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| Autore                  | Geng Hwaiyu   |
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| Edizione                | [Second edition.]   |
| Descrizione fisica      | 1 online resource (755 pages)   |
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| Soggetti                | Electronic data processing departments - Design and construction  |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Nota di bibliografia    | Includes bibliographical references and index.  |
| Nota di contenuto       | Sustainable data center strategic planning, design, construction, and operations with emerging technologies -- Global data center energy demand and strategies to conserve energy -- Nergy and sustainability in data centers -- Data center architecture and infrastructure -- Loud and edge computing -- Financial analysis, ROI and TCO -- Managing data center risk -- Software defined environment -- Computing, storage, networking resource management in data centers -- Wireless sensor networks to improve energy efficiency in data centers -- ASHRAE standards & practices for data centers -- Data center telecommunications cabling and TIA standards -- Air side economizer technologies -- Rack-level cooling and server-level cooling -- Corrosion (contamination) control for mission critical facilities -- Rack PDU for green data centers -- Fiber cabling fundamentals, installation and maintenance -- Design of energy efficiency IT equipment -- Energy saving technologies of servers in data centers -- Cyber-security and data centers -- Consideration of microgrids for data centers -- Data center site search and selection -- Architecture : data center rack floor plan and facility layout design -- Mechanical design in data centers -- Data center electrical design -- Electrical : uninterruptible power supply system -- Structural design in data centers : natural disaster resilience -- Fire protection and life safety design in data |

centers -- Reliability engineering for data centers infrastructures -- Computational fluid dynamics for data centers -- Data center project management -- Data center benchmark metrics -- Data center infrastructure management -- Data center air management -- Energy efficiency assessment of data centers using measurement and management technology -- Drive data center management and build better AI with IT devices as sensors -- Preparing data centers for natural disasters and pandemics.

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## Sommario/riassunto

"A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices. During the 1980s, computers started to be deployed everywhere, in many cases with little or no care about operating requirements. However, as information technology (IT) operations started to grow in complexity, companies grew aware of the need to control IT resources. The availability of inexpensive networking equipment, coupled with new standards for network structured cabling, made it possible to use a hierarchical design that put the servers in a specific room inside the company. The use of the term "data center," as applied to specially designed computer rooms, started to gain popular recognition about this time"--

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