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Power Distribution In Data Centers Raritan Inc

This book describes the use of free
air cooling to improve the efficiency

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of, and cooling of, equipment for use in telecom infrastructures.

Discussed at length is the cooling of communication installation rooms such as data centers or base stations, and this is intended as a valuable tool for the people designing and

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manufacturing key parts of communication networks. This book provides an introduction to current cooling methods used for energy reduction, and also compares present cooling methods in use in the field. The qualification methods

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and standard reliability assessments are reviewed, and their inability to assess the risks of free air cooling is discussed. The method of identifying the risks associated with free air cooling on equipment performance and reliability is

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introduced. A novel method of assessment for free air cooling is also proposed that utilizes prognostics and health management (PHM). This book also: Describes how the implementation of free air cooling can save energy for cooling

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within the telecommunications infrastructure. Analyzes the potential risks and failures of mechanisms possible in the implementation of free air cooling, which benefits manufacturers and equipment designers. Presents

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prognostics-based assessments to identify and mitigate the risks of telecommunications equipment under free air cooling conditions, which can provide the early warning of equipment failures at operation stage without disturbing the data

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centers' service. Optimum Cooling for Data Centers is an ideal book for researchers and engineers interested in designing and manufacturing equipment for use in telecom infrastructures.

Cloud Data Centers and Cost

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Modeling establishes a framework for strategic decision-makers to facilitate the development of cloud data centers. Just as building a house requires a clear understanding of the blueprints, architecture, and costs of the project; building a cloud-based

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data center requires similar knowledge. The authors take a theoretical and practical approach, starting with the key questions to help uncover needs and clarify project scope. They then demonstrate probability tools to test

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and support decisions, and provide processes that resolve key issues. After laying a foundation of cloud concepts and definitions, the book addresses data center creation, infrastructure development, cost modeling, and simulations in

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decision-making, each part building on the previous. In this way the authors bridge technology, management, and infrastructure as a service, in one complete guide to data centers that facilitates educated decision making. Explains how to

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balance cloud computing
functionality with data center
efficiency Covers key requirements
for power management, cooling,
server planning, virtualization, and
storage management Describes
advanced methods for modeling

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cloud computing cost including Real
Option Theory and Monte Carlo
Simulations Blends theoretical and
practical discussions with insights
for developers, consultants, and
analysts considering data center
development

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Energy Efficient Servers: Blueprints for Data Center Optimization introduces engineers and IT professionals to the power management technologies and techniques used in energy efficient servers. The book includes a deep

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examination of different features used in processors, memory, interconnects, I/O devices, and other platform components. It outlines the power and performance impact of these features and the role firmware and software play in initialization

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and control. Using examples from cloud, HPC, and enterprise environments, the book demonstrates how various power management technologies are utilized across a range of server utilization. It teaches the reader how

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to monitor, analyze, and optimize their environment to best suit their needs. It shares optimization techniques used by data center administrators and system optimization experts at the world's most advanced data centers.

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Presents design strategies,
operational approaches, and
technologies to help data centers
improve energy efficiency and
become eco-friendly.

Smarter Data Centers: Achieving
Greater Efficiency

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Optimum Cooling of Data Centers
Green Technology Applications for
Enterprise and Academic Innovation
Non-Uniform Power Distribution in
Data Centers for Safely
Overprovisioning Circuit Capacity
and Boosting Throughput

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Blueprints for Data Center
Optimization

A Beginner's Guide Towards
Understanding Data Center Design
Energy Efficient Servers
Blueprints
for Data Center Optimization
Apress
Introductory technical guidance for

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mechanical and electrical engineers and construction managers interested in improved energy efficiency for electronic data centers. Here is what is discussed:

1. INTRODUCTION 2.
INFORMATION TECHNOLOGY

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- (IT) SYSTEMS 3.
- ENVIRONMENTAL CONDITIONS
- 4. AIR MANAGEMENT 5.
- COOLING SYSTEMS 6.
- ELECTRICAL SYSTEMS 7.
- OTHER OPPORTUNITIES FOR
ENERGY-EFFICIENT DESIGN 8.

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DATA CENTER METRICS AND BENCHMARKING.

