

Read Book Devices And
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In Historical Perspective
*Devices And Designs
Medical Technologies In
Historical Perspective
Science Technology And
Medicine In Modern
History*

Read Book Devices And Designs Medical Technologies *History* In Historical Perspective

Recognize market opportunities,
master the design process, and
develop business acumen with this
'how-to' guide to medical
technology innovation. Outlining a

Read Book Devices And Designs Medical Technologies In Historical Perspective
systematic, proven approach for innovation - identify, invent, implement - and integrating medical, engineering, and business challenges with real-world case studies, this book provides a practical guide for students and

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professionals.

Throughout history, humanity has
been plagued by a myriad of
humanitarian crises that seemingly
take the form of perpetual human
suffering. Today, approximately
125,000,000 people require

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humanitarian assistance as the result of famine, war, geopolitical conflict, and natural disasters. A core component of this suffering is afflictions related to human health, where disturbances strain or overwhelm the existing healthcare

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infrastructure to create the conditions for an increase in morbidities and co-morbidities.

One of the more startling elements is the loss of life to preventable medical conditions that were not properly treated or even diagnosed

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in the field, and is often due to the limited interventional capacity that medical teams and humanitarian practitioners have in these scenarios. These individuals are often hindered by medical equipment deficiencies or devices

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not meant to function in austere conditions. The development of highly versatile, feasible, and cost-effective medical devices and technologies that can be deployed in the field is essential to enhancing medical care in

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unconventional settings. In this
Science Technology And
book we examine the nature of the
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creative problem-solving paradigm,
and dissect the intersection of
frugal, disruptive, open, and
reverse innovation processes in
advancing humanitarian medicine.

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Specifically, we examine the feasible deployment of these devices and technologies in unconventional environments not only by humanitarian aid and disaster relief agencies, but also by crisis-affected communities

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themselves. The challenge is complex, but the financial support and technical development of innovative solutions for the delivery of humanitarian aid is a process in which everyone is a stakeholder.

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Recognize market opportunities, master the design process, and develop business acumen with this 'how-to' guide to medical technology innovation. A three-step, proven approach to the biodesign innovation process -

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identify, invent, implement - provides a practical formula for innovation. The experiences of hundreds of innovators and companies, in the form of case studies, quotes and practical advice, offer a realistic, action-

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orientated roadmap for successful
biodesign innovation. Real-world
examples, end-of-chapter projects,
and Getting Started sections guide
the reader through each of the key
stages of the process and provide a
template to create their own new

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medical devices. Addressing common medical, engineering, and business challenges to develop well-rounded expertise, this book is the complete package for any biodesign entrepreneur. The text is supported by valuable resources,

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including up-to-date industry
changes: found at ebiodesign.org.

New medical
technologies--pharmaceuticals,
medical devices, and
procedures--often allow great
improvements in the outcomes of

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medical care, but they are also widely believed to be a major cause of increasing costs. Selective adoption of new technologies is crucial in the quest to control health care costs while preserving or enhancing the quality of care.

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This report focuses on evaluation and adoption of innovative procedures and medical devices by managed care organizations (MCOs). The project had two primary objectives: (1) to understand current MCO processes

Read Book Devices And Designs Medical Technologies In Historical Perspective for making coverage, medical-necessity, and payment decisions and how device developers and manufacturers prepare for and participate in these processes; and (2) to identify ways that private, voluntary action by the managed-

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care and medical-device industries might improve--for the benefit of society--these processes. The core data are from confidential interviews with eight companies that develop and manufacture medical devices and medical

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directors of nine MCOs. The findings should be of interest to medical-device developers and manufacturers, managed care organizations, public-policy makers, and researchers and analysts. A major impediment to

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socially appropriate adoption of emerging medical technologies is limited information about the performance of these technologies in day-to-day medical practice. The authors discuss prospects for improving four elements of

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information availability:

- Developing better information before market introduction
- Learning more from experience after market introduction
- Evaluating and synthesizing clinical information
- Disseminating

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information. They also discuss
several other issues that warrant
consideration: --Aligning private
incentives of MCOs and payers
with social values --Enhancing
MCO capabilities to evaluate
technologies and make decisions

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--Improving decisions by physicians --Reducing use of inappropriate or obsolete technologies --Reducing costs of decisionmaking for manufacturers and MCOs --Improving manufacturer understanding of the

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market environment --Helping
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MCOs and employers anticipate
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what is in the pipeline.

