

Identifying Waste On The Shopfloor The Shopfloor Series

This book constitutes the refereed proceedings of the 13th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2016, held in Columbia, SC, USA, in July 2016. 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 4.0; metrics, standards and regulation; and product, service and systems.

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

Although office and administrative activities are usually 60 percent of the production costs in most manufacturing organizations, these areas often get excluded during lean initiatives. To achieve lean, office activities must fully support shop floor manufacturing operations to eliminate waste. The adoption of 5S throughout all office and administrative functions is the first step to increase efficiency. In 5S for the Office: Organizing the Workplace to Eliminate Waste, Tom Fabrizio and Don Tapping bring the concepts of the 5S System -- effective tools for the elimination of waste on the shop floor -- into the office environment. The activities at the heart of 5S for the Office (organizing, ordering, cleaning, standardizing, and sustaining all of these) are completely logical. They are the basic rules for managing any effective workplace. However, it is the systematic method with which the 5S system approaches these activities that makes it unique. This book is a blueprint for building a Lean foundation for your office Readers of this book can immediately apply the concepts of 5S to their office and administrative activities, resulting in the elimination of waste, reduced production costs, and increased profits. 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.

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

Lean for the Information Age

5S for the Office

True Kaizen

Recent Trends in Industrial and Production Engineering

Banish Waste And Create Wealth In Your Corporation

3rd Indo-German Conference on Sustainability in Engineering

Lean Kaizen

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 autonomation 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.

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.

The philosophy of kaizen, which simply means continuous improvement, needs to be 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.

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* introduces

Writing Standardized Work Forms

Oee for Operators

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

The Shingo System of Continuous Improvement

5S Made Easy

Identifying Waste on the Shopfloor Poster

Mas alla de la produccion a gran escala

Identifies the most prominent forms of waste in factories, suggests how to combine and simplify operations, and provides practical examples

A hands-on guide to adapting Lean principles and the Toyota Production System to high-mix/low-volume environments, Lean Production for the Small Company uses charts, pictures, and easy-to-understand language to describe the methods needed to improve processes and eliminate waste. It walks readers through the correct order of implementation and desc

Accessible to the Lean novice and shop floor employee, The Basics of Line Balancing and JIT Kitting explores line balancing and the pre-assembly of components into a finished product in a just-in-time fashion (JIT Kitting). It explains how to use time studies, develop yamazumi charts, discover and eliminate waste, balance your line, and create new

Every lean practitioner occasionally wishes for a simple, fun, and quick-read introduction to lean thinking to give acquaintances, associates, and family members -- even to our kids. If lean thinking often entails unlearning a plethora of bad habits, wouldn't it be better if we learned better thinking -- and habits -- from the beginning? Everything I Know About Lean I Learned in First Grade is just that sort of book. It brings lean back to its original simplicity by showing how lean is alive in a first grade classroom. The book connects common lean tools to the broader lean journey, shows how to identify and eliminate waste, and aids the reader in seeing lean for what it truly is: a way to create a learning and problem-solving culture. Written to educate the entire organization on the fundamentals of lean thinking, this is the perfect source to engage all team members at all levels of an organization. Originally self-published in 2008, LEI is proud to re-issue this book and make it available to the broader lean community.

Focused Equipment Improvement for TPM Teams

A Process of Ongoing Improvement

TPM Team Guide

The Basics of Line Balancing and JIT Kitting

A Simplified Approach to Process Improvements

Standard Work for the Shopfloor

The Goal

When it comes to making your business more profitable and successful, don't look to re-engineering for answers. A better way is to apply the concept of kaizen, which mean making simple, common-sense improvements and refinements to critical business processes. The result: greater productivity, quality, and profits achieved with minimal cost, time, and effort invested. In this book, you discover how to maximize the results of kaizen by applying it to gemba--business processes involved in the manufacture of products and the rendering of services--the areas of your business where, as the author puts it, the "real action" takes place.

