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Autore	Li Shujun
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Descrizione fisica	1 online resource (171 p.)
Collana	Analog circuits and signal processing
Altri autori (Persone)	KokarMieczyslaw M
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Soggetti	Cognitive radio networks Wireless communication systems
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Cognitive Radio Architecture -- Collaborative Adaptation -- Signaling Options -- Agent Communication Language -- An Example: Collaborative Link Adaptation -- Knowledge and Interference -- Cognitive Radio Ontology -- Implementation of Collabortive Link Optimization -- Evaluations -- Typical Knobs -- Cognitive Radio Ontology.
Sommario/riassunto	This book provides an introduction to software-defined radio and cognitive radio, along with methodologies for applying knowledge representation, semantic web, logic reasoning and artificial intelligence to cognitive radio, enabling autonomous adaptation and flexible signaling. Readers from the wireless communications and software-defined radio communities will use this book as a reference to extend software-defined radio to cognitive radio, using the semantic technology described. Readers with a background in semantic web and artificial intelligence will find in this book the application of semantic web and artificial intelligence technologies to wireless communications. For readers in networks and network management, this book presents a new approach to enable interoperability, collaborative optimization and flexible adaptation of network components. Provides a

comprehensive ontology covering the core concepts of wireless communications using a formal language; Presents the technical realization of using a formal language to exchange control messages, achieving autonomous adaptation of a communications link; Describes an architecture that enables radios to use a formal language to send inquiries and requests to other nodes, accept, interpret and execute such requests using their local policies and modify their own parameters.