A Systems Based Overview Using
Engineering Standards

The Design and Manufacture of
Medical Devices

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Biodesign
Strategic Pricing for Medical
Technologies
Federal Policies and the Medical
Devices Industry
Medical Devices and Biomaterials
for the Developing World

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Invention, Development, and Use
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This book explores the ways in which socio-technical settings in medical contexts find varying articulations in a specific locale. Focusing on Japan, it consists of nine case studies on topics

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concerning: experiences with
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radiation in Hiroshima, Nagasaki,
and Fukushima; patient security,
end-of-life and high-tech
medicine in hospitals; innovation
and diffusion of medical
technology; and the engineering

Read Book Devices And Designs Medical Technologies In Historical Perspective and evaluating of novel devices in clinical trials. The individual chapters situate humans and devices in medical settings in their given semantic, pragmatic, institutional and historical context. A highly interdisciplinary

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approach offers deep insights
beyond the manifold findings of
each case study, thereby
enriching academic discussions
on socio-technical settings in
medical contexts amongst
affiliated disciplines. This volume

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will be of broad interest to
scholars, practitioners, policy
makers and students from
various disciplines, including
Science and Technology Studies
(STS), medical humanities,
social sciences, ethics and law,

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business and innovation studies,
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as well as biomedical
engineering, medicine and public
health.

The Case Studies in Medical
Devices Design series consists
of practical, applied case studies

Read Book Devices And Designs Medical Technologies In Historical Perspective relating to medical device design in industry. These titles complement Ogrodnik's Medical Device Design and will assist engineers with applying the theory in practice. The case studies presented directly relate

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In Historical Perspective
to Class I, Class IIa, Class IIb
Science Technology And
and Class III medical devices.
Medicine In Modern History

Designers and companies who
wish to extend their knowledge in
a specific discipline related to
their respective class of
operation will find any or all of

Read Book Devices And Designs Medical Technologies In Historical Perspective these titles a great addition to their library. Class 1 Devices is a companion text to Medical Devices Design: Innovation from Concept to Market. The intention of this book, and its sister books in the series, is to support the

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concepts presented in Medical
Science Technology And
Devices Design through case
Medicine In Modern History
studies. In the context of this
book the case studies consider
Class I (EU) and 510(k) exempt
(FDA) . This book covers
classifications, the conceptual

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and embodiment phase, plus
Science Technology And
design from idea to PDS. These
Medicine In Modern History
titles will assist anyone who is
working in the medical devices
industry or who is studying
biomedical subject areas to
design a successful medical

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device and avoid repeating past mistakes. Written by an experienced medical device engineer and entrepreneur, with real world experience of developing and commercializing medical products. Joins up

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theory and practice in an
accessible style.

This book raises questions about
the changing relationships
between technology, people and
health. It examines the
accelerating pace of

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technological development and a general shift to personalized, patient-led medicine. Such relationships are increasingly mediated through particular medical technologies, drawn together by the authors as

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‘personal medical devices’ (PMDs) – devices that are attached to, worn by, interacted with, or carried by individuals for the purposes of generating biomedical data and carrying out medical interventions on the

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person concerned. The
burgeoning PMD field is
advancing rapidly across multiple
domains and disciplines – so
rapidly that conceptual and
empirical research and thinking
around PMDs, and their clinical,

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social and philosophical implications, often lag behind new technical developments and medical interventions. This timely and original volume explores the significant and under-researched impact of personal medical

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devices on contemporary understandings of health and illness. It will be a valuable read for scholars and practitioners of medicine, health, science and technology and social science.

