1. Record Nr. UNINA9911006556903321

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Titolo	Design of multi-frequency CW radars / / M. Jankiraman
Pubbl/distr/stampa	Raleigh, NC : , : SciTech Pub., , 2007
ISBN	1-5231-3213-2 1-61353-132-X
Descrizione fisica	1 online resource (374 p.)
Disciplina	621.3848
Soggetti	Shortwave radio Radar
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; List of Acronyms; Description of Software in CD; Part I: Fundamentals of CW Radar; Chapter 1: Frequency Modulated Continuous (FMCW) Wave Radar; 1.1 FMCW Radar Characteristics; 1.2 Range Equation for FMCW Radar; 1.3 Intercept Range of FMCW Radar; 1.4 Commercial FMCW Radars; 1.4.1 The PILOT Radar; 1.5 Experimental Air Search CW Radar; 1.5.1 Miscellaneous Uses of LPI Radars; 1.6 A Survey Of This Book; Chapter 2: Radar Waveforms and Processing; 2.1 Radar Signals; 2.2 CW Waveform; 2.3 Range Resolution; 2.3.1 Amplitude Modulation 2.3.2 Frequency and Phase Modulation2.3.2.1 Frequency Modulated Continuous Wave; 2.3.3 Stepped Frequency Waveform; 2.3.4 Phase-Coded Signal Compression; 2.3.5 Stretch; 2.3.6 Interrupted FMCW; 2.3.7 Side Lobes and Weighting for Linear FM Systems; 2.3.8 Linear Frequency Modulation Waveforms; 2.4 Matched Filter; Chapter 3: The Radar Ambiguity Function; 3.1 INTRODUCTION; 3.2 EXAMPLES OF AMBIGUITY FUNCTIONS; 3.2.1 Single-Frequency Pulse; 3.2.2 Linear FM Pulse; 3.2.3 Stepped Frequency Waveform; Chapter 4: FMCW Waveform; 4.1 INTRODUCTION; 4.2 WAVEFORM COMPRESSION; 4.2.1 Time-Bandwidth Product 4.2.2 LFM Waveform Compression4.3 FMCW SYSTEM; 4.4 ADVANTAGES OF AN FMCW SYSTEM; 4.5 BASIC EQUATIONS OF FMCW RADARS; 4.5.1 The FMCW Equation; 4.6 TRIANGULAR WAVEFORM; 4.7 EFFECT OF SWEEP TIME ON RANCE RESOLUTION; 4.8 EFFECT OF RECEIVER

FREQUENCY RESOLUTION AND TARGET SPECTRAL WIDTHON RANGE RESOLUTION; 4.9 CONCEPT OF INSTRUMENTED RANGE; 4.10 NON-LINEARITY IN FM WAVEFORMS; 4.10.1 Coherent Processing Interval; 4.11 IT ALL COMES TOGETHER. APPLICATION: BRIMSTONE ANTITANK MISSILE; 4.11.1 System Specifications; 4.11.2 Seeker Specifications (Known; 4.11.3 Operational Procedure
4.11.4 System Performance (Speculated)4.12 SUMMARY; Chapter 5: Phase-Coded Waveform; 5.1 INTRODUCTION; 5.2 PHASE-CODED RADAR SIGNALS; 5.2.1 Barker Coding; 5.2.2 Frank Codes; 5.3 PERIODIC AMBIGUITY FUNCTION; 5.4 PERIODIC AUTOCORRELATION FUNCTION; 5.5 CUTS OF PAF ALONG DELAY AND DOPPLER AXES; 5.6 PAF AND PACF OF FRANK CODES; 5.7 MATCHED FILTER FOR PHASE-CODED SIGNALS; 5.8 POLYPHASE CODES; 5.8.1 P1 Codes; 5.8.2 P2 Codes; 5.8.3 P3 Codes; 5.8.4 P4 Codes; 5.9 PERFORMANCE ANALYSIS OF PHASE-CODED SIGNALS; Chapter 6: Frequency Hopped Waveform; 6.1 INTRODUCTION
6.2 FREQUENCY HOPPED SIGNALS AS LPI SIGNALS6.3 STEPPED FREQUENCY WAVEFORM; 6.3.1 Range Resolution and Range Ambiguity; 6.3.2 Effect of Target Velocity; 6.4 RANDOM FREQUENCY HOPPED WAVEFORMS; 6.5 TECHNOLOGY FOR SFCW; 6.6 HYBRID FSK/LFM TECHNIQUE; Part II: Theory and Design of Calypso FMCW Radar; Chapter 7 Calypso FMCW Radar*; 7.1 Introduction; 7.2 Calypso Design Parameters; 7.3 Doppler Tolerance; 7.4 Beam Patterns/Coverage Diagram; 7.5 FMCW Description; 7.6 Receiver Noise Figure; 7.7 AM Noise Cancellation; 7.8 FM Noise Cancellation; 7.9 IF Amplifier; 7.10 ANTI-ALIAS FILTER AND ADC
7.11 Control Circuitry

Sommario/riassunto

This book deals with the basic theory for design and analysis of Low Probability of Intercept (LPI) radar systems. The design of one such multi-frequency high resolution LPI radar, PANDORA, is covered.