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Nota di contenuto	Preface. -- List of Abbreviations. -- 1 Introduction. -- 2 Feedback Control Basics. -- 3 Channel Modeling. -- 4 Channel Estimation and Prediction. -- 5 Power Control, Part I: Linear Algebra Perspective. -- 6 Power Control II: Control Engineering Perspective. -- 7 Admission and Load Control. -- 8 Combining Different Radio Resources. -- 9 Smart Antennas. -- 10 Cognitive Radios and Networks. -- Bibliography. -- Index.
Sommario/riassunto	This book provides the reader with a complete coverage of radio resource management for 3G wireless communications Systems Engineering in Wireless Communications focuses on the area of radio resource management in third generation wireless communication systems from a systems engineering perspective. The authors provide an introduction into cellular radio systems as well as a review of radio resource management issues. Additionally, a detailed discussion of power control, handover, admission control, smart antennas, joint optimization of different radio resources, and cognitive radio networks is offered. This book differs from books currently available, with its emphasis on the dynamical issues arising from mobile nodes in the

network. Well-known control techniques, such as least squares estimation, PID control, Kalman filers, adaptive control, and fuzzy logic are used throughout the book. Key Features: . Covers radio resource management of 3G wireless communication systems at a systems level. Addresses wireless communications issues using systems engineering methods. Covers the latest research activities in wireless communications and control engineering. Includes an accompanying website containing MATLAB(R)/SIMULINK(R) exercises. Provides illustrations of wireless networks This book will be a valuable reference for graduate and postgraduate students studying wireless communications and control engineering courses, and R&D engineers.