"Simplifies the absorption and use of the PUE metric and allows executives to gain understanding of the concepts surrounding PUE, while providing application

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knowledge and resources to those implementing and reporting data center metrics"--

Management of power in data centers is driven by the need to not exceed circuit capacity. Such techniques are evolving from ad

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hoc methods based on maximum node power usage to systematic methods that employ power-scalable components. These components allow for dynamically controlling power consumption with an accompanying effect on

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performance. Because the incremental performance gain from operating in a higher performance state is less than the increase in power, it is possible to overprovision the hardware infrastructure to increase

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throughput and yet still remain below an aggregate power limit. In overprovisioning, if each component operates at maximum power the limit would be exceeded with disastrous results. However, safe overprovisioning regulates

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power consumption locally to meet the global power budget. This research work presents PICLE, the Power Infrastructure Controller for Limited Environments. This framework is designed for boosting throughput through intelligent

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monitoring of server clusters by load-balancing available aggregate power under a set of operating constraints. The solution is useful for data centers that cannot expand the number of power circuits or seek effective usage of the

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available power budget due to power fluctuations. The framework is also ideally suited for environments with a heterogeneous workload and hence, a non-uniform power allocation requirement. Synthetic benchmarks indicate

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overprovisioning throughput gains of nearly 6% from a statically assigned, power managed environment and over 30% from an unmanaged environment. In addition, based on a representative workload for a two minute period, a

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non-uniform power allocation scheme is shown to increase throughput by over 16% versus a uniform power allocation mechanism.

Power Distribution Unit (PDU)
Secrets

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Smart Buildings Digitalization

Day One Data Center

Fundamentals

Designing Warehouse-Scale

Machines, Third Edition

PUE

An Introduction to Energy Efficiency

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for Data Centers

Implementing energy-efficient CPUs and peripherals as well as reducing resource consumption have become emerging trends in

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computing. As computers increase in speed and power, their energy issues become more and more prevalent. The need to develop and promote environmentally friendly computer

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technologies and systems
has also come to the
forefront

In the age of corporate
responsibility, green
technology and sustainability
continue to grip the

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consciousness of business
and academic institutions.
However, development of
appropriate business-driven
green applications requires
an awareness of best
practices of the green

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agenda. Green Technology
Applications for Enterprise
and Academic Innovation
addresses the importance of
green technology and
sustainability for technology,
enterprise, and academic

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innovation in energy management, renewable energy, and carbon reduction strategies. This book acts as the bridge for practitioners, academia, businesses, industrialists,

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governmental executives,
and students seeking
research in this emerging
area.

The book provides step-by-
step guidance on the design
of electrical installations,

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from domestic installation
final circuit design to fault
level calculations for LV
systems. Amendment 3
publishes on 5 January 2015
and comes into effect on 1
July 2015. All new

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installations from this point
must comply with
Amendment 3 to BS
7671:2008. Updated to
include the new
requirements in Amendment
3 to BS 7671:2008, the

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Electrical Installation Design
Guide, /I> reflects important
changes expected to: *

- Definitions throughout the
Regulations
- * Earth fault loop
impedances for all protective
devices

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This book gives a comprehensive guide on the fundamental concepts, applications, algorithms, protocols, new trends and challenges, and research results in the area of Green

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Information and
Communications Systems. It
is an invaluable resource
giving knowledge on the
core and specialized issues
in the field, making it highly
suitable for both the new

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and experienced researcher
in this area. Key Features:
Core research topics of
green information and
communication systems are
covered from a network
design perspective, giving

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both theoretical and
practical perspectives
Provides a unified covering
of otherwise disperse
selected topics on green
computing, information,
communication and

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networking Includes a set of
downloadable PowerPoint
slides and glossary of terms
for each chapter A 'whose-
who' of international
contributors Extensive
bibliography for enhancing

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further knowledge Coverage
includes: Smart grid
technologies and
communications Spectrum
management Cognitive and
autonomous radio systems
Computing and

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communication architectures
Data centres Distributed
networking Cloud computing
Next generation wireless
communication systems 4G
access networking Optical
core networks Cooperation

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transmission Security and
privacy Core research topics
of green information and
communication systems are
covered from a network
design perspective, giving
both a theoretical and

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practical perspective A
'whose-who' of international
contributors Extensive
bibliography for enhancing
further knowledge
Advances of Science and
Technology

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Case Studies on Data
Centers and Automation
Electrical Installation Design
Guide
Energy Efficient Thermal
Management of Data Centers
Administering Data Centers

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Engineering and Management of Data Centers

Green technology is not only good for the environment; it's also good for your bottom line. If your organization is exploring ways to save energy and reduce environmental waste, Green IT For

