Record Nr. UNINA9910254317303321 Autore **Dekkers Rob** Titolo Applied Systems Theory / / by Rob Dekkers Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-57526-0 **ISBN** Edizione [2nd ed. 2017.] Descrizione fisica 1 online resource (XXXV, 315 p. 88 illus.) 670 Disciplina Soggetti Industrial engineering Production engineering Production management Mathematical models Industrial design Operations research **Decision making** Industrial and Production Engineering **Operations Management** Mathematical Modeling and Industrial Mathematics Industrial Design Operations Research/Decision Theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Introduction -- Basic Concepts -- System Approaches -- Processes --Control of Processes -- Steady-State Model -- Autopoietic Systems --Complex Adaptive Systems -- Organisations and Breakthrough --Applications of System Theories. Offering an up-to-date account of systems theories and its Sommario/riassunto applications, this book provides a different way of resolving problems and addressing challenges in a swift and practical way, without losing overview and grip on the details. From this perspective, it offers a

different way of thinking in order to incorporate different perspectives and to consider multiple aspects of any given problem. Drawing

examples from a wide range of disciplines, it also presents worked cases to illustrate the principles. The multidisciplinary perspective and the formal approach to modelling of systems and processes of 'Applied Systems Theory' makes it suitable for managers, engineers, students, researchers, academics and professionals from a wide range of disciplines; they can use this 'toolbox' for describing, analysing and designing biological, engineering and organisational systems as well as getting a better understanding of societal problems. This revised, updated and expanded second edition includes coverage of abductive reasoning, the relevance of systems theories for research methods and a new chapter about problem analysis and solving based on systems theories.