Record Nr. UNINA9910483572303321 Autore Akram Muhammad Titolo Graphs for the analysis of bipolar fuzzy information / / Muhammad Akram, Musavarah Sarwar and Wieslaw A. Dudek Pubbl/distr/stampa Gateway East, Singapore: ,: Springer, , [2021] ©2021 **ISBN** 981-15-8756-6 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XXVIII, 452 p. 241 illus., 2 illus. in color.) Studies in Fuzziness and Soft Computing, , 1434-9922;; 401 Collana Disciplina 510 Soggetti Graph theory Fuzzy mathematics Fuzzy graphs Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Chapter 1: Bipolar Fuzzy Sets and Bipolar Fuzzy Graphs -- Chapter 2: Nota di contenuto Distance Measures in Bipolar Fuzzy Graphs -- Chapter 3: Special Types of Bipolar Fuzzy Graphs -- Chapter 4: Bipolar Fuzzy Competition Graphs -- Chapter 5: Bipolar Fuzzy Planar Graphs -- Chapter 6: Domination in Bipolar Fuzzy Graphs -- Chapter 7: Bipolar Fuzzy Circuits -- Chapter 8: Energy in Bipolar Fuzzy Graphs -- Chapter 9: Bipolar Neutrosophic Competition Graphs -- Chapter 10: Bipolar Neutrosophic Graph Structures. This monograph discusses decision making methods under bipolar Sommario/riassunto fuzzy graphical models with the aim of overcoming the lack of mathematical approach towards bipolar information—positive and negative. It investigates the properties of bipolar fuzzy graphs, their distance functions, and concept of their isomorphism. It presents certain notions, including irregular bipolar fuzzy graphs, domination in bipolar fuzzy graphs, bipolar fuzzy circuits, energy in bipolar fuzzy graphs, bipolar single-valued neutrosophic competition graphs, and bipolar neutrosophic graph structures. This book also presents the

applications of mentioned concepts to real-world problems in areas of product manufacturing, international relations, psychology, global terrorism and more, making it valuable for researchers, computer

scientists, social scientists and alike.