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# Wireless Indoor Localization

A Crowdsourcing Approach

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# Wireless Indoor Localization

A Crowdsourcing Approach

- Inspires numerous ubiquitous applications based on wireless indoor localization
- Reports the cutting-edge findings of world's leading research lab on indoor localization
- As the first of its kind book introducing WiFi fingerprint based localization in a crowdsourcing perspective
- Covers three key issues in WiFi-based indoor localization: deployment, maintenance and location accuracy

This book provides a comprehensive and in-depth understanding of wireless indoor localization for ubiquitous applications. The past decade has witnessed a flourishing of WiFi-based indoor localization, which has become one of the most popular localization solutions and has attracted considerable attention from both the academic and industrial communities. Specifically focusing on WiFi fingerprint based localization via crowdsourcing, the book follows a top-down approach and explores the three most important aspects of wireless indoor localization: deployment, maintenance, and service accuracy. After extensively reviewing the state-of-the-art literature, it highlights the latest advances in crowdsourcing-enabled WiFi localization. It elaborated the ideas, methods and systems for implementing the crowdsourcing approach for fingerprint-based localization. By tackling the problems such as: deployment costs of fingerprint database construction, maintenance overhead of fingerprint database updating, floor plan generation, and location errors, the book offers a valuable reference guide for technicians and practitioners in the field of location-based services. As the first of its kind, introducing readers to WiFi-based localization from a crowdsourcing perspective, it will greatly benefit and appeal to scientists and researchers in mobile and ubiquitous computing and related areas.

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