Successful product design and

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development requires the ability
to take a concept and translate
the technology into useful,
patentable, commercial products.
This book guides the reader
through the practical aspects of
the commercialization process of

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drug, diagnostic and device
biomedical technology including
market analysis, product
development, intellectual
property and regulatory
constraints. Key issues are
highlighted at each stage in the

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process, and case studies are used to provide practical examples. The book will provide a sound road map for those involved in the biotechnology industry to effectively plan the commercialization of profitable

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Humans and Devices in Medical
Science Technology And
Contexts
Medicine In Modern History

Modern Methods of Clinical
Investigation
Summary
Principles and Design

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In Historical Perspective
Comparative Design Control
Medicines and Medical Devices
Basic Principles for the
Development of Drugs,
Diagnostics and Devices
The rapid growth of home health
care has raised many unsolved

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issues and will have consequences that are far too broad for any one group to analyze in their entirety. Yet a major influence on the safety, quality, and effectiveness of home health care will be the set

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of issues encompassed by the field of human factors research—the discipline of applying what is known about human capabilities and limitations to the design of products, processes, systems, and work environments. To

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address these challenges, the National Research Council began a multidisciplinary study to examine a diverse range of behavioral and human factors issues resulting from the increasing migration of medical

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devices, technologies, and care practices into the home. Its goal is to lay the groundwork for a thorough integration of human factors research with the design and implementation of home health care devices,

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technologies, and practices. On
October 1 and 2, 2009, a group
of human factors and other

experts met to consider a diverse
range of behavioral and human
factors issues associated with
the increasing migration of

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medical devices, technologies,
and care practices into the
home. This book is a summary of
that workshop, representing the
culmination of the first phase of
the study.

A critical introduction to the role

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and cultural significance of technological innovation in redefining the boundaries of medicine and the body, tracing this process through the figure of 'the lifecourse'.

First published in 2001: This

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handbook has been written to
give those professionals working
in the development and use of
medical devices practical
knowledge about biomedical
technology, regulations, and their
relationship to quality health

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In Historical Perspective
care.

In the past 50 years the
development of a wide range of
medical devices has improved
the quality of people's lives and
revolutionized the prevention and
treatment of disease, but it also

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has contributed to the high cost of health care. Issues that shape the invention of new medical devices and affect their introduction and use are explored in this volume. The authors examine the role of

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federal support, the decision-making process behind private funding, the need for reforms in regulation and product liability, the effects of the medical payment system, and other critical topics relevant to the

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development of new devices.
Springer Handbook of Medical
Technology
Medicine In Modern History

Intersections of Inquiry
Engineering Care to Improve
Health and Welfare
Comparing Development of

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In Historical Perspective
Drugs, Devices, and Procedures
in Medicine

Science Technology And
Medicine In Modern History
Quantified Lives and Vital Data
Exploring Health and Technology
through Personal Medical
Devices

Workshop Summary

Page 64/190

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Americans praise medical technology for saving lives and improving health. Yet, new technology is often cited as a key factor in skyrocketing medical costs. This volume, second in the Medical Innovation at the Crossroads series,

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examines how economic incentives for innovation are changing and what that means for the future of health care. Up-to-date with a wide variety of examples and case studies, this book explores how payment, patent, and regulatory

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policies as well as the involvement of numerous government agencies affect the introduction and use of new pharmaceuticals, medical devices, and surgical procedures. The volume also includes detailed

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comparisons of policies and patterns
of technological innovation in
Western Europe and Japan. This
fact-filled and practical book will be
of interest to economists,
policymakers, health administrators,
health care practitioners, and the

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concerned public.

Medical Device Design: Innovation
from Concept to Market, Second
Edition provides the bridge between
engineering design and medical
device development. There is no
single text that addresses the

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plethora of design issues a medical devices designer meets when developing new products or improving older ones; this book fills that need. It addresses medical devices' regulatory (FDA and EU) requirements, shows the essential

Read Book Devices And Designs Medical Technologies In Historical Perspective methodologies medical designers must understand to ensure their products meet requirements, and brings together proven design protocols, thus enabling engineers and medical device manufacturers to rapidly bring new products to the

Read Book Devices And Designs Medical Technologies In Historical Perspective marketplace. This book is unique because it takes the reader through the process of medical device development, from very early stages of conceptualization, to commercialization on the global market. This rare resource can be

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In Historical Perspective
used by both professionals and
Science Technology And
newcomers to device design.

