Record Nr. UNINA9910812394003321 Autore Yanushevsky Rafael **Titolo** Guidance of unmanned aerial vehicles / / Rafael Yanushevsky Pubbl/distr/stampa Boca Raton, Fla.:,: CRC Press,, 2011 **ISBN** 0-429-10989-X 1-4398-5096-8 Edizione [1st edition] Descrizione fisica 1 online resource (376 p.) Disciplina 629.135 Soggetti Guidance systems (Flight) Drone aircraft Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "A CRC title." Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Front cover; Dedication; Contents; Preface; About the Author; Chapter 1. Basics of Guidance; Chapter 2. Control of Lateral Motion; Chapter 3. Control of Longitudinal and Lateral Motions; Chapter 4. Analysis of Proportional Navigation Guided Systems in the Time Domain; Chapter 5. Analysis of Proportional Navigation Guided Systems in the Frequency Domain; Chapter 6. Design of Guidance Laws Implementing Parallel Navigation. Frequency-Domain Approach; Chapter 7. Guidance Law Performance Analysis under Stochastic Inputs; Chapter 8. Guidance of UAVs; Chapter 9. Testing Guidance Laws Performance Chapter 10. Integrated DesignChapter 11. Guidance Laws for Boost-Phase Interceptors Launched from UAVs; Glossary; Appendix A; Appendix B; Appendix C; Appendix D; Back cover Sommario/riassunto Written by an expert with more than 30 years of experience, Guidance of Unmanned Aerial Vehicles contains new analytical results, taken from the author's research, which can be used for analysis and design of unmanned aerial vehicles guidance and control systems. This book progresses from a clear elucidation of guidance laws and unmanned aerial vehicle dynamics to the modeling of their guidance and control systems. Special attention is paid to guidance of autonomous UAVs, which differs from traditional missile guidance. The author explains

UAV applications, con