autonomous maintenance and focuses on specific autonomous maintenance activities.

Poka-Yoke May 19 2021 If your goal is 100% zero defects, here is the book for you — a completely illustrated guide to poka-yoke (mistake-proofing) for supervisors and shop-floor workers. Many poka-yoke ideas come from line workers and are implemented with the help of engineering staff or tooling or machine specialists. The result is better product quality and greater participation by workers in efforts to improve your processes, your products, and your company as a whole. The first section of the book uses a simple, illustrated format to summarize many of the concepts and main features of poka-yoke. The second section shows 240 examples of poka-yoke improvements implemented in Japanese plants. The book: Organizes examples according to the broad issue or problem they address. Pinpoints how poka-yoke applies to specific devices, parts and products, categories of improvement methods, and processes. Provides sample improvement forms for you to sketch out your own ideas. Use Poka-yoke in study groups as a model for your improvement efforts. It may be your single most important step toward eliminating defects completely. (For an industrial engineering perspective on how source inspection and poka-yoke can work together to reduce defects to zero, see Shigeo Shingo's Zero Quality Control.)

Just-in-Time for Operators May 31 2022 Are you ready to implement a just-in-time (JIT) manufacturing program but need some help orienting employees to the power of JIT? Here is a concise and practical guide to introduce equipment operators, assembly workers, and other frontline employees to the basic concepts, techniques, and benefits of JIT practices. Like all Shop Floor Series books, *Just-in-Time for Operators* presents concepts and tools in simple and accessible language.

The book includes ample illustrations and examples to explain basic JIT concepts and some of the changes people may encounter in a JIT implementation. Key definitions Elimination of process waste Levelled production, kanban, and standard work U-shaped cells and automation JIT support techniques The JIT approach is simple and universal -- it works in companies all over the world. Educating employees ensures their full participation and allows them to share their experiences and ideas more effectively.

Kanban for the Shopfloor Feb 13 2021 Kanban is the name given to the inventory control card used in a pull system. The primary benefit of kanban is to reduce overproduction, the worst of the seven deadly wastes. A true kanban system produces exactly what is ordered, when it is ordered, and in the quantities ordered. It is essentially a dynamic work order that moves with the material. Each kanban identifies the part or subassembly unit and indicates where each one came from and where each is going. Used this way, kanban acts as a system of information that integrates your plant, connects all processes one to another, and connects the entire value stream to customer demand. Kanban for the Shopfloor provides a working manual for those seeking to implement this method of production control in any operation. It defines the various terms and methods employed in kanbans, and illustrates how when adhered to, kanban is an element of continuous improvement that ultimately leads to the ideal of one-piece flow." In addition to reducing the waste of overproduction, kanban will help your company increase flexibility to respond to customer demand, coordinate production of small lots and wide product variety, and simplify the procurement process. About the Shopfloor Series: Put proven improvement tools in the hands of your entire workforce! Progressive shopfloor improvement techniques are imperative for manufacturers who want to stay competitive and to achieve world class excellence. And it's the comprehensive education of all shopfloor workers

that ensures full participation and success when implementing new programs. The Shopfloor Series books make practical information accessible to everyone by presenting major concepts and tools in simple, clear language and at a reading level that has been adjusted for operators by skilled instructional designers. One main idea is presented every two to four pages so that the book can be picked up and put down easily. Each chapter begins with an overview and ends with a summary section. Helpful illustrations are used throughout. Other topics in the Shopfloor Series: Kanban, 5S, Quick Changeover, Mistake-Proofing, Just-in-Time, TPM, Cellular Manufacturing

Total Productive Maintenance Dec 02 2019 Completely revised and updated, this new edition of a classic reference focuses on the financial approach to the subjecta methodology that produces quantifiable results allowing a TPM program to be sustainable. And while clarifying what TPM is and what it is not, it clearly presents the economic value of TPM and shows how to calculate the Return on Investment (ROI) that a company can expect. It is the perfect resource for anyone who is considering implementing TPM or looking for ways of improving their current process.