Medicine In Modern History
Provides a reference to standards
and regulations that have been
updated, including ISO 13485:2016,
FDA regulations and the European
Medical Device Regulation Includes

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new case studies in the areas of
classifying medical devices, the
design process, quality, labeling,
instructions for use, and more
Presents additional content around
software and biocompatibility
concerns

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This User ' s Guide is intended to support the design, implementation, analysis, interpretation, and quality evaluation of registries created to increase understanding of patient outcomes. For the purposes of this guide, a patient registry is an

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organized system that uses observational study methods to collect uniform data (clinical and other) to evaluate specified outcomes for a population defined by a particular disease, condition, or exposure, and that serves one or

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Science, Technology, And
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more predetermined scientific, clinical, or policy purposes. A registry database is a file (or files) derived from the registry. Although registries can serve many purposes, this guide focuses on registries created for one or more of the

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following purposes: to describe the natural history of disease, to determine clinical effectiveness or cost-effectiveness of health care products and services, to measure or monitor safety and harm, and/or to measure quality of care. Registries

Read Book Devices And Designs Medical Technologies In Historical Perspective are classified according to how their populations are defined. For example, product registries include patients who have been exposed to biopharmaceutical products or medical devices. Health services registries consist of patients who

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have had a common procedure,
clinical encounter, or
hospitalization. Disease or condition
registries are defined by patients
having the same diagnosis, such as
cystic fibrosis or heart failure. The
User ' s Guide was created by

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researchers affiliated with AHRQ ' s Effective Health Care Program, particularly those who participated in AHRQ ' s DEcIDE (Developing Evidence to Inform Decisions About Effectiveness) program. Chapters were subject to

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multiple internal and external
Science Technology And
independent reviews.

Medicine In Modern History
New Frontiers in Medical Device
Technology offers the engineering,
medical, and business communities
an up-to-date report on current and
emerging medical technologies. This

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timely and authoritative book brings together a core of experts who provide comprehensive coverage of new medical device technologies and focuses on the link between the engineering and medical aspects.

Relevant engineering principles are

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reviewed before focusing on the state-of-the-art technologies and their applications. For engineers, this book will provide knowledge of the needs, applications, and biological effects of medical devices and thus point the way toward new

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opportunities for engineering solutions. Members of the medical community will gain an understanding of the engineering concepts applied to medical devices and their most recent applications. Business and legal professionals will

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acquire a better understanding of
Science Technology And
medical technology and its
Medicine In Modern History
enormous market potential.

Bioinspired Devices

New Medical Devices

Applications and Technology

A Review of Design Issues Relating

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In Historical Perspective
to Medicines and Medical Devices
from a Safety and Quality
Science Technology And
Medicine In Modern History
Perspective

Registries for Evaluating Patient
Outcomes

Be Your Own Incubator

Reimagining Innovation in

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Humanitarian Medicine
Science Technology And
Medicine In Modern History

Evidence suggests that
medical innovation is
becoming increasingly
dependent on
interdisciplinary research
and on the crossing of
institutional boundaries.

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Science Technology And
Multiple Medical History

This volume focuses on the conditions governing the supply of new medical technologies and suggest that the boundaries between disciplines, institutions, and the private and public sectors have been redrawn

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and reshaped. Individual essays explore the nature, organization, and management of interdisciplinary R&D in medicine; the introduction into clinical practice of the laser, endoscopic innovations, cochlear

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implantation, cardiovascular
imaging technologies, and
synthetic insulin; the
division of innovating labor
in biotechnology; the
government- industry-
university interface;
perspectives on industrial

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R&D management; and the growing intertwining of the public and proprietary in medical technology.

This book provides a comprehensive approach to studying the principles and design of biomedical devices

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is also intended to be used as a textbook or reference for biomedical device

technology courses in universities and colleges.

