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Sommario/riassunto	Now in its second edition, this book introduces an approach to active system control. This approach, when applied through design and development improves our technological systems. It extends concepts of system control using data accumulation, state and structural dependencies. The authors define these properties in terms of reliability, performance and energy-efficiency, and self-adaption. They describe how they bridge the gap between data accumulation and analysis in terms of interpolation with the real physical models when data used for interpretation of the system conditions. The authors introduce a principle of active system control and safety - an approach that explains what a model of a system should have, making computer systems more efficient, a crucial new concern in application domains such as safety critical, embedded and low-power autonomous systems like transport, healthcare, and other dynamic systems with moving substances and elements. On a theoretical level, this book further extends the concept of fault tolerance, introducing a system level of design for improving overall efficiency. On a practical level it illustrates how active system approach might help our systems become self-evolving. This updated new edition of Active System Control contains new chapters on the system software concept and the future of active

systems control and a chapter containing case studies of unsolved aviation safety incidents.