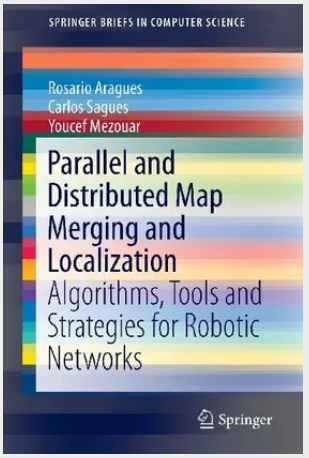
Aragues / Sagüés / Mezouar

Parallel and Distributed Map Merging and Localization

Algorithms, Tools and Strategies for Robotic Networks



This work examines the challenges of distributed map merging and localization in multi-robot systems, which enables robots to acquire the knowledge of their surroundings needed to carry out coordinated tasks. After identifying the main issues associated with this problem, each chapter introduces a different distributed strategy for solving them.

In addition to presenting a review of distributed algorithms for perception in localization and map merging, the text also provides the reader with the necessary tools for proposing new solutions to problems of multi-robot perception, as well as other interesting topics related to multi-robot scenarios.

The coverage is largely self-contained, supported by numerous explanations and demonstrations, although references for further study are also supplied. The reader will not require any prior background knowledge, other than a basic understanding of mathematics at a graduate-student level.

This work examines the challenges of distributed map merging and localization in multi-robot systems, which enables robots to acquire the knowledge of their surroundings needed to carry out coordinated tasks. After identifying the main issues associated with this problem, each chapter introduces a different distributed strategy for solving them. In addition to presenting a review of distributed algorithms for perception in localization and map merging, the text also provides the reader with the necessary tools for proposing new solutions to problems of multi-robot perception, as well as other interesting topics related to multi-robot scenarios. The coverage is largely self-contained, supported by numerous explanations and demonstrations, although references for further study are also supplied. The reader will not require any prior background knowledge, other than a basic understanding of mathematics at a graduate-student level.

53,49 €
49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783319258843
Medium: Buch
ISBN: 978-3-319-25884-3
Verlag: Palgrave Macmillan
Erscheinungstermin: 10.11.2015
Sprache(n): Englisch
Auflage: 1. Auflage 2015
Serie: SpringerBriefs in Computer Science
Produktform: Kartoniert
Gewicht: 201 g
Seiten: 116
Format (B x H): 155 x 235 mm

Kundenservice Verlag Dr. Otto Schmidt KG
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)