

1. Record Nr.	UNINA9910437916803321
Autore	Starczewski Janusz T
Titolo	Advanced concepts in fuzzy logic and systems with membership uncertainty / / Janusz T. Starczewski
Pubbl/distr/stampa	Berlin ; ; New York, : Springer, c2013
ISBN	9783642295201 3642295207
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (XII, 308 p.)
Collana	Studies in fuzziness and soft computing, , 1434-9922 ; ; 284
Disciplina	511.3/223
Soggetti	Fuzzy sets Uncertainty (Information theory) Fuzzy logic
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Uncertainty in Fuzzy Sets -- Algebraic Operations on Fuzzy Valued Fuzzy Sets -- Defuzzification of Uncertain Fuzzy Sets -- Generalized Uncertain Fuzzy Logic Systems -- Uncertainty Generation in Uncertain Fuzzy Logic Systems -- Designing Uncertain Fuzzy Logic Systems.
Sommario/riassunto	This book generalizes fuzzy logic systems for different types of uncertainty, including - semantic ambiguity resulting from limited perception or lack of knowledge about exact membership functions - lack of attributes or granularity arising from discretization of real data - imprecise description of membership functions - vagueness perceived as fuzzification of conditional attributes. Consequently, the membership uncertainty can be modeled by combining methods of conventional and type-2 fuzzy logic, rough set theory and possibility theory. In particular, this book provides a number of formulae for implementing the operation extended on fuzzy-valued fuzzy sets and presents some basic structures of generalized uncertain fuzzy logic systems, as well as introduces several of methods to generate fuzzy membership uncertainty. It is desirable as a reference book for under-graduates in higher education, master and doctor graduates in the courses of computer science, computational intelligence, or fuzzy control and classification, and is especially dedicated to researchers

and practitioners in industry. .

---