If you currently employ knowledge workers who do most of their work on computers or with computers, access the Internet, utilize internal and external databases, use e-mail or other new messaging technology, then this book is for you. Quite simply, this handbook is for any organization with a lot of Web DNA that wishes to cut costs, improve performance, and stay perpetually competitive. It is for change agents or managers within those organizations who work with information and want to leverage the latest crop of tool sets to deliver on the promise of Lean for the modern, information-rich office. ... packed with new ideas ... breaks new ground in so many directions — John Bicheno, Director, Lean Enterprise Research Centre, Cardiff Business School ... excellent ... on several levels teaches us how to visualize the depth of hidden wastes in our complex information flows and the large opportunity for improvement that this suggests. — Keith Russell, PhD, Global Continuous Improvement Leader R&D, AstraZeneca Pharmaceuticals Very interesting view on operational excellence, helpful to readers without a background in this area of expertise. — Bert Nordberg, President and CEO. Sony Ericsson Congratulations to all the readers holding this book! ... These Lean ideas must be an integral part of the daily operations of your business. I am going to get each and every one of my management team a copy of this brilliant book at the start for our own Lean journey. — Lennart Käll, CEO, Wasa Kredit It's one thing to develop a concept. It's another to make it sing. This is the hymnal. — Dr. Don V. Steward, CEO Problematics, Professor Emeritus, Sacramento State University, inventor of DSM ... a must read for CIOs everywhere." — Julian Amey, Principal Fellow, Warwick University

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

Shingo, whose work at Toyota provided the foundation for JIT, teaches how to implement non-stock production in your JIT manufacturing operations. The culmination of his extensive writings on efficient production management and continuous improvement, this book is an essential companion volume to his other landmark books on key elements of JIT, including SMED and poka-yoke. It includes: Fundamental flaws in European and American production philosophies. Basic concepts for improving production systems. The "scientific thinking mechanism" -- a new approach to improvement. Implementing a production method in an age of authorized stock production. Development of production functions in the age of non-stock production. Significance of the different production systems.

IFIP WG 5.7 International Conference, APMS 2021, Nantes, France, September 5–9, 2021, Proceedings, Part I

A Zero-Waste Environment with Process Automation

Kaizen for the Shop Floor

Advances in Production Management Systems. Artificial Intelligence for Sustainable and Resilient Production Systems

Organizing the Workplace to Eliminate Waste

The Sayings of Shigeo Shingo

What does it take to manage an organization to success? No matter what industry you are in, an organization is primarily a group of people. This book focuses on that ever-important human element. In the rush to get 'lean', many organizations focus solely on tools for increasing productivity, but where do these tools come from? In this book, Collin McLoughlin and Toshihiko Miura look back on their decades of international consulting experience to examine how organizations around the world have transformed on a cultural level by respecting the people who work within them and leveraging their creativity to solve problems. As our workforce becomes more knowledgeable, skillful, and more perceptive of their needs and wants as employees, the ability to reach the true potential of an organization becomes more and more difficult. Managers must look at each individual element of an equation like this in order to fully understand how to achieve an answer. They must begin to answer more focused questions, such as: 1. How productive is the existing work climate and culture? 2. How do employees, as individuals, navigate the existing work climate? (How do they deal with day-today issues with each other?) 3. Where and how are individuals and their work processes assessed? 4. What obstacles do employees face every day, and are they empowered to fix these obstacles? 5. What role does leadership play at each level of the organization? (Looking at the organization in layers of management.) To address these challenges, this book focuses on three main aspects of leadership and management: 1. Addressing and Improving the Perspective of Management -- The ideas presented in this book are not limited to a certain industry or field of work, but can be applied in any setting because they speak to a universal human element. 2. Exploring and Improving Work Climate -- Organizations are social entities, operating within their own controlled environment. This book will explore the factors that contribute to, and encourage, a positive work climate. 3. Observing and Eliminating Wasteful Work Processes -- Observing wasteful activities and work processes requires a refined

perspective. The case studies presented illustrate the How and Why to help refine expertise. This will also lead to the joy and benefits

This poster is designed to explain the concept of identifying shop floor waste in a simple, brightly illustrated way. This concept is also referred to as the 5M+QS or 5MQS of waste identification.

