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	Titolo	Indoor Location-Based Services : Prerequisites and Foundations / / by Martin Werner
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	ISBN	3-319-10699-6
	Edizione	[1st ed. 2014.]
	Descrizione fisica	1 online resource (240 p.)
	Disciplina	004 004.6 005.7 910285
	Soggetti	Application software Computer networks Geographic information systems Computers, Special purpose Information Systems Applications (incl. Internet) Computer Communication Networks Geographical Information Systems/Cartography Computer Applications Special Purpose and Application-Based Systems
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	1 Introduction -- 2 Prerequisites -- 3 Basic Positioning Techniques -- 4 Building Modelling -- 5 Position Refinement -- 6 Trajectory Computing -- 7 Event Detection for Indoor LBS -- 8 Simultaneous Localization and Mapping in Buildings -- 9 Privacy and Security Considerations -- 10 Open Problem Spaces.
	Sommario/riassunto	This book delivers concise coverage of classical methods and new developments related to indoor location-based services. It collects results from isolated domains including geometry, artificial intelligence, statistics, cooperative algorithms, and distributed systems and thus

provides an accessible overview of fundamental methods and technologies. This makes it an ideal starting point for researchers, students, and professionals in pervasive computing. Location-based services are services using the location of a mobile computing device as their primary input. While such services are fairly easy to implement outside buildings thanks to accessible global positioning systems and high-quality environmental information, the situation inside buildings is fundamentally different. In general, there is no simple way of determining the position of a moving target inside a building without an additional dedicated infrastructure. The book's structure is learning oriented, starting with a short introduction to wireless communication systems and basic positioning techniques and ending with advanced features like event detection, simultaneous localization and mapping, and privacy aspects. Readers who are not familiar with the individual topics will be able to work through the book from start to finish. At the same time all chapters are self-contained to support readers who are already familiar with some of the content and only want to pick selected topics that are of particular interest.