Identifying Waste on the Shopfloor Aug 10 2020 Like all Shopfloor Series books, Identifying Waste on the Shopfloor presents concepts and tools in simple and accessible language. The book includes many illustrations and examples to explain basic concepts and some of the challenges that are encountered when looking for and eliminating waste. Identifying Waste on the Shopfloor is the ideal compliment to 5S, TPM, and other tools for building a lean manufacturing operation. Productivity's Shopfloor Series books offer a simple, cost-effective approach for building basic knowledge about key manufacturing improvement topics. Identifying Waste on the Shopfloor and all our Shopfloor Series books include innovative instructional features that are the signature of the series. The goal: to place powerful and proven improvement tools in the hands of your entire

workforce.

OEE for Operators Aug 22 2021 Overall Equipment Effectiveness (OEE) is a crucial measure in TPM that reports on how well equipment is running. It factors three elements ---the time the machine is actually running, the quantity of products the machine is turning out, and the quantity of good output - into a single combined score. Directly addressing those who are best positioned to track and improve the effectiveness of equipment, OEE for Operators defines basic concepts and then provides a systematic explanation of how OEE should be applied to maximize a piece of equipment's productivity and recognize when its efficiency is being compromised. Features

Quick Changeover for Operators Aug 29 2019 SMED (Single Minute Exchange of Die) or quick changeover technique is the single most powerful tool for JIT production. Changeover is the process of setting up a production line for a different process or product. Many plants take hours or even days to do a changeover-a major barrier to manufacturing flexibility. This learning package, based on Shigeo Shingo's SMED System, begins the education process of teaching frontline employees the techniques and approaches that turn hours of changeover time into minutes, even seconds!

We Are in This Dance Together Sep 30 2019 Changes in the global economy have real and contradictory outcomes for the everyday lives of women workers. In 2001, Nancy Plankey-Videla had a rare opportunity to witness these effects firsthand. Having secured access to one of Latin America's top producers of high-end men's suits in Mexico for participant-observer research, she labored as a machine operator for nine months on a shop floor made up, mostly, of women. The firm had recently transformed itself from traditional assembly techniques, to lean, cutting-edge, Japanese-style production methods. Lured initially into the firm by way of increased wages and benefits, workers had helped shoulder the company's increasing debts. When the company's plan for

successful expansion went awry and it reneged on promises it had made to the workforce, women workers responded by walking out on strike. Building upon in-depth interviews with over sixty workers, managers, and policy makers, Plankey-Videla documents and analyzes events leading up to the female-led factory strike and its aftermath—including harassment from managers, corrupt union officials and labor authorities, and violent governor-sanctioned police actions. *We Are in This Dance Together* illustrates how the women's shared identity as workers and mothers—deserving of dignity, respect, and a living wage—became the basis for radicalization and led to further civic organizing against the state, the company, and the corrupt union to demand justice.

Quick Changeover for Operators Nov 24 2021 The powerful knowledge contained in this book can make your workplace more productive, your job simpler, and everything more satisfying. It's about how to do equipment or product changeovers in record time--often in less than 10 minutes. The method you'll learn here is called SMED, short for "Single-Minute Exchange of Die" (the "single" here means a single-digit number of minutes). Developed from a longer book, *A Revolution in Manufacturing: The SMED System*(cat no. PP9903), written for managers, this book is written for frontline production and assembly associates. It presents an overview of the reasons why SMED is important for companies and employees, sets out the three basic stages of SMED, and then devotes a separate chapter to each of these stages. The first chapter of the book is like an "owner's manual" that tells you how to get the most out of your reading time by using the margin assists, summaries, and other features of the book to help pull out exactly what you need. One of the most effective ways to use this book is to read and discuss it with other employees. The authors planned the book so that it can be used this way, organizing the book into chunks of information that can be covered in a series of short sessions. Each chapter includes reflection questions to stimulate group discussion. A

Learning Package is also available (catalog no.PP7126), which includes a leader's guide, overhead transparencies to summarize major points, and color slides showing examples of SMED applications in different kinds of companies. s of the book to help pull out exactly what you need. One of the most effective ways to use this book is to read and discuss it with other employees. The authors planned the book so that it can be used this way, organizing the book into chunks of information that can be covered in a series of short sessions. Each chapter includes reflection questions to stimulate group discussion. A Learning Package is also available (catalog no.PP7126), which includes a leader's guide, overhead transparencies to summarize major points, and color slides showing examples of SMED applications in different kinds of companies.

