

1. Record Nr.	UNINA9910146069703321
Autore	Tsui James Bao-yen
Titolo	Fundamentals of global positioning system receivers [[electronic resource] ] : a software approach // James Bao-yen Tsui
Pubbl/distr/stampa	New Jersey, : John Wiley & Sons, Inc., c2005
ISBN	1-280-27318-6 9786610273188 0-470-24120-9 0-471-71257-4 0-471-71258-2
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (373 p.)
Collana	Wiley series in microwave and optical engineering
Disciplina	621.384191 910.285
Soggetti	Global Positioning System Geography Electronic books.
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	Fundamentals of Global Positioning System Receivers; Contents; Preface; Preface to the First Edition; Chapter 1 Introduction; 1.1 Introduction; 1.2 History of GPS Development; 1.3 A Basic GPS Receiver; 1.4 Approaches of Presentation; 1.5 Software Approach; 1.6 Potential Advantages of the Software Approach; 1.7 Organization of the Book; References; Chapter 2 Basic GPS Concept; 2.1 Introduction; 2.2 GPS Performance Requirements; 2.3 Basic GPS Concept; 2.4 Basic Equations for Finding User Position; 2.5 Measurement of Pseudorange; 2.6 Solution of User Position from Pseudoranges 2.7 Position Solution with more than Four Satellites 2.8 User Position in Spherical Coordinate System; 2.9 Earth Geometry; 2.10 Basic Relationships in an Ellipse; 2.11 Calculation of Altitude; 2.12 Calculation of Geodetic Latitude; 2.13 Calculation of a Point on the Surface of the Earth; 2.14 Satellite Selection; 2.15 Dilution of Precision; 2.16 Summary; References; Chapter 3 Satellite Constellation; 3.1 Introduction; 3.2 Control Segment of the GPS System; 3.3 Satellite

Constellation; 3.4 Maximum Differential Power Level from Different Satellites; 3.5 Sidereal Day; 3.6 Doppler Frequency Shift  
3.7 Average Rate of Change of the Doppler Frequency; 3.8 Maximum Rate of Change of the Doppler Frequency; 3.9 Rate of Change of the Doppler Frequency Due to User Acceleration; 3.10 Kepler's Laws; 3.11 Kepler's Equation; 3.12 True and Mean Anomaly; 3.13 Signal Strength at User Location; 3.14 Summary; References; Chapter 4 Earth-Centered, Earth-Fixed Coordinate System; 4.1 Introduction; 4.2 Direction Cosine Matrix; 4.3 Satellite Orbit Frame to Equator Frame Transform; 4.4 Vernal Equinox; 4.5 Earth Rotation; 4.6 Overall Transform from Orbit Frame to Earth-Centered, Earth-Fixed Frame  
4.7 Perturbations; 4.8 Correction of GPS System Time at Time of Transmission; 4.9 Calculation of Satellite Position; 4.10 Coordinate Adjustment for Satellites; 4.11 Ephemeris Data; 4.12 Summary; References; Chapter 5 GPS C/A Code Signal Structure; 5.1 Introduction; 5.2 Transmitting Frequency; 5.3 Code Division-Multiple Access (CDMA) Signals; 5.4 P Code; 5.5 C/A Code and Data Format; 5.6 Generation of C/A Code; 5.7 Correlation Properties of C/A Code; 5.8 Navigation Data Bits; 5.9 Telemetry (TLM) and Hand Over Word (HOW); 5.10 GPS Time and the Satellite Z Count; 5.11 Parity Check Algorithm  
5.12 Navigation Data from Subframe 1; 5.13 Navigation Data from Subframes 2 and 3; 5.14 Navigation Data from Subframes 4 and 5- Support Data; 5.15 Ionospheric Model; 5.16 Tropospheric Model; 5.17 Selectivity Availability (SA) and Typical Position Errors; 5.18 Summary; References; Chapter 6 Receiver Hardware Considerations; 6.1 Introduction; 6.2 Antenna; 6.3 Amplification Consideration; 6.4 Two Possible Arrangements of Digitization by Frequency Plans; 6.5 First Component After the Antenna; 6.6 Selecting Sampling Frequency as a Function of the C/A Code Chip Rate  
6.7 Sampling Frequency and Band Aliasing for Real Data Collection

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## Sommario/riassunto

All the expert guidance you need to understand, build, and operate GPS receivers The Second Edition of this acclaimed publication enables readers to understand and apply the complex operation principles of global positioning system (GPS) receivers. Although GPS receivers are widely used in everyday life to aid in positioning and navigation, this is the only text that is devoted to complete coverage of their operation principles. The author, one of the foremost authorities in the GPS field, presents the material from a software receiver viewpoint, an approach that helps readers

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2. Record Nr.	UNINA9910159459603321
Autore	Dixon Timothy H.
Titolo	Curbing catastrophe : natural hazards and risk reduction in the modern world // Timothy H. Dixon
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2017
ISBN	1-108-10958-6 1-108-11026-6 1-108-10549-1 1-139-54734-8 1-108-11094-0 1-108-11162-9 1-108-11434-2
Descrizione fisica	1 online resource (xxi, 300 pages) : digital, PDF file(s)
Classificazione	SCI019000
Disciplina	363.34/7
Soggetti	Natural disasters - Prevention Emergency management Hazard mitigation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 31 Jan 2017).
Nota di contenuto	Machine generated contents note: Preface; 1. Black and white swans, evolution, and markets; 2. What is a natural disaster? Where do they occur, and why? Are they different from human-made disasters?; 3. If we know so much about natural disasters, why are we so vulnerable?; 4. Japanese earthquakes and nuclear power plant failures; 5. Future earthquake disasters in Seattle and Istanbul; 6. Nuclear power, coal, and tuna: the concept of relative risk; 7. Past and future coastal flooding: Galveston, New Orleans, Bangladesh, and the specter of sea level rise; 8. What's all the fuss about global warming?; 9. Solutions; References and further reading; Index; Online appendices: Appendix 1. Additional background material and exercises for students; Appendix 2. Colour figures.
Sommario/riassunto	What does Japan's 2011 nuclear accident have in common with the 2005 flooding of New Orleans from Hurricane Katrina? This thought-

provoking book presents a compelling account of recent and historical disasters, both natural and human-caused, drawing out common themes and providing a holistic understanding of hazards, disasters and mitigation, for anyone interested in this important and topical subject. Based on his on-the-ground experience with several major recent disasters, Timothy H. Dixon explores the science, politics and economics behind a variety of disasters and environmental issues, arguing that many of the worst effects are avoidable. He describes examples of planning and safety failures, provides forecasts of future disasters and proposes solutions for hazard mitigation. The book shows how billions of dollars and countless lives could be saved by adopting longer-term thinking for infrastructure planning and building, and argues that better communication is vital in reducing global risks and preventing future catastrophes.

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