

1. Record Nr.	UNINA9910143193303321
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Titolo	Global positioning systems, inertial navigation, and integration // Mohinder S. Grewal, Lawrence R. Weill, Angus P. Andrews
Pubbl/distr/stampa	Hoboken, NJ, : Wiley-Interscience, c2001
ISBN	1-280-26472-1 9786610264728 0-471-20071-9
Descrizione fisica	1 online resource (415 p.)
Altri autori (Persone)	WeillLawrence R <1938-> (Lawrence Randolph) AndrewsAngus P
Disciplina	629.045 910 910.282
Soggetti	Global Positioning System Inertial navigation Kalman filtering
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	CONTENTS; PREFACE; ACKNOWLEDGMENTS; ACRONYMS; 1 Introduction; 1.1 GPS and GLONASS Overview; 1.2 Differential and Augmented GPS; 1.3 Applications; 2 Fundamentals of Satellite and Inertial Navigation; 2.1 Navigation Systems Considered; 2.2 Fundamentals of Inertial Navigation; 2.3 Satellite Navigation; 2.4 Time and GPS; 2.5 User Position Calculations with No Errors; 2.6 User Velocity Calculation with No Errors; Problems; 3 Signal Characteristics and Information Extraction; 3.1 Mathematical Signal Waveform Models; 3.2 GPS Signal Components, Purposes and Properties; 3.3 Signal Power Levels 3.4 Signal Acquisition and Tracking3.5 Extraction of Information for Navigation Solution; 3.6 Theoretical Considerations in Pseudorange and Frequency Estimation; 3.7 Modernization of GPS; 3.8 GPS Satellite Position Calculations; Problems; 4 Receiver and Antenna Design; 4.1 Receiver Architecture; 4.2 Receiver Design Choices; 4.3 Antenna Design; Problems; 5 GPS Data Errors; 5.1 Selective Availability Errors;

5.2 Ionospheric Propagation Errors; 5.3 Tropospheric Propagation Errors; 5.4 The Multipath Problem; 5.5 How Multipath Causes Ranging Errors; 5.6 Methods of Multipath Mitigation
5.7 Theoretical Limits for Multipath Mitigation
5.8 Ephemeris Data Errors; 5.9 Onboard Clock Errors; 5.10 Receiver Clock Errors; 5.11 Error Budgets; Problems; 6 Inertial Navigation; 6.1 Background; 6.2 Inertial Sensors; 6.3 Navigation Coordinates; 6.4 System Implementations; 6.5 System-Level Error Models; Problems; 7 Kalman Filter Basics; 7.1 Introduction; 7.2 State and Covariance Correction; 7.3 State and Covariance Prediction; 7.4 Summary of Kalman Filter Equations; 7.5 Accommodating Correlated Noise; 7.6 Nonlinear and Adaptive Implementations; 7.7 Kalman-Bucy Filter
7.8 GPS Receiver Examples
Problems; 8 Kalman Filter Engineering; 8.1 More Stable Implementation Methods; 8.2 Implementation Requirements; 8.3 Kalman Filter Monitoring; 8.4 Schmidt-Kalman Suboptimal Filtering; 8.5 Covariance Analysis; 8.6 GPS/INS Integration Architectures; Problems; 9 Differential GPS; 9.1 Introduction; 9.2 LADGPS, WADGPS, and WAAS; 9.3 GEO Uplink Subsystem (GUS); 9.4 GEO Uplink Subsystem (GUS) Clock Steering Algorithms; 9.5 GEO Orbit Determination; Problems; Appendix A: Software; A.1 Chapter 3 Software; A.2 Chapter 5 Software; A.3 Chapter 6 Software; A.4 Chapter 7 Software
A.5 Chapter 8 Software
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Sommario/riassunto

The only comprehensive guide to Kalman filtering and its applications to real-world GPS/INS problems
Written by recognized authorities in the field, this book provides engineers, computer scientists, and others with a working familiarity with the theory and contemporary applications of Global Positioning Systems (GPS), Inertial Navigational Systems, and Kalman filters. Throughout, the focus is on solving real-world problems, with an emphasis on the effective use of state-of-the-art integration techniques for those systems, especially the application of Kalman filtering. To that end, the