It focuses on the functions and principles of medical devices (which are the

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invariant components) and uses specific designs and constructions to illustrate the concepts where appropriate. This book selectively covers diagnostic and therapeutic devices that are either

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commonly used or that their principles and design represent typical applications of the technology. In this second edition, almost every chapter has been revised—some with minor

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updates and some with significant changes and additions. For those who would like to know more, a collection of relevant published papers and book references is added at the end of each chapter. Based

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on feedback, a section on "Common Problems and Hazards" has been included for each medical device. In addition, more information is provided on the indications of use and clinical applications. Two

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new areas of medical device
technology have been added
in the two new chapters on
"Cardiopulmonary Bypass
Units" and "Audiology
Equipment."

Addressing the exploding
interest in bioengineering

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for healthcare applications,
this book provides readers
with detailed yet easy-to-
understand guidance on
biomedical device
engineering. Written by
prominent physicians and
engineers, Medical Devices:

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Surgical and Image-Guided
Technologies is organized
into stand-alone chapters
covering devices and systems
in diagnostic, surgical, and
implant procedures. Assuming
only basic background in
math and science, the

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authors clearly explain the fundamentals for different systems along with such topics as engineering considerations, therapeutic techniques and applications, future trends, and more.

After describing how to

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manage a design project for
medical devices, the book
examines the following:

Instruments for laparoscopic
and ophthalmic surgery, plus
surgical robotics Catheters
in vascular therapy and
energy-based hemostatic

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surgical devices Tissue
Science Technology And
ablation systems and the
various uses of lasers in
Medicine In Modern History

medicine Vascular and
cardiovascular devices, plus
circulatory support devices
Ultrasound transducers, X-
ray imaging, and

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In Historical Perspective,
neuronavigation An absolute
must for biomedical
engineers, Medical Devices:

Surgical and Image-Guided
Technologies is also an
invaluable guide for
students in all engineering
majors and pre-med programs

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In Historical Perspective
interested in exploring this
fascinating field.

This fourth edition is a
substantial revision of a
highly regarded text,
intended for senior design
capstone courses within
departments of biomedical

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engineering, bioengineering,
biological engineering and
medical engineering, History

worldwide. Each chapter has
been thoroughly updated and
revised to reflect the
latest developments. New
material has been added on

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entrepreneurship,
bioengineering design,
clinical trials and CRISPR.

Based upon feedback from prior users and reviews, additional and new examples and applications, such as 3D printing have been added to

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the text. Additional clinical applications were added to enhance the overall relevance of the material presented. Relevant FDA regulations and how they impact the designer's work have been updated. Features

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In Historical Perspective
Provides updated material as
needed to each chapter

Science Technology And
Medicine: Medical History
Incorporates new examples
and applications within each
chapter Discusses new
material related to
entrepreneurship, clinical
trials and CRISPR Relates

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critical new information
pertaining to FDA

regulations. Presents new

material on "discovery" of
projects "worth pursuing"

and design for health care

for low-resource

environments Presents

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multiple case examples of
entrepreneurship in this
field Addresses multiple

safety and ethical concerns
for the design of medical
devices and processes

Class 1 Devices

Plastics in Medical Devices

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In Historical Perspective
Surgical and Image-Guided

Technologies
Science Technology And

Design of Biomedical Devices
Designing Medical History

and Systems, 4th edition

Case Studies in Medical

Devices Design

Designing Usability into

Medical Products

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Sources of Medical
Technology And

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No book has been published that gives a detailed description of all the types of plastic materials used in medical devices, the unique requirements that the materials need to comply with

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and the ways standard plastics can be modified to meet such needs. This book will start with an introduction to medical devices, their classification and some of the regulations (both US and global) that affect their design, production and sale. A couple of

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chapters will focus on all the requirements that plastics need to meet for medical device applications. The subsequent chapters describe the various types of plastic materials, their properties profiles, the advantages and disadvantages

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for medical device applications, the techniques by which their properties can be enhanced, and real-world examples of their use. Comparative tables will allow readers to find the right classes of materials suitable for their applications or new product

development needs.
Eugene Goldfield lays out principles of engineering found in the natural world, with a focus on how components of coordinated structures organize themselves into autonomous functional systems. This self-organizing

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capacity is one of many qualities which can be harnessed to design technologies that can interact seamlessly with human bodies. In this volume, leading scholars in the history and sociology of medicine focus their attention on the material cultures of health

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care. They analyze how technology has become so central to medicine over the last two centuries and how we are coping with the consequences.