Just-In-Time for Operators Nov 05 2022 Are you ready to implement a just-in-time (JIT) manufacturing program but need some help orienting employees to the power of JIT? Here is a concise and practical guide to introduce equipment operators, assembly workers, and other frontline employees to the basic concepts, techniques, and benefits of JIT practices. Like all Shop Floor Series books, Just-in-Time for Operators presents concepts and tools in simple and accessible language. The book includes ample illustrations and examples to explain basic JIT concepts and some of the changes people may encounter in a JIT implementation. Key definitions Elimination of process waste Leveled production, kanban, and standard work U-shaped cells and automation JIT support techniques The JIT approach is simple and universal -- it works in companies all over the world. Educating employees ensures their full participation and allows them to share their experiences and ideas more effectively.

TPM for Every Operator Oct 04 2022 TPM for Every Operator covers the information that needs to be communicated to operators when facilitating a company-wide TPM initiative. It covers the main

aspects of TPM, introducing frontline workers to this important manufacturing strategy that encourages them to participate in and even initiate routine maintenance that can help extend machine life and prevent stoppages. Based on actual implementations, this book addresses the challenges which TPM often raises for operators. Concise and accessible, it can be used as part of an extensive TPM training program, especially when paired with the TPM Guide for Workshop Leaders. [The Digital Shopfloor- Industrial Automation in the Industry 4.0 Era](#) Jun 07 2020 In today's competitive global environment, manufacturers are offered with unprecedented opportunities to build hyper-efficient and highly flexible plants, towards meeting variable market demand, while at the same time supporting new production models such as make-to-order (MTO), configure-to-order (CTO) and engineer-to-order (ETO). During the last couple of years, the digital transformation of industrial processes is propelled by the emergence and rise of the fourth industrial revolution (Industry4.0). The latter is based on the extensive deployment of Cyber-Physical Production Systems (CPPS) and Industrial Internet of Things (IIoT) technologies in the manufacturing shopfloor, as well as on the seamless and timely exchange of digital information across supply chain participants. The benefits of Industry 4.0 have been already proven in the scope of pilot and production deployments in a number of different use cases including flexibility in automation, predictive maintenance, zero defect manufacturing and more. Despite early implementations and proof-of-concepts, CPPS/IIoT deployments are still in their infancy for a number of reasons, including: • Manufacturers' poor awareness about digital manufacturing solutions and their business value potential, as well as the lack of relevant internal CPPS/IIoT knowledge. • The high costs that are associated with the deployment, maintenance and operation of CPPS systems in the manufacturing shopfloors, which are particularly challenging in the case of SME (Small Medium Enterprises) manufacturers that lack

the equity capital needed to invest in Industry 4.0. • The time needed to implement CPPS/IIoT and the lack of a smooth and proven migration path from existing OT solutions. • The uncertainty over the business benefits and impacts of IIoT and CPPS technologies, including the lack of proven methods for the techno-economic evaluation of Industry4.0 systems. • Manufacturers' increased reliance on external integrators, consultants and vendors. • The absence of a well-developed value chain needed to sustain the acceptance of these new technologies for digital automation. In order to alleviate these challenges, three European Commission funded projects (namely H2020 FAR-EDGE (<http://www.far-edge.eu/>), H2020 DAEDALUS (<http://daedalus.iec61499.eu>) and H2020 AUTOWARE (<http://www.autoware-eu.org/>)) have recently joined forces towards a "Digital Shopfloor Alliance". The Alliance aims at providing leading edge and standards based digital automation solutions, along with guidelines and blueprints for their effective deployment, validation and evaluation. The present book provides a comprehensive description of some of the most representative solutions that offered by these three projects, along with the ways these solutions can be combined in order to achieve multiplier effects and maximize the benefits of their use. The presented solutions include standards-based digital automation solutions, following different deployment paradigms, such as cloud and edge computing systems. Moreover, they also comprise a rich set of digital simulation solutions, which are explored in conjunction with the H2020 MAYA project (<http://www.maya-euproject.com/>). The latter facilitate the testing and evaluation of what-if scenarios at low risk and cost, but also without disrupting shopfloor operations. As already outlined, beyond leading edge scientific and technological development solutions, the book comprises a rich set of complementary assets that are indispensable to the successful adoption of IIoT/CPPS in the shopfloor. The book is structured in three parts as follows: • The first part of the book is devoted to digital automation platforms.

