

1. Record Nr.	UNINA9910483509103321
Autore	Bi Xin
Titolo	Environmental perception technology for unmanned systems // Xin Bi
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2021] ©2021
ISBN	981-15-8093-6
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XII, 252 p. 199 illus., 149 illus. in color.)
Collana	Unmanned System Technologies
Disciplina	623.74
Soggetti	Vehicles, Remotely piloted
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Overview of the Autonomous Unmanned Systems -- Millimeter Wave Radar Technology -- Lidar Technology -- Machine Vision -- Other Sensors -- Multi-sensor Fusion Technology -- Positioning and Navigation Technology -- Path Planning.
Sommario/riassunto	This book focuses on the principles and technology of environmental perception in unmanned systems. With the rapid development of a new generation of information technologies such as automatic control and information perception, a new generation of robots and unmanned systems will also take on new importance. This book first reviews the development of autonomous systems and subsequently introduces readers to the technical characteristics and main technologies of the sensor. Lastly, it addresses aspects including autonomous path planning, intelligent perception and autonomous control technology under uncertain conditions. For the first time, the book systematically introduces the core technology of autonomous system information perception. .