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.

Here is a great introduction to the remarkable mind of Shigeo Shingo, indisputably one of the great forces in manufacturing. In this soft cover book, Dr. Shingo describes his approach to manufacturing improvements, developed and refined over the course of a brilliant career. He called it the Scientific Thinking Mechanism (STM). The Sayings of Shigeo Shingo leads you through the five stages of STM, with appropriate examples taken from notes Dr. Shingo collected during his consulting trips to American and Japanese plants. It shows how, in many cases, the most brilliant ideas are often so simple they're overlooked. Or they're dismissed because they seem ridiculous: - A Japanese plant, after first rejecting the idea as too silly, finds that unhulled rice is ideal for smoothing the rough surfaces on pressure-formed ebonite switches - Granville-Phillips, in Boulder, Colorado, reduced defects to zero in one process after Dr. Shingo suggested illuminating circuit boards from below to reduce errors involved in the insertion of diodes and resistors The Sayings of Shigeo Shingo is must reading for plant managers and engineers. It formalizes the powerful and creative way of thinking that Shingo himself used time and again to overcome problems that seemed virtually insurmountable.

The Smed System

Pull Production for the Shopfloor

Management's Role in Improving Work Climate and Culture

Cut Costs, Reduce Waste, and Lower Your Overhead

Select Proceedings of ICAST 2020

Collected Practices and Cases

The Lean Six Sigma Guide to Doing More With Less

Si usted quiere entender como se origino el sistema de produccion Toyota y por que tiene exito, debe leer este libro. Aqui encontrara una introduccion 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 fabricacion; sino tambien sobre como dirigir exitosamente una empresa.

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 Seriesbooks offer a simple, cost-effective approach for building basic knowledge about key manufacturing improvement topics. Like all our Shopfloor Seriesbooks, 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. Productivity's Shopfloor Seriesbooks offer a simple, cost-effective approach for building basic knowledge about key manufacturing improvement topics. Like all our Shopfloor Seriesbooks, 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.

For decades, 5S practitioners have struggled with exactly how to implement and sustain a 5S program in their workplaces. While there are many books available on the organization methods suggested by 5S, few provide easy-to-understand, step-by-step guidance on how to set up and sustain successful 5S implementations. 5S Made Easy fills this need. Written by an expert whose focus for the last decade has been nothing but 5S, the book supplies in-depth guidance on how to implement and sustain each of the 5S pillars—sort, set in order, shine, standardize,

and sustain. The book uses an easy-to-follow format that was designed for use during 5S events. It provides color images of real-world 5S solutions, including before and after pictures from the field. It also supplies readers with online access to all of the forms and documents needed for an effective 5S program. All the forms and documents are provided in an easily editable format to fit any operation.

"The documented benchmarks for success and the many examples help explicate the complexities for the reader. The book is organized and written so that it will be useful as an introduction to the field and also as a reference when special challenges arise for the practicing manager." -- DR. JOHN J. COYLE, Professor Emeritus of Logistics and Supply Chain Management, Department of Supply Chain and Information Systems, Smeal College of Business, Pennsylvania State University "The book is a must-read for all supply chain managers seeking to drive down costs and improve profits and must be read before any investment is made in your supply chain. Get copies for your controller and all senior managers...this book lays it all out." -- DR. RICHARD LANCIONI, Chair, Marketing & Supply Chain Management, Fox School of Business, Temple University Expert Strategies for Improving Supply Chain and Logistics Performance Using Lean This practical guide reveals how to identify and eliminate waste in your organization's supply chain and logistics function. Lean Supply Chain and Logistics Management provides explanations of both basic and advanced Lean tools, as well as specific Lean implementation opportunities. The book then describes a Lean implementation methodology with critical success factors. Real-world examples and case studies demonstrate how to effectively use this powerful strategy to realize significant, long-term improvements and bottom-line savings. COVERAGE INCLUDES: * Using Lean to energize your supply chain * The eight wastes * Lean opportunities and JIT in supply chain and logistics * Lean tools and warehouse * Global lean supply chain and logistics * Lean opportunity assessment, value stream mapping, and Kaizen event management * Best-in-class use of technology with Lean * Metrics and measurement * Education and training Valuable training slides are available for download.