Following an introduction to Industry 4.0 in general and digital automation platforms in particular, this part presents the digital automation platforms of the FAR-EDGE, AUTOWARE and DAEDALUS projects. • The second part of the book focuses on the presentation of digital simulation and digital twins' functionalities. These include information about the models that underpin digital twins, as well as the simulators that enable experimentation with these processes over these digital models. • The third part of the book provides information about complementary assets and supporting services that boost the adoption of digital automation functionalities in the Industry4.0 era. Training services, migration services and ecosystem building services are discussed based on the results of the three projects of the Digital Shopfloor Alliance. The target audience of the book includes: • Researchers in the areas of Digital Manufacturing and more specifically in the areas of digital automation and simulation, who wish to be updated about latest Industry4.0 developments in these areas. • Manufacturers, with an interest in the next generation of digital automation solutions based on Cyber-Physical systems. • Practitioners and providers of Industrial IoT solutions, which are interested in the implementation of use cases in automation, simulation and supply chain management. • Managers wishing to understand technologies and solutions that underpin Industry4.0, along with representative applications in the shopfloor and across the supply chain.

Implementing Standardized Work Jul 21 2021 Standardized Work refers to the process of finding and applying the best operational methods that will lead to cost reduction, better product quality, and increased operator safety. This book, the latest in a series dedicated to Standardized Work, focuses on operator training and auditing. It describes the methods and tools used to train operators and then check their work against the standard defined in Standardized Work forms. It also discusses how to introduce these tools in the most effective way. Following in the tradition of the

other books in this series, *Implementing Standardized Work: Training and Auditing* covers essential knowledge using a compelling story format. It follows Thomas, a young, high-potential plant manager in an industrial group, as he deploys Standardized Work to turn around a plant that is losing money. This latest installment recounts the next steps in his process—preparing for training, conducting the training itself, and introducing an auditing process to measure its success. The book explains how to structure and present the newly improved operational methods to facilitate the training. It introduces the Job Breakdown Sheet, which gives operators the "why" for actions and provides illustrations covering key points. The book presents a customized version of the training industry's four-step training method that provides simple actionable tools that will help you perform quick and effective operator training. It also provides a number of key tips to ensure the successful establishment of auditing processes. *Implementing Standardized Work: Training and Auditing* provides you with the right tools and the right processes to train and sustain Standardized Work. Everyone's role, from the plant manager to the operator, is described and illustrated by simple examples in this book. Covering the essentials of training and auditing in a streamlined, easy-to-understand format, this book can have you applying its concepts in just one day.

[Shop Floor Control Systems](#) Jun 27 2019 In recent years there has been a tremendous upsurge of interest in manufacturing systems design and analysis. Large industrial companies have realized that their manufacturing facilities can be a source of tremendous opportunity if managed well or a huge corporate liability if managed poorly. In particular industrial managers have realized the potential of well designed and installed production planning and control systems. Manufacturing, in an environment of short product life cycles and increasing product diversity, looks to techniques such as manufacturing resource planning, Just In Time (JIT) and total quality control among others

to meet the challenge. Customers are demanding high quality products and very fast turn around on orders. Manufacturing personnel are aware of the lead time from receipt of order to delivery of completed orders at the customer's premises. It is clear that this production lead time is, for the majority of manufacturing firms, greatly in excess of the actual processing or manufacturing time. There are many reasons for this, among them poor coordination between the sales and manufacturing function. Some are within the control of the manufacturing function. Others are not. Total Productive Maintenance Apr 05 2020 Reduce or eliminate costly downtime Short on theory and long on practice, this book provides examples and case studies, designed to provide maintenance engineers and supervisors with a framework for operational strategies and day-to-day management and training techniques that will keep their equipment running at top efficiency.

