Autonomous Maintenance In Seven Steps Implementing Tpm On The Shop Floor

One of the most important issues in developing sustainable management strategies and incorporating ecodesigns in production, manufacturing and operations management is the assessment of the sustainability of business operations and organizations' overall environmental performance. The book presents the results of recent studies on sustainability assessment. It provides a solid reference for researchers in academia and industrial practitioners on the state-of-the-art in sustainability appraisal including the development and application of sustainability indices, quantitative methods, models and frameworks for the evaluation of current and future welfare outcomes, recommendations on data collection and processing for the evaluation of organizations' environmental performance, and eco-efficiency approaches leading to business process re-engineering.

This book discusses the main quality management (QM) programs and their possible integration into systematic industrial maintenance (SIM). Unlike traditional engineering maintenance books, it not only explains the theory but also provides practical examples of the integration of QM and SIM programs. It also includes reference sources, making it useful for readers wanting to explore specific areas in more depth. Chapter 1 introduces various aspects of the main quality management (QM) programs, including total quality management (TQM), just-in-time (JIT) and lean manufacturing (Lean). Subsequently, it examines the relation of quality and maintenance. Chapter 2 reviews the concepts of systematic industrial maintenance (SIM) and the application of quality control (QC) tools. Chapter 3 offers an overview, historical perspective and trends in industrial maintenance techniques. Chapters 4, 5, 6, 7, 8 and 9 focus on topics related to schedule-based maintenance, condition-based maintenance, reliability-based maintenance, computerized-based maintenance, risk-based maintenance and total productive maintenance. Covering the theory of each of these types of SIM, the chapters also explain their real-world application in QM and highlight their merits and weaknesses in the context of supporting QM.

Reduce plant breakdowns to zero and increase productivity with this step-by-step guide to implementing TPM. Included are discussions of TPM for complete elimination of losses; the outline of TPM; the five countermeasures to TPM breakdown; and the seven steps of autonymous maintenance: initial cleaning, countermeasures to source of contamination and inaccessible area, cleaning and lubricating standards, overall inspection, autonomous inspection, process quality assurance, and autonomous maintenance in manual work. With 118 illustrations and an index.

Agilent Technologies, formerly Hewlett-Packard's Test and Measurement Division, operates an integrated circuit fabrication plant in Fort Collins, Colorado. Guided by Masaji Taijiri, the author of 7 Steps to Autonomous Maintenance (see page 34), author Jim Leflar and his team at Agilent developed a complete TPM program for the complex equipment on their shop floor. Drawn from these experiences, Practical TPM is a must read for anyone who wants to begin successful TPM implementation. Part I explains the fundamental concepts of TPM, including the six basic principles of TPM, the goals of TPM, cultural changes resulting from TPM, and the keys to successful implementation. Part II — the heart of the book — describes, in step-by-step detail, the evolution of Agilent's TPM program. Each phase is clearly defined and demonstrated; the working tools and systems developed by the Agilent TPM team in the process are discussed at length. To conclude, Part III focuses on developing a vision and a strategy for your own successful TPM program. Replete with annotated photographs and illustrations documenting Agilent's successful program, Practical TPM: Successful Equipment Management at Agilent Technologies offers an invaluable roadmap to TPM implementation. The book covers: A step-by-step TPM program as implemented at a major US corporation The 5-why analysis method Examples of one-point lessons Using visual controls in a TPM program Tools for understanding equipment failures Improving machine productivity Improvement metrics Master checklists and forms Developing activity boards Appendices containing examples of maintenance training materials For a PDF file with the preface and table of contents click here. For a PDF file with the first chapter click here.

