1. Record Nr. UNINA9910299586803321 Autore Mathew Sunil Titolo Fuzzy Graph Theory / / by Sunil Mathew, John N. Mordeson, Davender S. Malik Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-319-71407-4 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (XVII, 320 p. 171 illus.) Collana Studies in Fuzziness and Soft Computing, , 1434-9922; ; 363 511.5 Disciplina Soggetti Computational intelligence Graph theory Artificial intelligence Game theory Computational Intelligence **Graph Theory** Artificial Intelligence Game Theory, Economics, Social and Behav. Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Fuzzy Sets and Relations -- Fuzzy Graphs -- Connectivity in Fuzzy Nota di contenuto Graphs -- More on Blocks in Fuzzy Graphs -- More on Connectivity and Distances -- Sequences, Saturation, Intervals and Gates in Fuzzy Graphs -- Interval-Valued Fuzzy Graphs -- Bipolar Fuzzy Graphs. This book provides a timely overview of fuzzy graph theory, laying the Sommario/riassunto foundation for future applications in a broad range of areas. It introduces readers to fundamental theories, such as Craine's work on fuzzy interval graphs, fuzzy analogs of Marczewski's theorem, and the Gilmore and Hoffman characterization. It also introduces them to the Fulkerson and Gross characterization and Menger's theorem, the applications of which will be discussed in a forthcoming book by the same authors. This book also discusses in detail important concepts such as connectivity, distance and saturation in fuzzy graphs. Thanks to the good balance between the basics of fuzzy graph theory and new

findings obtained by the authors, the book offers an excellent

reference guide for advanced undergraduate and graduate students in mathematics, engineering and computer science, and an inspiring read for all researchers interested in new developments in fuzzy logic and applied mathematics.