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Dummies can help you get there. This guide is packed with cost-saving ways to make your company a leader in green technology. The book is also packed with case studies from organizations that have gone green, so you can benefit from their experience. You'll discover how to:

Perform an energy audit to determine your

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present consumption and identify where to start greening Develop and roll out a green technology project Build support from management and employees Use collaboration tools to limit the need for corporate travel Improve electronic document management Extend hardware life, reduce data center floor space, and

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improve efficiency Formalize best practices for green IT, understand your company's requirements, and design an infrastructure to meet them Make older desktops and lighting fixtures more efficient with a few small upgrades Lower costs with virtual meetings, teleconferences, and telecommuting

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options Reduce your organization's energy consumption You'll also learn what to beware of when developing your green plan, and get familiar with all the terms relating to green IT. Green IT For Dummies starts you on the road to saving money while you help save the planet. This book focuses on the interaction

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between different energy vectors, that is, between electrical, thermal, gas, and transportation systems, with the purpose of optimizing the planning and operation of future energy systems. More and more renewable energy is integrated into the electrical system, and to optimize its usage and ensure that its full production can be

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hosted and utilized, the power system has to be controlled in a more flexible manner.

In order not to overload the electrical distribution grids, the new large loads have to be controlled using demand response, perchance through a hierarchical control set-up where some controls are dependent on price signals

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from the spot and balancing markets. In addition, by performing local real-time control and coordination based on local voltage or system frequency measurements, the grid hosting limits are not violated.

Offers predictions about the shift from private computer systems to Internet-

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based networks for computer-based businesses, and how the change will impact economics, culture, and society. In the era of Industry 4.0, the world is increasingly becoming smarter as everything from mobile phones to cars to TVs connects with unique addresses and communication mechanisms. However, in

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order to enable the smart world to be sustainable, ICT must embark into energy efficient paradigms. Green ICT is a moving factor contributing towards energy efficiency by reducing energy utilization through software or hardware procedures. Role of IoT in Green Energy Systems presents updated research trends in green

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technology and the latest product and application developments towards green energy. Covering topics that include energy conservation and harvesting, renewable energy, and green and underwater internet of things, this essential reference book creates further awareness of smart energy and critically

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examines the contributions of ICT towards green technologies. IT specialists, researchers, academicians, and students in the area of energy harvesting and energy management, and/or those working towards green energy technologies, wireless sensor networks, and smart applications will find this monograph

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beneficial in their studies.

*Handbook of Energy-Aware and Green
Computing - Two Volume Set*

Grow a Greener Data Center

Role of IoT in Green Energy Systems

Energy Efficient Data Centers

First International Workshop, E2DC

2012, Madrid, Spain, Mai 8, 2012, Revised

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Selected Papers

*9th EAI International Conference, ICAST
2021, Hybrid Event, Bahir Dar, Ethiopia,
August 27–29, 2021, Proceedings, Part I*

*This handbook offers a
comprehensive review of
the state-of-the-art*

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*research achievements in
the field of data
centers. Contributions
from international,
leading researchers and
scholars offer topics in
cloud computing,*

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*virtualization in data
centers, energy
efficient data centers,
and next generation data
center architecture. It
also comprises current
research trends in*

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emerging areas, such as data security, data protection management, and network resource management in data centers. Specific attention is devoted to

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*industry needs
associated with the
challenges faced by data
centers, such as various
power, cooling, floor
space, and associated
environmental health and*

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*safety issues, while
still working to support
growth without
disrupting quality of
service. The
contributions cut across
various IT data*

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*technology domains as a
single source to discuss
the interdependencies
that need to be
supported to enable a
virtualized, next-
generation, energy*

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*efficient, economical,
and environmentally
friendly data center.
This book appeals to a
broad spectrum of
readers, including
server, storage,*

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*networking, database,
and applications
analysts,
administrators, and
architects. It is
intended for those
seeking to gain a*

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stronger grasp on data center networks: the fundamental protocol used by the applications and the network, the typical network technologies, and their

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*design aspects. The
Handbook of Data Centers
is a leading reference
on design and
implementation for
planning, implementing,
and operating data*

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center networks.

*Data Centers are the
drivers of the digital
economy. Understanding
how data centers are
designed, how they work
and how they interact*

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*with the services we use
is key towards building
a great career in a
digital world. This book
will provide the reader
with a firm foundation
for understanding Data*

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Center design.

