1. Record Nr. UNINA9910299704103321 Autore Hasegawa Yasumichi Titolo Control problems of discrete-time dynamical systems // by Yasumichi Hasegawa Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-14630-0 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (241 p.) Collana Studies in Systems, Decision and Control, , 2198-4182;; 19 Disciplina 003.83 Soggetti Automatic control Computational intelligence System theory Control and Systems Theory Computational Intelligence Systems Theory, Control Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Introduction -- Input/output Map and Performance Function for Control Problem -- Control Laws and Adaptive Control of Linear Systems -- Control Laws and Adaptive Control of So-called Linear Systems -- Control Laws and Adaptive Control of Almost Linear Systems -- Control Laws and Adaptive Control of Pseudo Linear Systems -- Control Laws of Affine Dynamical Systems -- Control Laws of Linear Representation Systems. Sommario/riassunto This monograph deals with control problems of discrete-time dynamical systems which include linear and nonlinear input/output relations In its present second enlarged edition the control problems of linear and non-linear dynamical systems will be solved as algebraically as possible. Adaptive control problems are newly proposed and solved for dynamical systems which satisfy the time-invariant condition. The monograph provides new results and their extensions which can also be more applicable for nonlinear dynamical systems. A new method which produces manipulated inputs is presented in the sense of state

control and output control. To present the effectiveness of the method,

many numerical examples of control problems are provided as well. .