

1. Record Nr.	UNINA9910512164303321
Autore	Zhai Chao
Titolo	Cooperative coverage control of multi-agent systems and its applications // Chao Zhai, Hai-Tao Zhang and Gaoxi Xiao
Pubbl/distr/stampa	Singapore : , : Springer, , [2021] ©2021
ISBN	981-16-7625-9
Descrizione fisica	1 online resource (151 pages)
Collana	Studies in Systems, Decision and Control ; ; v.408
Disciplina	621.811
Soggetti	Sistemes multiagent Multibody systems - Mathematical models Multibody systems - Computer programs Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Acknowledgements -- Contents -- Acronyms and Notation -- Acronyms -- Notation -- 1 Introduction to Multi-agent Cooperative Coverage Control -- 1.1 Background -- 1.2 State of the Art -- 1.3 Outline of the Book -- References -- 2 Distributed Control Scheme for Online Workload Partition -- 2.1 Introduction -- 2.2 Problem Statement -- 2.3 Theoretical Analysis -- 2.4 Simulation Results -- 2.5 Conclusions -- References -- 3 Decentralized Cooperative Sweep Coverage Algorithm in Uncertain Environments -- 3.1 Introduction -- 3.2 Formulation and Coverage Algorithm -- 3.3 Technical Analysis -- 3.3.1 Key Lemmas -- 3.3.2 Main Results -- 3.4 Simulation Results -- 3.5 Conclusions -- References -- 4 Adaptive Cooperative Coverage Algorithm with Online Learning Strategies -- 4.1 Introduction -- 4.2 Problem Formulation -- 4.3 Technical Analysis -- 4.4 Conclusions -- References -- 5 Distributed Sweep Coverage Algorithm Using Workload Memory -- 5.1 Introduction -- 5.2 Problem Formulation -- 5.3 Key Lemmas -- 5.4 Stability Analysis -- 5.5 Numerical Simulations -- 5.6 Conclusions -- References -- 6 Cooperative Sweep Coverage Algorithm of Discrete Time Multi-agent Systems -- 6.1 Introduction -- 6.2 Problem Formulation -- 6.3 Main

Results -- 6.4 Simulations -- 6.5 Conclusions -- References -- 7
Coverage-Based Cooperative Interception Against Supersonic Flight
Vehicles -- 7.1 Introduction -- 7.2 Problem Formulation -- 7.3 Main
Results -- 7.4 Numerical Simulation -- 7.5 Conclusions -- References
-- 8 Coverage-Based Cooperative Routing Algorithm for Unmanned
Ground Vehicles -- 8.1 Introduction -- 8.2 Basic Idea -- 8.3 Routing
Algorithm -- 8.4 Simulation Results -- 8.5 Conclusions -- References
-- 9 Cooperative Coverage Control of Wireless Sensor Networks for
Environment Monitoring -- 9.1 Introduction -- 9.2 Problem Statement
-- 9.3 Main Results.
9.3.1 Coverage Region Without Obstacles -- 9.3.2 Coverage Region
with Obstacles -- 9.4 Numerical Simulation -- 9.5 Conclusions --
References -- 10 Summary and Future Work -- 10.1 Summary -- 10.2
Future Work -- Appendix Mathematical Concepts -- A.1 Algebraic
Graph Theory -- A.2 Input-to-State Stability -- References.