"This book covers a wide spectrum of topics relevant to implementing and managing a modern data center. The chapters are

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*comprehensive and the
flow of concepts is easy
to understand." -Cisco
reviewer Gain a
practical knowledge of
data center concepts To
create a well-designed*

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data center (including storage and network architecture, VoIP implementation, and server consolidation) you must understand a variety of key concepts

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and technologies. This book explains those factors in a way that smoothes the path to implementation and management. Whether you need an introduction to

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*the technologies, a
refresher course for IT
managers and data center
personnel, or an
additional resource for
advanced study, you'll
find these guidelines*

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*and solutions provide a
solid foundation for
building reliable
designs and secure data
center policies. **

*Understand the common
causes and high costs of*

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*service outages * Learn
how to measure high
availability and achieve
maximum levels * Design
a data center using
optimum physical,
environmental, and*

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*technological elements *
Explore a modular design
for cabling, Points of
Distribution, and WAN
connections from ISPs *
See what must be
considered when*

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*consolidating data
center resources **

*Expand your knowledge of
best practices and
security * Create a data
center environment that
is user- and manager-*

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*friendly * Learn how
high availability,
clustering, and disaster
recovery solutions can
be deployed to protect
critical information *
Find out how to use a*

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*single network
infrastructure for IP
data, voice, and storage
The comprehensive and
authoritative guide to
power electronics in
renewable energy systems*

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Power electronics plays a significant role in modern industrial automation and high-efficiency energy systems. With contributions from an

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*international group of
noted experts, Power
Electronics in Renewable
Energy Systems and Smart
Grid: Technology and
Applications offers a
comprehensive review of*

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the technology and applications of power electronics in renewable energy systems and smart grids. The authors cover information on a variety of energy systems

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*including wind, solar,
ocean, and geothermal
energy systems as well
as fuel cell systems and
bulk energy storage
systems. They also
examine smart grid*

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elements, modeling, simulation, control, and AI applications. The book's twelve chapters offer an application-oriented and tutorial viewpoint and also

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*contain technology
status review. In
addition, the book
contains illustrative
examples of applications
and discussions of
future perspectives.*

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*This important resource:
Includes descriptions of
power semiconductor
devices, two level and
multilevel converters,
HVDC systems, FACTS, and
more Offers discussions*

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*on various energy
systems such as wind,
solar, ocean, and
geothermal energy
systems, and also fuel
cell systems and bulk
energy storage systems*

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*Explores smart grid
elements, modeling,
simulation, control, and
AI applications Contains
state-of-the-art
technologies and future
perspectives Provides*

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*the expertise of
international
authorities in the field
Written for graduate
students, professors in
power electronics, and
industry engineers,*

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*Power Electronics in
Renewable Energy Systems
and Smart Grid:
Technology and
Applications offers an
up-to-date guide to
technology and*

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*applications of a wide-
range of power
electronics in energy
systems and smart grids.
A Comprehensive
Examination of the
Metric*

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*Handbook of Green
Information and
Communication Systems
Technology and
Applications
Green Data Centers
Monthly Newsletter June
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2010

Data Center Handbook

Green IT For Dummies

This book investigates the
coordinated power
management of multi-tenant
data centers that account for

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a large portion of the data center industry. The authors include discussion of their quick growth and their electricity consumption, which has huge economic and environmental impacts. This

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book covers the various coordinated management solutions in the existing literature focusing on efficiency, sustainability, and demand response aspects.

First, the authors provide a

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background on the multi-tenant data center covering the stake holders, components, power infrastructure, and energy usage. Then, each power management mechanism is

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described in terms of motivation, problem formulation, challenges and solution.

Provides the fundamentals, technologies, and best practices in designing,

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constructing and managing
mission critical, energy
efficient data centers

Organizations in need of high-
speed connectivity and
nonstop systems operations
depend upon data centers for

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a range of deployment solutions. A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally

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includes multiple power sources, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices. With contributions

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from an international list of experts, The Data Center Handbook instructs readers to: Prepare strategic plan that includes location plan, site selection, roadmap and capacity planning Design and

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build "green" data centers,
with mission critical and
energy-efficient
infrastructure Apply best
practices to reduce energy
consumption and carbon
emissions Apply IT

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technologies such as cloud and virtualization Manage data centers in order to sustain operations with minimum costs Prepare and practice disaster recovery and business continuity plan The book

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imparts essential knowledge needed to implement data center design and construction, apply IT technologies, and continually improve data center operations.