Handbook of Safety Principles

TPM for Workshop Leaders

Understanding Overall Equipment Effectiveness, Reliability, and Maintainability

Discovering the Brain

Implementing TPM

Systematic Industrial Maintenance to Boost the Quality Management Programs

Recent advancements in information systems and computer technology have led to developments in equipment and robotic technology that have permanently changed the characteristics of manufacturing equipment. Equipment Management in the Post-Maintenance Era: A New Alternative to Total Productive Maintenance (TPM) introduces a new way of thinking to help high-tech organizations manage an increasingly complex equipment base. It also facilitates the fundamental understanding of equipment management those in traditional industries will need to prepare for the emerging microchip era in equipment. Kern Peng shares insights gained through decades of managing equipment performance. Using a systems model to analyze equipment management, he introduces alternatives in equipment management that are currently gaining momentum in high-tech industries. The book highlights the fundamental internal flaw in maintenance organizational setup, presents new approaches to replace maintenance functional setup, and illustrates a time-tested transformation and implementation process to help transition your organization from the maintenance era to the new post-maintenance era. Breaks down the history of equipment into five phases Provides a clear understanding of equipment management fundamentals Introduces alternatives in equipment management beyond the mainstream principles of maintenance management The book examines maintenance management logistics, including planning and budgeting, training and people development, customer services and management, vendor management, and inventory management. Supplying a comprehensive look at the history of equipment management, it analyzes current maintenance practice and details approaches that can significantly improve the effectiveness and efficiency of your equipment management well into the future.

Through TPM, more companies accept the concept of Zero Breakdowns as achievable. Based on first hand experience, this is a practical guide to delivering TPM benefits, and world class performance.

Total Productive Maintenance (TPM) is an extremely effective strategy for increasing industrial competitiveness in today's worldwide economy. Enlightened company leaders are recognizing that TPM is a "best of class" manufacturing improvement process. Yet some U.S. firms have been only partially successful in implementing a TPM program. Now, two American authors thoughtfully consider how TPM fits into an overall manufacturing improvement strategy for North American companies. "Implementing TPM "provides details on implementation planning and deployment based on the authors' own experiences in accommodating TPM to the distinctive needs of North American plants. It offers an approach to TPM planning and deployment that modifies and builds on the 12-step process advocated by the Japan Institute of Plant Maintenance. Key chapters review overall deployment steps, methods for calculating equipment effectiveness in different settings, and the seven autonomous maintenance steps. Of special interest are chapters on implementing TPM in union environments and in conjunction with other initiatives, such as continuous flow manufacturing and Eli Goldratt's "theory of constraints." Consultants Charles Robinson and Andrew Ginder bring a depth of knowledge to their "in the trenches" experience with companies implementing TPM. Their book offers a real-world perspective on what works and what doesn't and cuts through the perceived complexity of TPM's comprehensive, company-wide approach. Their overall purpose is "to help companies analyze the value of TPM as a strategy for achieving excellence in their field." Aimed at an audience of plant and division managers, business managers, and first-line supervisors, " Implementing TPM "is an excellent resource for strategic planning and an educational tool for middle and upper management.

A companywide approach to improving the effectiveness and longevity of equipment and machines, Total Productive Maintenance (TPM) is a critical component of production line success. The need for a step-by-step guidelines on how to achieve TPM has been filled with the publication of The TPM Playbook: A Step-by-Step Guideline for the Lean Practitione

Equipment Management in the Post-Maintenance Era

Designing Food Safety and Equipment Reliability Through Maintenance Engineering

Factors Affecting the Implementation of a Total Productive Maintenance System (TPM)

TPM Implementation, a Japanese Approach

Select Proceedings of EMSME 2020

Autonomous Maintenance for Operators

Workshop leaders play a central role in your company's efforts to implement TPM. Once your workers have been divided into small groups to learn the fundamentals of TPM, it is the group leader who spearheads ongoing training and implementation activities. With quick-reading, people-oriented practicality, this new book addresses the role of the workshop leader in maximizing the benefits of TPM.A top TPM consultant in Japan, Kunio Shirose: Incorporates cartoons and graphics to convey the hands-on leadership issues of TPM implementationUses case studies to reinforce his ideas on training and managing equipment operators in the care of their equipmentItemizes specific activities that must be undertaken to search out, correct, and control defects to remedy equipment shortcomings.He also addresses the cooperative relationship necessary between maintenance and production and leaves you with an understanding of the three imperatives for successful TPM implementation to change the quality and functioning of the equipment, the way operators think about equipment, and the workplace. (Originally published by the Japan Management Association.)

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.

Total Operations Solutions builds on concepts that were introduced in "Total Manufacturing Solutions", Basu and Wright (1997). It demonstrates how this holistic approach of operational excellence driven by a self-assessment methodology can be applied equally to manufacturing, service or public sectors. The text covers an implementation programme to demonstrate how to put the methodology into practice. a differentiating feature ofthe approach will be a critical uopdate, impact analysis and comparison with new developments such as e-Business, outsourcing, Six Sigma, EFQM and ISO 9000:2000. It is a step-by-step guide for the application of the appropriate tools to the improvement process. Total Operations Solutions could be used as an essential handbook for all employees in a Six Sigma programme and provide a better understanding of basic tools and techniques to help them to support a quality improvement initiative and sustain a srong competitive position.