Quick Changeover for Operators

Gemba Kaizen: A Commonsense, Low-Cost Approach to Management

Product Lifecycle Management for Digital Transformation of Industries

MANUFACTURING PROCESSES 4-5. (PRODUCT ID 23994334).

Techniques for Continuous Improvement

Value Stream Mapping to Add Value and Eliminate Muda

Non-Stock Production

Alex Rogo is a harried plant manager working ever more desperately to try and improve performance. His factory is rapidly heading for disaster. So is his marriage. He has ninety days to save his plant - or it will be closed by corporate HQ, with hundreds of job losses. It takes a chance meeting with a colleague from student days - Jonah - to help him break out of conventional ways of thinking to see what needs to be done. Described by Fortune as a 'guru to industry' and by Businessweek as a 'genius', Eliyahu M. Goldratt was an internationally recognized leader in the development of new business management concepts and systems. This 20th anniversary edition includes a series of detailed case study interviews by David Whitford, Editor at Large, Fortune Small Business, which explore how organizations around the world have been transformed by Eli Goldratt's ideas. The story of Alex's fight to save his plant contains a serious message for all managers in industry and explains the ideas which underline the Theory of Constraints (TOC) developed by Eli Goldratt. Written in a fast-paced thriller style, The Goal is the gripping novel which is transforming management thinking throughout the Western world. It is a book to recommend to your friends in industry - even to your bosses - but not to your competitors!

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

Identifying Waste on the Shopfloor Productivity Press

While it is a given that most Lean companies adopt methods to standardize cyclical activities, they often fail to apply the same rigor to noncyclical work, believing that it cannot be measured. Standardized Work for Noncyclical Processes cuts to the core of this mistaken belief and shows you how to measure nonrepeating job processes and eliminate w

Standardized Work for Noncyclical Processes

New Manufacturing Challenge

El Sistema de Produccion Toyota

The Lean Office

Overall Equipment Effectiveness

Lean Thinking

Identifying Waste on the Shopfloor

The five-volume set IFIP AICT 630, 631, 632, 633, and 634 constitutes the refereed proceedings of the International IFIP WG 5.7 Conference on Advances in Production Management Systems, APMS 2021, held in Nantes, France, in September 2021. The 378 papers presented were carefully reviewed and selected from 529 submissions. They discuss artificial intelligence techniques, decision aid and new and renewed paradigms for sustainable and resilient production systems at four-wall factory and value chain levels. The papers are organized in the following topical sections: Part I: artificial intelligence based optimization techniques for demand-driven manufacturing; hybrid approaches for production planning and scheduling; intelligent systems for manufacturing planning and control in the industry 4.0; learning and robust decision support systems for agile manufacturing environments; low-code and model-driven engineering for production system; meta-heuristics and optimization techniques for energy-oriented manufacturing systems; metaheuristics for production systems; modern analytics and new AI-based smart techniques for replenishment and production planning under uncertainty; system identification for manufacturing control applications; and the future of lean thinking and practice Part II: digital transformation of SME manufacturers: the crucial role of standard; digital transformations towards supply chain resiliency; engineering of smart-product-service-systems of the future; lean and Six Sigma in services healthcare; new trends and challenges in reconfigurable, flexible or agile production system; production management in food supply chains; and sustainability in production planning and lot-sizing Part III: autonomous robots in delivery logistics; digital transformation approaches in production management; finance-driven supply chain; gastronomic service system design; modern scheduling and applications in industry 4.0; recent advances in sustainable manufacturing; regular session: green production and circularity concepts; regular session: improvement models and methods for green and innovative systems; regular session: supply chain and routing management; regular session: robotics and human aspects; regular session: classification and data management methods; smart supply chain and production in society 5.0 era; and supply chain risk management under coronavirus Part IV: AI for resilience in global supply chain networks in the context of pandemic disruptions; blockchain in the operations and supply chain management; data-based services as key enablers for smart products, manufacturing and assembly; data-driven methods for supply chain optimization; digital twins based on systems engineering and semantic modeling; digital twins in companies first developments and future challenges; human-centered artificial intelligence in smart manufacturing for the operator 4.0; operations management in engineer-to-order manufacturing; product and asset life cycle management for smart and sustainable manufacturing systems; robotics technologies for control, smart manufacturing and logistics; serious games analytics: improving games and learning support; smart and sustainable production and supply chains; smart methods and techniques for sustainable supply chain management; the new digital lean manufacturing paradigm; and the role of emerging technologies in disaster relief operations: lessons from COVID-19 Part V: data-driven platforms and applications in production and logistics: digital twins and AI for sustainability; regular session: new approaches for routing problem solving; regular session: improvement of design and operation of manufacturing systems; regular session: crossdock and transportation issues; regular session: maintenance improvement and lifecycle management; regular session: additive manufacturing and mass customization; regular session: frameworks and conceptual modelling for systems and services efficiency; regular session: optimization of production and transportation systems; regular session: optimization of supply chain agility and reconfigurability; regular session: advanced modelling approaches; regular session: simulation and optimization of systems performances; regular session: AI-based approaches for quality and performance improvement of production systems; and regular session: risk and performance management of supply chains *The conference was held online.*