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Advances in Computers carries on a tradition of excellence, presenting detailed coverage of innovations in computer hardware, software, theory, design, and applications. The

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book provides contributors with a medium in which they can explore their subjects in greater depth and breadth than journal articles typically allow. The articles included in this book will become

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standard references, with lasting value in this rapidly expanding field. Presents detailed coverage of recent innovations in computer hardware, software, theory, design, and applications

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Includes in-depth surveys and tutorials on new computer technology pertaining to computing: combinatorial testing, constraint-based testing, and black-box testing
Written by well-known

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authors and researchers in
the field Includes extensive
bibliographies with most
chapters Presents volumes
devoted to single themes or
subfields of computer science
The Green and Virtual Data

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Center sets aside the political aspects of what is or is not considered green to instead focus on the opportunities for organizations that want to sustain environmentally-friendly economical growth. If

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you are willing to believe that
IT infrastructure resources
deployed in a highly
virtualized manner can be
combined with other
technologies to achieve
simplified and cost-effective

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delivery of services in a green, profitable manner, this book is for you. Savvy industry veteran Greg Schulz provides real-world insight, addressing best practices, server, software, storage,

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networking, and facilities issues concerning any current or next-generation virtual data center that relies on underlying physical infrastructures. Coverage includes: Energy and data

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footprint reduction Cloud-
based storage and computing
Intelligent and adaptive power
management Server, storage,
and networking virtualization
Tiered servers and storage,
network, and data centers

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Energy avoidance and energy efficiency Many current and emerging technologies can enable a green and efficient virtual data center to support and sustain business growth with a reasonable return on

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investment. This book presents virtually all critical IT technologies and techniques to discuss the interdependencies that need to be supported to enable a dynamic, energy-efficient,

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economical, and environmentally-friendly green IT data center. This is a path that every organization must ultimately follow. Take a tour of the Green and Virtual Data Center website.

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CRC Press is pleased to announce that The Green and Virtual Data Center has been added to Intel Corporation ' s Recommended Reading List. Intel ' s Recommended Reading program provides

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technical professionals a simple and handy reference list of what to read to stay abreast of new technologies. Dozens of industry technologists, corporate fellows, and engineers have

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helped by suggesting books and reviewing the list. This is the most comprehensive reading list available for professional computer developers.

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Distribution in Data Centers
for Safely Overprovisioning
Circuit Capacity and Boosting
Throughput

Data Center for Beginners

A Survey on Coordinated

Power Management in Multi-

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Tenant Data Centers
Servers, Storage, and Voice
over IP
Calculations for Electricians
and Designers
The Green and Virtual Data
Center

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Power Distribution Units (PDUs) – you mean power strips, right? That's what I thought when I was first introduced to this product. Boy oh boy was I wrong! Yes, the PDUs that are manufactured to be sold to the owners and operators of data centers do bear some similarities to the simple power strips

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that we all use at home. But we are really talking about two very different products here. What You'll Find Inside: POWER DISTRIBUTION UNITS (PDU): WHAT ARE THEY? WHY FUSES ARE BAD AND WHAT TO DO ABOUT IT WHAT THE WORLD OF FORMULA 1 AUTO RACING CAN

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TEACH DATA CENTER
OPERATORS WHY DATA CENTER
OPERATORS ARE SWITCHING TO
USING HY-MAG How much money do
you think that a data center operator
has invested in just one of the racks of
computers that sits in his or her data
center? There is the cost of the rack,

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of course, but then there's the cost of each of the servers that has been plugged into that rack, the networking gear, and the power distribution system. Not to mention the overhead of cooling and power distribution to the rack. Very quickly the value of a single rack can reach US\$500,000. Clearly

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it's in the best interests of the data center operator to know exactly what is going on with their investment. Questions that need to be answered include how much power is being used, if there is currently a fire, are there any hot spots, and whether there are any liquids in the area. The

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problem with today's modern data center is that all too often the answers to these questions are not available unless staff are sent out on to the data center floor with tools to make measurements. This means that a lot could go on when nobody was looking. Today's modern PDUs do so much

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more than just simply deliver power to the computers that have been plugged into a rack. They provide the "eyes and ears" that data center operators need in order to determine what is happening with their racks. Modern PDUs can support multiple types of sensors that can be used to piggy-

