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Titolo	Real-time database systems [[electronic resource]] : architecture and techniques / / edited by Kam-Yiu Lam, Tei-Wei Kuo
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Descrizione fisica	1 online resource (310 p.)
Collana	The Kluwer international series in engineering and computer science ; ; SECS 593
Altri autori (Persone)	LamKam-Yiu <1964-> KuoTei-Wei
Disciplina	004/.33
Soggetti	Database design Real-time data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Overview, Misconceptions, and Issues -- Real-time Database Systems: An Overview of System Characteristics and Issues -- Misconceptions About Real-time Databases -- Applications and System Characteristics -- Real-Time Concurrency Control -- Conservative and Optimistic Protocols -- Semantics-based Concurrency Control -- Real-time Index Concurrency Control -- Run-Time System Management -- Buffer Management in Real-time Active Database Systems -- Disk Scheduling -- System Failure and Recovery -- Overload Management in RTDBs -- Secure Real-time Transaction Processing -- Active Issues and Triggering -- System Framework of ARTDBs -- Reactive Mechanisms -- Updates and View Maintenance -- Distributed Real-Time Database Systems -- Distributed Concurrency Control -- Data Replication and Availability -- Real-time Commit Processing -- Mobile Distributed Real-time Database Systems -- Prototypes and Future Directions -- Prototypes: Programmed Stock Trading -- Future Directions.
Sommario/riassunto	In recent years, tremendous research has been devoted to the design of database systems for real-time applications, called real-time database systems (RTDBS), where transactions are associated with deadlines on

their completion times, and some of the data objects in the database are associated with temporal constraints on their validity. Examples of important applications of RTDBS include stock trading systems, navigation systems and computer integrated manufacturing. Different transaction scheduling algorithms and concurrency control protocols have been proposed to satisfy transaction timing data temporal constraints. Other design issues important to the performance of a RTDBS are buffer management, index accesses and I/O scheduling. Real-Time Database Systems: Architecture and Techniques summarizes important research results in this area, and serves as an excellent reference for practitioners, researchers and educators of real-time systems and database systems.