Focused Equipment Improvement for TPM Teams Jul 01 2022 As distinguished from autonomous maintenance, where the main goal is to restore basic conditions of cleanliness, lubrication, and proper fastening to prevent accelerated deterioration, FEI looks at specific losses or design weaknesses that everyone previously thought they just had to live with. Once your TPM operator teams are progressing with their daily autonomous maintenance activities, you will want to take the next advanced step in TPM training with this book. Key Features: a simple and powerful introduction to P-M Analysis hints for unraveling breakdown analysis numerous ideas for simplifying and shortening setups ideas for eliminating minor stoppages and speed losses basic concepts of building quality into processing real-life examples from a leading Japanese tool company Educate and empower all your workers to support your TPM improvement activities with

Autonomous Maintenance in Seven Steps Apr 29 2022 Autonomous maintenance is an especially important pillar of Total Productive Maintenance (TPM) because it enlists the intelligence and skills

of the people who are most familiar with factory machines-- equipment operators. Operators learn the maintenance skills they need to know through a seven-step autonomous maintenance program. Most companies in the West stop after implementing the first few steps and never realize the full benefits of autonomous maintenance. This book contains comprehensive coverage of all seven steps-- not just the first three or four. It includes: An overview of autonomous maintenance features and checklists for step audits to certify team achievement at each AM step. TPM basics such as the six big losses, overall equipment effectiveness (OEE), causes of losses, and six major TPM activities. An implementation plan for TPM and five countermeasures for achieving zero breakdowns. Useful guidelines and case studies in applying AM to manual work such as assembly, inspection, and material handling. Integrates examples from Toyota, Asai Glass, Bridgestone, Hitachi, and other top companies. By treating machines as partners and taking responsibility for them, you get machines that you can rely on and help maintain an energized and responsive workplace. For companies that are serious about taking autonomous maintenance beyond mere cleaning programs, this is an essential sourcebook and implementation support.

Information Technology for Manufacturing May 07 2020 This book describes a vision of manufacturing in the twenty-first century that maximizes efficiencies and improvements by exploiting the full power of information and provides a research agenda for information technology and manufacturing that is necessary for success in achieving such a vision. Research on information technology to support product and process design, shop-floor operations, and flexible manufacturing is described. Roles for virtual manufacturing and the information infrastructure are also addressed. A final chapter is devoted to nontechnical research issues.

Total Productive Maintenance Oct 31 2019 A systematic approach to improving production and

quality systems, total productive maintenance (TPM) involves all employees through a moderate investment in maintenance. Therefore, a successful TPM implementation requires support of all employees from C-level on down. Total Productive Maintenance: Strategies and Implementation Guide highlights the

Manufacturing Consent Nov 12 2020 Since the 1930s, industrial sociologists have tried to answer the question, Why do workers not work harder? Michael Burawoy spent ten months as a machine operator in a Chicago factory trying to answer different but equally important questions: Why do workers work as hard as they do? Why do workers routinely consent to their own exploitation? Manufacturing Consent, the result of Burawoy's research, combines rich ethnographical description with an original Marxist theory of the capitalist labor process. Manufacturing Consent is unique among studies of this kind because Burawoy has been able to analyze his own experiences in relation to those of Donald Roy, who studied the same factory thirty years earlier. Burawoy traces the technical, political, and ideological changes in factory life to the transformations of the market relations of the plant (it is now part of a multinational corporation) and to broader movements, since World War II, in industrial relations.

Oee for Operators Sep 03 2022 Overall Equipment Effectiveness (OEE) is a crucial measure in TPM that reports on how well equipment is running. It factors three elements ---the time the machine is actually running, the quantity of products the machine is turning out, and the quantity of good output - into a single combined score. Directly addressing those who are best positioned to track and improve the effectiveness of equipment, OEE for Operators defines basic concepts and then provides a systematic explanation of how OEE should be applied to maximize a piece of equipment's productivity and recognize when its efficiency is being compromised. Features

Standard Work for the Shopfloor Apr 17 2021 Standard work is an agreed upon set of work procedures that effectively combines people, materials, and machines to maintain quality, efficiency, safety, and predictability. Work is described precisely in terms of cycle time, work in process, sequence, time, layout, and the inventory needed to conduct the activity. Standard work begins as an improvement baseline and evolves into a reliable method. It establishes the best activities and sequence steps to maximize performance and minimize waste. In this book you will learn about: The characteristics of standards Key benefits and applications of standardization Standard work concepts and calculations Standard work steps and documentation Using standard work manuals, charts, and worksheets Cell staffing (line balancing and full work) Productivity's Shopfloor Series books offer a simple, cost-effective approach for building basic knowledge about key manufacturing improvement topics. Like all our Shopfloor Series books, Standard Work for the Shopfloor includes innovative instructional features that are the signature of the Shopfloor Series. The goal: to place powerful and proven improvement tools such as pull production techniques in the hands of your entire workforce.