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back environmental information along with power usage information back to a central control system. Sophisticated Data Center Infrastructure Management (DCIM) software applications promise to be able to monitor all aspects of a data center. However, they are expensive and

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require an additional investment to both install and then maintain. The use of PDUs to collect needed data center status information provides a simple and low cost way to automate the monitoring of a modern data center. This book has been written to provide you with the information that you'll

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need in order to compare and contrast different types of PDUs. These sophisticated tools can be difficult to tell apart. This book will look at the features that you really needs and explain how you would use then in the real-world environment of a modern data center. It is my hope that after

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having read this book, you'll have the knowledge that you'll need to go out and select the type of PDU that best meets the needs of your business. Once you've done this, you can then implement a solution that will allow you to always know what is going on in your data center.

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This book explains the concept of data centers, including data collection, public parking systems, smart metering, and sanitizer dispensers. Electric urban transport systems and effective electric distribution in smart cities are discussed as well. The extensive role of power electronics in

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smart building applications, such as electric vehicles, rooftop terracing, and renewable energy integration, is included. Case studies on automation in smart homes and commercial and official buildings are elaborated. This book describes the complete implication of smart buildings via

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industrial, commercial, and community platforms. FEATURES Systematically defines energy-efficient buildings employing power consumption optimization techniques with the inclusion of renewable energy sources Covers data centers and cybersecurity with excellent data storage features for

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centers, researchers in the area, and faculty teaching related courses on data centers. The book can be used as a complementary text for traditional courses on Computer Networks, as well as innovative courses on IT Architecture, IT Service Management, IT Operations, and Data Centers.

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Energy Efficient Thermal Management of Data Centers examines energy flow in today's data centers. Particular focus is given to the state-of-the-art thermal management and thermal design approaches now being implemented across the multiple length scales involved. The impact of

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future trends in information technology hardware, and emerging software paradigms such as cloud computing and virtualization, on thermal management are also addressed. The book explores computational and experimental characterization approaches for determining

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temperature and air flow patterns within data centers. Thermodynamic analyses using the second law to improve energy efficiency are introduced and used in proposing improvements in cooling methodologies. Reduced-order modeling and robust multi-objective

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cloud computing and all the great web services we use every day. It discusses how these new systems treat the datacenter itself as one massive computer designed at warehouse scale, with hardware and software

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working in concert to deliver good levels of internet service performance. The book details the architecture of WSCs and covers the main factors influencing their design, operation, and cost structure, and

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the characteristics of their software base. Each chapter contains multiple real-world examples, including detailed case studies and previously unpublished details of the infrastructure used to power

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*Targeted at the architects and
programmers of today's WSCs,
this book provides a great
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*As we move towards becoming a
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resources are increasing rapidly. Smaller and more densely packed servers providing greater amounts of computing power can substantially increase power and cooling needs, while growing data volumes necessitate larger

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storage and network bandwidth capacities. Environmental and regulatory requirements can introduce additional limits on carbon emissions and water consumption. To satisfy these demands while keeping costs in

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facilities and IT are required. You can achieve greater efficiency using hardware, software, services, and design both in facilities and IT, but you need a comprehensive data center strategy to tie them together and

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*thus obtain a complete picture of
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techniques, best practices, and technological advances that can become critical components of success are included, along with methods for bringing them together to gain in-depth knowledge of data center

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operations. With such insight comes increased resiliency, rapid responsiveness, profitable access to detailed analytics, and reliable planning for the future. Although not all-inclusive, this document provides a guide to

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getting started, points you to additional sources of information, and suggests ways IBM can partner with you in your pursuit of a smarter data center.

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Keywords: *safe
overprovisioning, server cluster
power, feedback, dvs.*
This book constitutes the

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thoroughly refereed post-conference proceedings of the First International Workshop on Energy Efficient Data Centers (E2DC 2012) held in Madrid, Spain, in May 2012. The 13 revised full papers presented

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were carefully selected from 32 submissions. The papers cover topics from information and communication technologies of green data centers to business models and GreenSLA solutions. The first section

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presents contributions in form of position and short papers, related to various European projects. The other two sections comprise papers with more in-depth technical details. The topics covered

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include energy-efficient data center management and service delivery as well as energy monitoring and optimization techniques for data centers.

This book gathers a selection

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of peer-reviewed papers presented at the third Big Data Analytics for Cyber-Physical System in Smart City (BDCPS 2021) conference, held in Shanghai, China, on Nov. 27, 2021. The contributions,

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