

1. Record Nr.	UNINA9910299775003321
Titolo	Facets of Uncertainties and Applications : ICFUA, Kolkata, India, December 2013 // edited by Mihir K. Chakraborty, Andrzej Skowron, Manoranjan Maiti, Samarjit Kar
Pubbl/distr/stampa	New Delhi : , : Springer India : , : Imprint : Springer, , 2015
ISBN	81-322-2301-2
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (339 p.)
Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1017 ; ; 125
Disciplina	005.131 006.3 510 511.3 519 570.285 621.382
Soggetti	Logic, Symbolic and mathematical System theory Biomathematics Machine theory Artificial intelligence Signal processing Mathematical Logic and Foundations Complex Systems Mathematical and Computational Biology Formal Languages and Automata Theory Artificial Intelligence Signal, Speech and Image Processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The international conference on "Facets of Uncertainties and Applications" (ICFUA 2013) was organized under the joint collaboration of the Operational Research Society of India (the Calcutta chapter) and Department of Applied Mathematics, University of Calcutta."--Preface.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.

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 for High-order Weighted Fuzzy Time Series Forecasting Based on Multiple Partitions -- Chapter 23. Portfolio Selection with Possibilistic Kurtosis -- Chapter 24. Conflicting Bifuzzy Preference Relations based Method for Multi Criteria Decision Making Problems -- Chapter 25. A Linear Goal Programming Method for Solving Chance Constrained Multi objective Problems with Interval Data Uncertainty. .

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.