Record Nr. UNINA9910299625403321 Autore Firoozian Riazollah Titolo Servo Motors and Industrial Control Theory / / by Riazollah Firoozian Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2014 3-319-07275-7 **ISBN** Edizione [2nd ed. 2014.] Descrizione fisica 1 online resource (VII, 237 p. 202 illus., 19 illus. in color.) Collana Mechanical Engineering Series, , 0941-5122 Disciplina 629.8323 Soggetti Energy systems Mechanical engineering Power electronics Industrial engineering Production engineering **Energy Systems** Mechanical Engineering Power Electronics, Electrical Machines and Networks Industrial and Production Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Feedback Control Theory -- Feedback Control Theory Continued --State Variable Feedback Control Theory -- Electrical DC Servo Motors -- Electrical DC Servo Motors -- AC Servo Motors -- Electrohydraulic Servo Motors -- Actuators Based on Electro-Rheological Fluid -- The Choice and Comparison of Servo Motors. Sommario/riassunto Servo Motors and Industrial Control Theory is the only text focused on the fundamentals of servo motors and control theory. Graphical methods for classical control theory have been augmented with worked examples using MatLab and Mathcad to reflect the reality of the way engineers solve control problems in the field today. State variable feedback control theory is introduced clearly and simply, with practical examples that help students approach what can be seen as complicated problems with confidence. This updated second edition includes expanded discussion of Nyquist and Root Locus stability criteria and

the role of sensors, as well as new Mathcad examples. A range of

parameters are introduced for each servo control system discussed, making this book a comprehensive learning tool for students and an accessible information resource for control system designers who want to keep their knowledge up-to-date.