

Preface

Mobile robots and Wireless Sensor Networks (WSNs) have enabled great potentials and a large space for ubiquitous and pervasive applications. Robotics and WSNs have mostly been considered as separate research fields and little work has investigated the marriage between these two technologies. However, these two technologies share several features, enable common cyber-physical applications, and provide complementary support to each other. The primary objective of the book is to provide a reference for cutting-edge studies and research trends pertaining to robotics and sensor networks, and in particular for the coupling between them.

The book consists of five chapters. [Chapter 1](#) presents a cooperation strategy for teams of multiple autonomous vehicles to solve the rendezvous problem. [Chapter 2](#) is motivated by the need to improve existing solutions that deal with connectivity prediction, and proposed a genetic machine learning approach for link-quality prediction. [Chapter 3](#) presents an architecture for indoor navigation using an Android smartphone for guiding a variety of users, from sighted to the visually impaired, to their intended destination. In [Chapter 4](#), the authors deal with accurate prediction modeling of ocean currents for underwater glider navigation. In [Chapter 5](#), the authors discuss the challenges and limitations of RSS-based localization mechanisms and propose, EasyLoc, an autonomous and practical RSS-based localization technique that satisfies ease of development and implementation.

Cooperative Robots and Sensor Networks

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