The Lean Office: Collected Practices and Cases is a compilation of articles previously published in the Productivity Press newsletter, Lean Manufacturing Advisor. These articles discuss lean implementations in non-manufacturing operations, from design to processing invoices to customer service. Most articles are written in the form of case studies. Highlights include— Practical, in-depth description of lean implementation, written in a conversational, easy-to-read style A large quantity of case studies unavailable from any other single source Responds to your desire for real-world lean office information

This book presents the select proceedings of the International Conference on Advances in Sustainable Technologies (ICAST 2020), organized by Lovely Professional University, Punjab, India. This book caters to the industrial and production engineering aspects. It covers the industrial and production engineering areas such as sustainable manufacturing systems, decision sciences, supply chain management, Just in Time (JIT), logistics and supply chain management, rapid prototyping and reverse engineering, quality control and reliability, six sigma, smart manufacturing, time and motion study, six sigma, ergonomics, operations management, manufacturing management, metrology, manufacturing process optimization, machining and machine tools, casting, welding, and forming. This book will be useful for industry professionals and researchers working in the area of mechanical engineering, especially

industrial and production engineering.

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.

Far from the Factory

a lean material-handling guide for operations, production-control, and engineering professionals

Enhancing Future Skills and Entrepreneurship

Everything I Know About Lean I Learned in First Grade

Lean Supply Chain and Logistics Management

Learning to See

Just-in-Time for Operators

Praise for The Lean Six Sigma guide to Doing More with Less "At Frito Lay, we have applied many of the concepts and tools in this book, and we are realizing a five to seven times return on our annual Lean Six Sigma investment." –Tony Mattei, Lean Six Sigma Director, Frito Lay "Ecolab has experienced a sustainable, competitive advantage through Lean Six Sigma. The principles in this book are helping us drive greater value for our shareholders, better service for our customers, and talent development opportunities for our associates." –Jeffrey E. Burt, Vice President and Global Deployment Leader, Lean Six Sigma, Ecolab "This book gives excellent insights into Lean Six Sigma and its strong impact within different industries. We used Lean Six Sigma in numerous process improvement projects, which, in turn, helped to create momentum and set up a process improvement culture. Amid a challenging economic environment, we are accelerating this initiative globally." –Satheesh Mahadevan, Directeur des Processus, Société Générale "Our Lean Six Sigma deployment of the concepts and tools described in this book is transforming our business—with tangible benefits for our employees, customers, suppliers, and shareholders." –Jeffrey Herzfeld, Sr. Vice President and General Manager, Teva Pharmaceuticals USA "We have deployed the holistic Lean Six Sigma strategy described by Mark George across our enterprise. It is providing remarkable returns for Unum." –Bob Best, Chief Operating Officer, Unum "The Lean Six Sigma Guide to Doing More with Less presents a comprehensive view of operations transformation, the approaches required for success, leadership's role, and the competitive advantage that results. Transformational changes are enabling us to do more with less, by investing and working smarter." –Ted Doheny, President and COO, Joy Mining Machinery

