

1. Record Nr.	UNINA9910523887003321
Autore	Jondhale Satish R
Titolo	Received Signal Strength Based Target Localization and Tracking Using Wireless Sensor Networks // by Satish R. Jondhale, R. Maheswar, Jaime Lloret
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-030-74061-7
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (XV, 205 p. 164 illus., 131 illus. in color.)
Collana	EAI/Springer Innovations in Communication and Computing, , 2522-8609
Disciplina	621.382
Soggetti	Telecommunication Cooperating objects (Computer systems) Software engineering Communications Engineering, Networks Cyber-Physical Systems Software Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 . Fundamentals of Wireless Sensor Networks -- Chapter 2. Target Localization and Tracking using WSN -- Chapter 3. Survey of Existing RSSI Based Target L&T Systems -- Chapter 4. Trilateration Based Target L&T Using RSSI -- Chapter 5. KF Based Target L&T Using RSSI -- Chapter 6. GRNN Based Target L&T Using RSSI -- Chapter 7. Supervised Learning Architectures Based Target L&T Using RSSI.
Sommario/riassunto	This book briefly summarizes the current state of the art technologies and solutions for location and tracking (L&T) in wireless sensor networks (WSN), focusing on RSS-based schemes. The authors offer broad and in-depth coverage of essential topics including range-based and range-free localization strategies, and signal path loss models. In addition, the book includes motion models and how state estimation techniques and advanced machine learning techniques can be utilized to design L&T systems for a given problem using low cost measurement metric (that is RSS). This book also provides MATLAB

examples to demonstrate fundamental algorithms for L&T and provides online access to all MATLAB codes. The book allows practicing engineers and graduate students to keep pace with contemporary research and new technologies in the L&T domain. Presents a variety of perspectives on real time location and tracking (L&T) problems and low cost solutions; Allows readers to simulate L&T systems and validate them using real time measurements; Includes MATLAB based examples, codes and illustration of obtained results.
