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Nota di contenuto	Section I: Electricity Markets -- Section II: Distributed Control for DER Integration -- Section III: Wide-area Control Using Real-time Data -- Section IV: Cyberphysical Security for Smart Grid Control Systems.
Sommario/riassunto	This book focuses on the role of systems and control. Focusing on the current and future development of smart grids in the generation and transmission of energy, it provides an overview of the smart grid control landscape, and the potential impact of the various investigations presented has for technical aspects of power generation and distribution as well as for human and economic concerns such as pricing, consumption and demand management. A tutorial exposition is provided in each chapter, describing the opportunities and challenges that lie ahead. Topics in these chapters include: wide-area control; issues of estimation and integration at the transmission; distribution, consumers, and demand management; and cyber-physical

security for smart grid control systems. The contributors describe the problems involved with each topic, and what impact these problems would have if not solved. The tutorial components and the opportunities and challenges detailed make this book ideal for anyone interested in new paradigms for modernized, smart power grids, and anyone in a field where control is applied. More specifically, it is a valuable resource for students studying smart grid control, and for researchers and academics wishing to extend their knowledge of the topic.