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.

Motivation, Theory, and Practice

Total Productive Maintenance

HCI International 2014 - Posters' Extended Abstracts

Production and Operations Management

International Conference, HCI International 2014, Heraklion, Crete, June 22-27, 2014. Proceedings, Part II

A Companywide Approach to Reducing Lead Times

The 7 Autonomous Maintenance Steps poster is used during an implemented TPM program to ensure that all maintenance staff and operators are clear on the principles for autonomous maintenance.

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.

Developed by the author and now being employed by a number of businesses, Quick Response Manufacturing (QRM) is an expansion of time-based competition, aimed at a single target with the goal of reducing lead times. The key difference between QRM and other time-based programs is that QRM covers an entire organization, from the shop floor to the office, to sales and beyond. Providing guidelines for establishing a QRM enterprise, this volume builds upon kaizen, TQM, TPM, and other practice to help organizations streamline all functions of their operation. It shows how to quickly introduce products, along with ways to rethink materials and production management.

A valuable tool for establishing and maintaining system reliability, overall equipment effectiveness (OEE) has proven to be very effective in reducing unscheduled downtime for companies around the world. So much so that OEE is quickly becoming a requirement for improving quality and substantiating capacity in leading organizations, as well as a req

Selected papers from the International Symposium on Occupational Safety and Hygiene (SHO 2017), April 10-11, 2017, Guimarães, Portugal

Design of Work and Development of Personnel in Advanced Manufacturing

7 Autonomous Maintenance Steps Poster

The OEE Primer

Total Operations Solutions

TPM for the Lean Factory

This is a comprehensive, user-friendly and hands-on book that is a single source of reference of tools and techniques for all quality practitioners. Implementing Six Sigma and Lean covers the basics of how to manage for consistently high quality and gives good coverage of both simple tools and advanced techniques which can be used in all businesses. This book provides guidance on how to use these too new start-up companies, stalled projects and the constant achievement of high quality in well-established quality regimes. Case studies are included that encourage the reader to respond in a practical situations and provide a good learning resource for courses. There are summaries of key elements and questions with exercises at the end of each chapter.

Process industries have a particularly urgent need for collaborative equipment management systems, but until now have lacked for programs directed toward their specific needs. TPM in Process Industries brings together top consultants from the Japan Institute of Plant Maintenance to modify the original TPM Development Program. In this volume, they demonstrate how to analyze process environments an process loss structure and calculation, autonomous maintenance, equipment and process improvement, and quality maintenance. For all organizations managing large equipment, facing low operator/machine ratios, or implementing extensive improvement, this text is an invaluable resource.

Existing maintenance engineering techniques pursue equipment reliability with a focus on minimal costs, but in the food industry, food safety is the most critical issue. This book identifies how to ensure food product safety through maintenance engineering in a way that produces added value and generates real profits for your organization. Integrating food safety techniques with reliability and maintenance e Designing Food Safety and Equipment Reliability Through Maintenance Engineering details a maintenance design process that captures all conceivable critical factors in food manufacturing lines. While maintenance engineering normally starts with equipment reliability, this book starts with product safety to identify equipment criticalities and maintenance solutions. The text examines the problems currently and introduces powerful solutions to help food producers and consultants manage both food safety and manufacturing effectiveness. It presents an innovative tool for weighing food, human, and equipment criticalities and also describes how to maximize maintenance design outcome through the empowerment of equipment operators and their close cooperation with maintenance and quality specialists. Det task lists, the book includes case studies that illustrate the problems that low equipment reliability can create for your customers and your company's image. It outlines key performance indicators that can help producers and suppliers easily identify quality, availability, and productivity gaps. It also highlights critical factors that can help you avoid process bottlenecks.

Readers will learn how to integrate quality and reliability control, machine tool maintenance, production and inventory control, and suppliers into the linked-cell system for one-piece parts movement within cells and small-lot movement between cells.