Kanban for the Shopfloor Feb 25 2022 Kanban is the name given to the inventory control card used in a pull system. The primary benefit of kanban is to reduce overproduction, the worst of the seven deadly wastes. A true kanban system produces exactly what is ordered, when it is ordered, and in the quantities ordered. It is essentially a dynamic work order that moves with the material. Each kanban identifies the part or subassembly unit and indicates where each one came from and where each is going. Used this way, kanban acts as a system of information that integrates your plant, connects all processes one to another, and connects the entire value stream to customer demand. Kanban for the Shopfloor provides a working manual for those seeking to implement this method of

production control in any operation. It defines the various terms and methods employed in kanbans, and illustrates how when adhered to, kanban is an element of continuous improvement that ultimately leads to the ideal of one-piece flow." In addition to reducing the waste of overproduction, kanban will help your company increase flexibility to respond to customer demand, coordinate production of small lots and wide product variety, and simplify the procurement process. About the Shopfloor Series: Put proven improvement tools in the hands of your entire workforce! Progressive shopfloor improvement techniques are imperative for manufacturers who want to stay competitive and to achieve world class excellence. And it's the comprehensive education of all shopfloor workers that ensures full participation and success when implementing new programs. The Shopfloor Series books make practical information accessible to everyone by presenting major concepts and tools in simple, clear language and at a reading level that has been adjusted for operators by skilled instructional designers. One main idea is presented every two to four pages so that the book can be picked up and put down easily. Each chapter begins with an overview and ends with a summary section. Helpful illustrations are used throughout. Other topics in the Shopfloor Series: Kanban, 5S, Quick Changeover, Mistake-Proofing, Just-in-Time, TPM, Cellular Manufacturing

Mistake-Proofing for Operators Sep 22 2021 The Zero Quality Control System (ZQC) is a mistake-proofing approach that prevents defects by monitoring processing conditions at the source and correcting errors that cause defects. Since it is human nature to make mistakes, ZQC does not blame people for errors, but instead finds ways to keep errors from becoming defects. In this breakthrough approach, mistake-proofing devices called poka-yoke are used to check and give feedback about each product or operation in the process, not just a sample. This book introduces operators and assembly workers to the basic methodology of ZQC in an easy-to-read format that covers all aspects

of this important manufacturing improvement strategy. Mistake-Proofing for Operators includes the instructional features that are the signature of the Shopfloor Series. In this series Productivity Press has taken the lead in adult education by teaming with instructional designers to develop complete programs for frontline learning. The goal: to place powerful and proven improvement tools such as ZQC and mistake-proofing in the hands of your company's entire workforce. Winner of the 1990 Shingo Prize for Excellence in Manufacturing, Mistake-Proofing for Operators is based on Zero Quality Control: Source Inspection and the Poka-Yoke System by Shigeo Shingo

Introduction to TPM Feb 02 2020 TPM (Total Productive Maintenance) is an innovative approach to maintenance. This book introduces TPM to managers and outlines a three-year program for systematic TPM development and implementation.

Tpm for Supervisors Jan 15 2021 The benefits of advanced manufacturing methods can't be realized until they're practiced consistently and proficiently by your entire workforce. Here's a simple, low-cost way to get everyone on board quickly. This small book presents the basic methodology of TPM and focuses on hands-on activities for shopfloor teams to maximize equipment effectiveness. Feedback from our customers indicates that this book has been used primarily by shopfloor supervisors to lead operator teams in implementing TPM programs. For the most cost effective on-site education, every supervisor and team leader in your operation should read this book. TPM for Supervisors offers an overview of the basic features of TPM as well as the implementation process in an easy-to-follow presentation. It focuses on the important role of supervisors in maximizing equipment effectiveness. For the most cost-effective on-site education, every supervisor in your operation should read this book. It presents the basic methodology of TPM in clear, accessible language and will help supervisors implement TPM improvement activities on the

shop floor. It's the best way to ensure a companywide understanding of TPM.