Value-stream maps are the blueprints for lean transformations and Learning to See is an easy-to-read, step-by-step instruction manual that teaches this valuable tool to anyone, regardless of his or her background. This groundbreaking workbook, which has introduced the value-stream mapping tool to thousands of people around the world, breaks down the important concepts of value-stream mapping into an easily grasped format. The workbook, a Shingo Research Prize recipient in 1999, is filled with actual maps, as well as engaging diagrams and illustrations. The value-stream map is a paper-and-pencil representation of every process in the material and information flow, along with key data. It differs significantly from tools such as process mapping or layout diagrams because it includes information flow as well as material flow. Value-stream mapping is an overarching tool that gives managers and executives a picture of the entire production process, both value and non value-creating activities. Rather than taking a haphazard approach to lean implementation, value-stream mapping establishes a direction for the company. To encourage you to become actively involved in the learning process, Learning to See contains a case study based on a fictional company, Acme Stamping. You begin by mapping the current state of the value stream, looking for all the sources of waste. After identifying the waste, you draw a map of a leaner future state and a value-stream plan to guide implementation and review progress regularly. Written by two experts with practical experience, Mike Rother and John Shook, the workbook makes complicated concepts simple. It teaches you the reasons for introducing a mapping program and how it fits into a lean conversion. With this easy-to-use product, a company gets the tool it needs to understand and use value-stream mapping so it can eliminate waste in production processes. Start your lean transformation or accelerate your existing effort with value-stream mapping. [Source : 4e de couv.]

This open access book presents the proceedings of the 3rd Indo-German Conference on Sustainability in Engineering held at Birla Institute of Technology and Science, Pilani, India, on September 16–17, 2019. Intended to foster the synergies between research and education, the conference is one of the joint activities of the BITS Pilani and TU Braunschweig conducted under the auspices of Indo-German Center for Sustainable Manufacturing, established in 2009. The book is divided into three sections: engineering, education and entrepreneurship, covering a range of topics, such as renewable energy forecasting, design & simulation, Industry 4.0, and soft & intelligent sensors for energy efficiency. It also includes case studies on lean and green manufacturing, and life cycle analysis of ceramic products, as well as papers on teaching/learning methods based on the use of learning factories to improve students' problem-solving and personal skills. Moreover, the book discusses high-tech ideas to help the large number of unemployed engineering graduates looking for jobs become tech entrepreneurs. Given its broad scope, it will appeal to academics and industry professionals alike.

Lean Thinking was launched in the fall of 1996, just in time for the recession of 1997. It told the story of how American, European, and Japanese firms

applied a simple set of principles called 'lean thinking' to survive the recession of 1991 and grow steadily in sales and profits through 1996. Even though the recession of 1997 never happened, companies were starving for information on how to make themselves leaner and more efficient. Now we are dealing with the recession of 2001 and the financial meltdown of 2002. So what happened to the exemplar firms profiled in Lean Thinking? In the new fully revised edition of this bestselling book those pioneering lean thinkers are brought up to date. Authors James Womack and Daniel Jones offer new guidelines for lean thinking firms and bring their groundbreaking practices to a brand new generation of companies that are looking to stay one step ahead of the competition.

Making materials flow

Lean Production for the Small Company

Kanban for the Shopfloor

Implementing Standardized Work

A Step-by-Step Guide to Implementing and Sustaining Your 5S Program

Key Strategies for Plant Improvement