Through-life Engineering Services

Lean Manufacturing Systems and Cell Design

Maintenance Decision Making

Sustainability Appraisal: Quantitative Methods and Mathematical Techniques for Environmental Performance Evaluation

Implementing Six Sigma and Lean

A Route to World Class Performance

In the process industry, shutdown and turnaround costs are responsible for an excessive amount of maintenance expenses. Process Plants: Shutdown and Turnaround Management explores various types of shutdowns, presents recommendations for better management, and offers feasible solutions to help reduce overheads. Because turnaround management is the l

Over the last decades maintenance management has evolved from a somewhat neglected function into a full-fledged business function in the industry as well as in the service sector.This book provides a structured approach to maintenance management. It covers maintenance strategy decisions, resource management, assessment system design, etc. Decision support models and tools

in these areas are discussed from the theoretical point of view and illustrated by numerous examples and case studies.Due to its concept the book can be interesting for students as well as practitioners.This book is the successor of Maintenance Management (2000), which gave an introduction in the field.
This book provides an understanding of the complexity and comprehensiveness of the total productive maintenance (TPM) process. It supplements works by Japanese authors with guidance and detail on how the TPM process relates to North American plants or facilities.
This book presents select papers from the International Conference on Energy, Material Sciences and Mechanical Engineering (EMSME) - 2020. The book covers the three core areas of energy, material sciences and mechanical engineering. The topics covered include non-conventional energy resources, energy harvesting, polymers, composites, 2D materials, systems engineering, materials engineering, micro-machining, renewable energy, industrial engineering and additive manufacturing. This book will be useful to researchers and professionals working in the areas of mechanical and industrial engineering, materials applications, and energy technology.
TPM in Slovakia?
Successful Equipment Management at Agilent Technologies
Practical TPM
Innovative Methods and Worksheets for Equipment Management
Process Plants
Occupational Safety and Hygiene V

Learn how to make your company more efficient, increase customer value with less work and make better use of your organisation ' s resources by implementing a Lean management strategy. The Financial Times Guide to Lean is a guide to the tools that are used to implement Lean, showing you how to apply Lean practices fully into your organisation or company. This book offers a comprehensive and objective look at lean strategy and how it can be tailored for different companies.

Inhaltsangabe:Abstract: Modern manufacturing requires that organisations that want to be successful and to achieve world-class manufacturing must posses both effective and efficient maintenance. One approach to improve the performance of maintenance activities is to implement a Total Productive Maintenance (TPM) system. The aim of this dissertation is to prove that the introduction of a TPM system is by no means an easy task, because there are several barriers that encumber the implementation process, the driving forces to success have to be identified and well understood, and a process of organisational change has to be managed successfully. The study analyses impediments, barriers and obstacles to the implementation procedure and discovers key success factors concluding with a conceptual framework for a successful TPM implementation. The dissertation also examines the challenge of managing change within the TPM context and identifies that such a TPM journey requires employee and management commitment to be successful. Through a case study of implementing TPM in an automotive supplier company, the practical aspect within and beyond basic TPM theory and problems encountered during the implementation are discussed and analysed. The paper concludes that the implementation of TPM is definitely not an easy task, which is considerably burdened by organisational, behavioural and other barriers, and necessitates the difficult mission to change peoples mindsets from a traditional maintenance approach. Inhaltsverzeichnis:Inhaltsverzeichnis: Title page01 Declaration and Word Count02 Abstract03 Acknowledgements04 Table of contents05 List of figures09 CHAPTER 1INTRODUCTION10 1.1Importance of TPM10 1.2Problem statement and objectives11 1.3Research methods12 1.4Structure of the study13 CHAPTER 2LITERATURE REVIEW14 2.1Defining TPM14 2.2Basic concept14 2.3Performance measurement17 2.4New roles of operators and maintenance staff19 2.5The JIPM s 12 steps to implement TPM21 2.6The connection between TPM and TQM23 2.7TPM in the view of change25 CHAPTER 3METHODOLOGY29 3.1Company profile and TPM background29 3.1.1General information about the company29 3.1.2CME: The plant of the focus of this study30 3.2Explanation, justification and limitations of selected methods32 3.2.1Focus group discussion32 3.2.1.1Data collection procedure33 3.2.1.2Data evaluation34 3.2.2Participant observation35 3.2.3Document analysis36 CHAPTER 4FINDINGS [...]

TPM leads to soaring productivity when your operators are positively and energetically involved in the maintenance of their own equipment. Autonomous Maintenance for Operatorsteaches 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.