A step-by-step, full-color guide to successful medical technology innovation with a new focus on

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In Historical Perspective
value-based innovation and
global opportunities.

Science Technology And
Medicine In Modern History
The Changing Economics of
Medical Technology
Commercializing Successful
Biomedical Technologies
Reordering Life
Handbook of Medical Device

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In Historical Perspective
Design

New Medical Technologies and
Society

Case Studies from Japan

The Role of Human Factors in
Home Health Care

Interdisciplinary

collection of essays on

Page 122/190

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In Historical Perspective
*the influence and
development of new medical
technologies.*

*This new volume provides
an abundance of
information on new
biomedical applications*

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*being used today. The book
covers a wide range of
concepts and technologies,
discussing such modern
technological methods as
the Internet of Things, e-
pills, biomedical sensors,*

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support vector machines, wireless devices, image and signal processing in e-health, and machine learning. It also includes a discussion on software implementation for the

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devices used in biomedical applications. The different types of antennas, including antennas using RF energy harvesting for biomedical applications, are covered

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as well.

*This concise, user-
oriented and up-to-date
desk reference offers a
broad introduction to the
fascinating world of
medical technology, fully*

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*considering today's
progress and further
development in all
relevant fields. The
Springer Handbook of
Medical Technology is a
systemized and well-*

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*structured guideline which
distinguishes itself
through simplification and
condensation of complex
facts. This book is an
indispensable resource for
professionals working*

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*directly or indirectly
with medical systems and
appliances every day. It
is also meant for graduate
and post graduate students
in hospital management,
medical engineering, and*

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medical physics.

Medical Device

*Technologies introduces
undergraduate engineering
students to commonly
manufactured medical
devices. It is the first*

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*textbook that discusses
both electrical and
mechanical medical
devices. The first 20
chapters are medical
device technology
chapters; the remaining*

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*eight chapters focus on
medical device laboratory
experiments. Each medical
device chapter begins with
an exposition of
appropriate physiology,
mathematical modeling or*

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*biocompatibility issues,
and clinical need. A
device system description
and system diagram provide
details on technology
function and
administration of*

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*diagnosis and/or therapy.
The systems approach lets
students quickly identify
the relationships between
devices. Device key
features are based on five
applicable consensus*

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*standard requirements from
organizations such as ISO
and the Association for
the Advancement of Medical
Instrumentation (AAMI).
The medical devices
discussed are Nobel Prize*

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or Lasker Clinical Prize
winners, vital signs
devices, and devices in
high industry growth areas
Three significant Food and
Drug Administration (FDA)
recall case studies which

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have impacted FDA medical
device regulation are
included in appropriate
device chapters Exercises
at the end of each chapter
include traditional
homework problems,

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*analysis exercises, and
four questions from
assigned primary
literature Eight
laboratory experiments are
detailed that provide
hands-on reinforcement of*

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device concepts

A User's Guide

Medical Technologies in

Historical Perspective

Universities and Industry

BIOMEDICAL DEVICE

TECHNOLOGY

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Medical Device

Technologies

*Innovation from Concept to
Market*

Managed Care and the

Evaluation and Adoption of

Emerging Medical

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Technologies

This book provides the bridge between engineering design and medical device development. There is no single text that addresses the plethora of design issues a medical devices designer meets when developing new products or improving older ones. It addresses

medical devices' regulatory (FDA and EU) requirements--some of the most stringent engineering requirements globally. Engineers failing to meet these requirements can cause serious harm to users as well as their products' commercial prospects. This Handbook shows the essential methodologies

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medical designers must understand to ensure their products meet requirements. It brings together proven design protocols and puts them in an explicit medical context based on the author's years of academia (R&D phase) and industrial (commercialization phase) experience.

