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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Part I: Uncertainty Modeling Chapter 1. Rough Sets and other Mathematics: Ten Research Programs Chapter 2. Dealing with Uncertainty: From Rough Sets to Interactive Rough-Granular Computing Chapter 3. An Evolutionary Approach to Secondary Membership Function Selection in Generalized Type- 2 Fuzzy Sets Chapter 4. Specificity based defuzzification in approximate reasoning Chapter 5. Proto-fuzzy Concepts Generation Technique Using Fuzzy Graph Part II: Logic of Uncertainty Chapter 6. Open World Models: a View from Rough Set Theory Chapter 7. Approximate reasoning under type-2 fuzzy logics Chapter 8. Approximation Dialectics of Proto- Transitive Rough Sets Part III: Hybridization of Uncertainties Chapter 9. A Probabilistic Approach to Information System and Rough Set Theory Chapter 10. Uncertainty Analysis of Contaminant Transportation Through Ground Water Using Fuzzy-Stochastic Response Surface Chapter 11. Development of a Fuzzy Random Health Risk Model Chapter 12. Uncertainty Analysis of Retardation factor using Monte Carlo, Fuzzy set and Hybrid Approach Part IV: Roll of Uncertainties Chapter 13. Two Person Interaction Detection Using Kinect Sensor Chapter 14. An Improved Genetic Algorithm and Its Application in Constrained Solid TSP in Uncertain Environments Chapter 15. A Novel Soft theoretic AHP Model for Project Management in Multi-Criteria Decision Making Problem Chapter 16. An Application of Weighted Neutrosophic Soft Sets in a Decision Making Problem Chapter 17. Approximate Reasoning in Management of Hypertension Chapter 18. The Hesitant Fuzzy Soft Set and its Application in Decision Making Chapter 19. On Fuzzy Ideal Cone Method to Capture Entire Fuzzy Non-dominated Set of Fuzzy Multi- criteria Optimization Problems with Fuzzy Parameters Chapter 20. A Bi-Objective Solid Transportation Model under Uncertain Environment Chapter 21. A Food web Population Model in Deterministic and Stochastic Environment Chapter 22. Computational Method fo
Sommario/riassunto	Since the emergence of the formal concept of probability theory in the seventeenth century, uncertainty has been perceived solely in terms of probability theory. However, this apparently unique link between uncertainty and probability theory has come under investigation a few decades back. Uncertainties are nowadays accepted to be of various kinds. Uncertainty in general could refer to different sense like not certainly known, questionable, problematic, vague, not definite or determined, ambiguous, liable to change, not reliable. In Indian languages, particularly in Sanskrit-based languages, there are other higher levels of uncertainties. It has been shown that several mathematical concepts such as the theory of fuzzy sets, theory of rough sets, evidence theory, possibility theory, theory of complex systems and complex network, theory of fuzzy measures and uncertainty theory can also successfully model uncertainty.