Presents recent breakthroughs in the theory, methods, and applications of safety and risk analysis for safety engineers, risk analysts, and policy makers Safety principles are paramount to addressing structured handling of safety concerns in all technological systems. This handbook captures and discusses the multitude of safety principles in a practical and applicable manner. It is organized by five overarching categories of safety principles: Safety Reserves; Information and Control; Demonstrability; Optimization; and Organizational Principles and Practices. With a focus on the structured treatment of a large number of safety principles relevant to all related fields, each chapter defines the principle in question and discusses its application as well as how it relates to other principles and terms. This treatment includes the history, the underlying theory, and the limitations and criticism of the principle. Several chapters also problematize and critically discuss the very concept of a safety principle. The book treats issues such as: What are safety principles and what roles do they have? What kinds of safety principles are there? When, if ever, should rules and principles be disobeyed? How do safety principles relate to the law; what is the status of principles in different domains? The book also features: • Insights from leading international experts on safety and reliability • Real-world applications and case studies including systems usability, verification and validation, human reliability, and safety barriers • Different taxonomies for how safety principles are categorized • Breakthroughs in safety and risk science that can significantly change, improve, and inform important practical decisions • A structured treatment of safety principles relevant to numerous disciplines and application areas in industry and other sectors of society • Comprehensive and practical coverage of the multitude of safety principles including maintenance optimization, substitution, safety automation, risk communication, precautionary approaches, non-quantitative safety analysis, safety culture, and many others The Handbook of Safety Principles is an ideal reference and resource for professionals engaged in risk and safety analysis and research. This book is also appropriate as a graduate and PhD-level textbook for courses in risk and safety analysis, reliability, safety engineering, and risk management offered within mathematics, operations research, and engineering departments. NIKLAS MÖLLER, PhD, is Associate Professor at the Royal Institute of Technology in Sweden. The author of approximately 20 international journal articles, Dr. Möller's research interests include the philosophy of risk, metaethics, philosophy of science, and epistemology. SVEN OVE HANSSON, PhD, is Professor of Philosophy at the Royal Institute of Technology. He has authored over 300 articles in international journals and is a member of the Royal Swedish Academy of Engineering Sciences. Dr. Hansson is also a Topical Editor for the Wiley Encyclopedia of Operations Research and Management Science. JAN-ERIK HOLMBERG, PhD, is Senior Consultant at Risk Pilot AB and Adjunct Professor of Probabilistic Riskand Safety Analysis at the Royal Institute of Technology. Dr. Holmberg received his PhD in Applied Mathematics from Helsinki University of Technology in 1997. CARL ROLLENHAGEN, PhD, is Adjunct Professor of Risk and Safety at the Royal Institute of Technology. Dr. Rollenhagen has performed extensive research in the field of human factors and MTO (Man, Technology, and Organization) with a specific emphasis on safety culture and climate, event investigation methods, and organizational safety assessment.

Shutdown and Turnaround Management
Principles And Practice Of Total Productive Maintenance
Introduction to TPM
Proven Strategies and Techniques to Keep Equipment Running at Maximum Efficiency
A Case Study
A Step-by-Step Guideline for the Lean Practitioner

Reduce or eliminate costly downtime Short on teory 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.

Lean manufacturing cannot happen in a factory that lacks dependable, effective equipment. Breakdowns and processing defects translate into excess work-in-process and finished inventory, kept on hand ""just in case."" Recurring minor stoppages force employees to watch automated equipment that should run by itself. TPM gives a framework for addressing such problems, but many companies implement TPM at a superficial level, and the resulting productivity gains fall short of their potential. If your TPM implementation has resulted in posters and logos rather than a rise of productivity, how are you addressing this halt of progress? In TPM for the Lean Factory, authors Sekine and Arai teach you to identify and attack the key equipment-related problems and misunderstandings that make plants miss their lean manufacturing goals. Written for companies with a basic TPM framework already in place, you'll learn three powerful approaches for cutting this waste: The new 5Ss: focusing on standard locations and labeling through the first 2Ss Instant maintenance: mastering quick repairs of minor equipment failures Improved setup operations: organizing the preparation to save time and prevent errors Chapters on cell design, product and process quality factor testing, and daily equipment inspection give you additional weapons for fighting waste and low productivity. For practical application, an implementation overview summarizes the steps for each topic, keyed to a set of 50 adaptable worksheets and examples. A practical and supportive resource, TPM for the Lean Factory extends a fresh vision and focus to help you get top results from your TPM efforts.