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This design methodology enables engineers and medical device manufacturers to bring new products to the marketplace rapidly. The medical device market is a multi-billion dollar industry. Every engineered product for this sector, from scalpels to stents to complex medical equipment, must be

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designed and developed to approved
Science, Technology, And
Medicine in Modern History
procedures and standards. This book
shows how Covers US, and EU and ISO
standards, enabling a truly
international approach, providing a
guide to the international standards
that practicing engineers require to
understand Written by an experienced

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**medical device engineers and
entrepreneurs with products in the
from the US and UK and with real
world experience of developing and
commercializing medical products**

**The very rapid pace of advances in
biomedical research promises us a wide
range of new drugs, medical devices,**

Read Book Devices And Designs Medical Technologies In Historical Perspective and clinical procedures. The extent to which these discoveries will benefit the public, however, depends in large part on the methods we choose for developing and testing them. **Modern Methods of Clinical Investigation** focuses on strategies for clinical evaluation and their role in uncovering

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the actual benefits and risks of medical innovation. Essays explore differences in our current systems for evaluating drugs, medical devices, and clinical procedures; health insurance databases as a tool for assessing treatment outcomes; the role of the medical profession, the Food and Drug

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Administration, and industry in
stimulating the use of evaluative
methods; and more. This book will be of

special interest to policymakers,
regulators, executives in the medical
industry, clinical researchers, and
physicians.

In Strategic Pricing for Medical

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Technologies, industry veteran and pricing expert, Christopher D. Provines, provides a comprehensive and practical

guide to pricing medical technologies.

Medical technologies include medical devices, in-vitro diagnostics, in-vivo diagnostics, combination products, and medical supplies & equipment. The

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book will help you better quantify, communicate, and capture value in an increasingly challenging environment. Drawing on 20-plus years of experience in the medical technology industry as well as research, the book provides a comprehensive strategic framework for pricing medical technologies. It

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specifically addresses, among other
things, quantifying the value of medical
technologies, setting pricing strategy,
communication value, developing
offering strategies, understanding
buying groups and the buying center,
the role of evidence and reimbursement,
pricing innovation, and international

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pricing. It is filled with real case studies, useful frameworks, and detailed explanations of how to think about the unique issues and challenges of pricing medical technologies. Here's what the experts are saying... "All companies need to get their pricing right, but few do. Provines lays out how

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to develop the right pricing strategy in
an easy and highly readable format.

This is a must read for every executive
and practitioner!" Jason Aroesty, Vice
President - Siemens Diagnostics, Head
of Northern Europe "Chris Provines
has written a clear and intelligent book
on the pricing of medical technologies.

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With a background of more than twenty-three years in the field, Provines brings his vast knowledge to bear in dissecting the intricacies of medical technology pricing which involves stakeholders such as the manufacturers, the payors, the government, the hospitals, patients, and society. The backbone of the book

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**In Historical Perspective
is value pricing, but it addresses
reimbursement and contracting issues
and the complexities of international
pricing as well. A must read for
practitioners and academics interested
in medical technology pricing.**

**Brilliant!" Lakshman Krishnamurthi,
Northwestern University, co-author of**

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"Principles of Pricing: An Analytical Approach," (Cambridge University Press, 2012) "Chris Provines has a long and distinguished career in medical technology pricing. His experience shines through in the clear manner in which he describes why medical businesses are different and how

companies can use value to drive their pricing strategies in this critical arena. Strategic Pricing for Medical Technologies will help you capitalize on your product's innovations across different markets and help your company thrive during these changing times." Kevin Mitchell, President - The

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Professional Pricing Society, Inc.
**"Pricing is often overlooked as a
strategic capability. In this book,
Provines provides a clear and
compelling roadmap to navigate the
intricacies of pricing decision-making
and use it for competitive advantage. A
"must read" for marketing leaders**

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from one of the industry's leading
experts!" Karl F. Schmidt, Corporate
Vice President - Johnson & Johnson
(retired)

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New Frontiers in Medical Device**

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Technology

Devices and Designs

Case Studies in Ghana and Nicaragua

The Process of Innovating Medical

Technologies

IP Strategies for Medical Device

Technologies

Technological Innovation

Page 162/190

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**Properties, Requirements and
Applications**
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This book focuses on the adoption of medical technology in the developing world, and the role that can be played by new biomaterials. These authors

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urge that advanced technology be aligned with the needs of developing and emerging markets, and an alternative definition of technology be embraced. This “new technology” considers natural