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

Presents a framework of worldwide problems, issues and solutions relevant to the design of work and development of personnel in advanced manufacturing systems. Focuses on people and their central roles in automated production resulting from rapid computer-based integration. Addresses social, technical, organizational, managerial and ecological design issues relating to manufacturing success and the business objectives of a firm. Provides solutions to problems of integrating the human element into the production process.

Implementing TPM on the Shop Floor
Autonomous Maintenance in Seven Steps
Quick Response Manufacturing
FT Guide to Lean
How to streamline your organisation, engage employees and create a competitive edge
TPM in Process Industries

The brain ... There is no other part of the human anatomy that is so intriguing. How does it develop and function and why does it sometimes, tragically, degenerate? The answers are complex. In Discovering the Brain, science writer Sandra Ackerman cuts through the complexity to bring this vital topic to the public. The 1990s were declared the "Decade of the Brain" by former President Bush, and the neuroscience community responded with a host of new investigations and conferences. Discovering the Brain is based on the Institute of Medicine conference, Decade of the Brain: Frontiers in Neuroscience and Brain Research. Discovering the Brain is a "field guide" to the brain--an easy-to-read discussion of the brain's physical structure and where functions such as language and music appreciation lie. Ackerman examines How electrical and chemical signals are conveyed in the brain. The mechanisms by which we see, hear, think, and pay attention--and how a "gut feeling" actually originates in the brain. Learning and memory retention, including parallels to computer memory and what they might tell us about our own mental capacity. Development of the brain throughout the life span, with a look at the aging brain. Ackerman provides an enlightening chapter on the connection between the brain's physical condition and various mental disorders and notes what progress can realistically be made toward the prevention and treatment of stroke and other ailments. Finally, she explores the potential for major advances during the "Decade of the Brain," with a look at medical imaging techniques--what various technologies can and cannot tell us--and how the public and private sectors can contribute to continued advances in neuroscience. This highly readable volume will provide the public and policymakers--and many scientists as well--with a helpful guide to understanding the many discoveries that are sure to be announced throughout the "Decade of the Brain."

Demonstrating the latest research and analysis in the area of through-life engineering services (TES), this book utilizes case studies and expert analysis from an international array of practitioners and researchers – who together represent multiple manufacturing sectors: aerospace, railway and automotive – to maximize reader insights into the field of through-life engineering services. As part of the EPSRC Centre in Through-life Engineering Services program to support the academic and industrial community, this book presents an overview of non-destructive testing techniques and applications and provides the reader with the information needed to assess degradation and possible automation of through-life engineering service activities . The latest developments in maintenance-repair-overhaul (MRO) are presented with emphasis on cleaning technologies, repair and overhaul approaches and planning and digital assistance. The impact of these technologies on sustainable enterprises is also analyzed. This book will help to support the existing TES community and will provide future studies with a strong base from which to analyze and apply techn9olgical trends to real world examples.

This is the second of a two-volume set (CCIS 434 and CCIS 435) that constitutes the extended abstracts of the posters presented during the 16th International Conference on Human-Computer Interaction, HCII 2014, held in Heraklion, Crete, Greece in June 2014 and consisting of 14 thematic conferences. The total of 1476 papers and 220 posters presented at the HCII 2014 conferences were carefully reviewed and selected from 4766 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The extended abstracts were carefully reviewed and selected for inclusion in this two-volume set. This volume contains posters' extended abstracts addressing the following major topics: social media and social networks; learning and education; design for all; accessibility and assistive environments; design for aging; games and exergames; health and well-being; ergonomics and safety; HCI in business, tourism and transport; human-human and human-agent communication; user experience case studies.

Occupational Safety and Hygiene V contains selected contributions from the International Symposium on Occupational Safety and Hygiene (SHO 2017, 10-11 April 2017, Guimarães, Portugal). The contributions focus on a wide range of topics, including: - occupational safety - risk assessment - safety management - ergonomics - management systems - environmental ergonomics - physical environments - construction safety, and - human factors Occupational Safety and Hygiene V is mainly based on research carried out at universities and other research institutions, but also includes practical studies developed by OHS Practitioners within companies. Accordingly, this book will be a helpful text to get acquainted with the state-of-the-art in research in these domains, as well as with some practical tools and approaches that are currently used by OHS professionals worldwide.

The North American Experience
A New Alternative to Total Productive Maintenance (TPM)
Advances in Mechanical and Materials Technology
TPM -
Strategies and Implementation Guide
The TPM Playbook