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*sources of materials and tools
for treatment and is not
restricted to the usual
traditional computerized or
electronic technology. This book
explores the difficulties that
accompany successful transfer*

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In Historical Perspective of technologies between disparate settings. The book then leaves the world of traditional technology and focuses on biomaterials, which represent an enormous opportunity for developing

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*societies to become active
participants in the development
of new technologies.*

*Biomaterials can be used in the
treatment of disease throughout
the developing world and
beyond. Biomaterials*

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*In Historical Perspective
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*encompass a range of naturally
derived substances; of
particular interest here are
naturally derived and
synthetically manufactured
materials with potential
applications in different body*

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systems. Because many of these materials can be grown, the agricultural output of developing nations is an obvious potential source of these biomaterials. The book considers the cases of Ghana

Read Book Devices And Designs Medical Technologies In Historical Perspective and Nicaragua as examples of the broader situation in West Africa and Central/South America. These two regions are uniquely positioned with regard to both health care and technological capabilities, and

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*both stand to grow significantly
in the coming years. While the
agricultural sectors of the two
nations are quite different, both
are major producers of corn and
other materials that should be
investigated further. Of course,*

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the difficulty in using a foodstuff for medical purposes is fully explored.

Medical devices play an important role in the field of medical and health technology, and encompass a wide range of

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*health care products. Directive
2007/47/EC defines a medical
device as any instrument,
apparatus, appliance, software,
material or other article,
whether used alone or in
combination, including the*

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*software intended by its
manufacturer to be used
specifically for diagnostic and/or
therapeutic purposes and
necessary for its proper
application, intended by the
manufacturer to be used for*

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*human beings. The design and
manufacture of medical devices
brings together a range of
articles and case studies dealing
with medical device R&D.
Chapters in the book cover
materials used in medical*

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*implants, such as Titanium
Oxide, polyurethane, and
advanced polymers; devices for
specific applications such as
spinal and craniofacial implants,
and other issues related to
medical devices, such as*

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precision machining and integrated telemedicine systems. Contains articles on a diverse range of subjects within the field, with internationally renowned specialists discussing each medical device Offers a

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practical approach to recent
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developments in the design and
manufacture of medical devices
Presents a topic that is the
focus of research in many
important universities and
centres of research worldwide*

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Medical device professionals encounter numerous challenges from successfully developing a medical device company to understanding and navigating the various intellectual property issues that arise as they seek to

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*protect and commercialize their
inventions. This is an essential
resource for understanding the
nuances of protecting and
launching a medical device in
the United States and abroad.
Written by IP and patent*

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*attorneys with experience
representing the unique
business needs of startups,
entrepreneurs, and early-stage
companies, this guide covers
creating and leveraging patent
portfolios; freedom to operate;*

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limiting risk of infringement;
trademarks in the context of
medical devices; strategies for
licensing and monetizing
patents; and more.

*Advocating a user-centered
approach to medical technology*

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design, Designing Usability into Medical Products covers the essential processes and specific techniques necessary to produce safe, effective, usable, and appealing medical systems and products. Written by

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experts on user-centered research, design, and evaluation, the book provides a range of alternative approaches to the subject. Wiklund and Wilcox explore how to make medical devices safe and

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effective by involving users in the design process. They discuss specific design and evaluation methods and tools, present case studies of user-friendly medical technologies and corporate human factors

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programs, and supply related resources for medical design professionals. The book conveys an in-depth understanding of the user-centered design process, covers design methods for FDA compliance, and offers

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guidance on performing a variety of hands-on user research, user interface design, and user interface evaluation.

The authors make a compelling case for treating the user's needs and preferences as a top

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*design priority, rather than an
afterthought. They demonstrate
that high-quality customer
interactions with systems and
products leads to effective
medical diagnosis and
treatment, increases the*

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*physical and mental well being
of patients and caregivers, and
leads to commercial success in
a crowded marketplace.*

Medical Devices

*Living and Working with the
New Medical Technologies*

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*Medical Device Design
Bioelectronics and Medical
Devices*

*A Practical Guide to Pricing
Medical Devices and Diagnostics*