1. Record Nr. UNINA9910140878803321 Autore Sul Seung-Ki Titolo Control of electric machine drive system / / S. Sul Pubbl/distr/stampa [S.I.]:,: Wiley,, 2011 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2010] **ISBN** 1-118-09956-7 0-470-87654-9 1-299-18610-6 0-470-87655-7 Descrizione fisica 1 online resource (XVI, 399 p.) Collana IEEE Press Series on Power Engineering;; 55 Classificazione TEC031000 Disciplina 621.46 Soggetti Electric driving - Automatic control Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Preface -- 1 Introduction -- 1.1 Introduction -- 1.2 Basics of Mechanics -- 1.3 Torque Speed Curve of Typical Mechanical Loads -- 2 Basic Structure and Modeling of Electric Machines and Power Converters -- 2.1 Structure and Modeling of DC Machine -- 2.2 Analysis of Steady-State Operation -- 2.3 Analysis of Transient State of DC Machine -- 2.4 Power Electronic Circuit to Drive DC Machine -- 2.5 Rotating Magnetic Motive Force -- 2.6 Steady-State Analysis of a Synchronous Machine -- 2.7 Linear Electric Machine -- 2.8 Capability Curve of Synchronous Machine -- 2.9 Parameter Variation of Synchronous Machine -- 2.10 Steady-State Analysis of Induction Machine -- 2.11 Generator Operation of an Induction Machine -- 2.12 Variation of Parameters of an Induction Machine -- 2.13 Classification of Induction Machines According to Speed-Torque Characteristics --2.14 Quasi-Transient State Analysis -- 2.15 Capability Curve of an Induction Machine -- 2.16 Comparison of AC Machine and DC Machine -- 2.17 Variable-Speed Control of Induction Machine Based on Steady-State Characteristics -- 2.18 Modeling of Power Converters -- 2.19 Parameter Conversion Using Per Unit Method -- 3 Reference Frame

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## Sommario/riassunto

"This book is based on the author's industry experience. It contains many exercise problems that engineers would experience in their day-to-day work. The book was published in Korean at 500 pages as a textbook. The book will contain over 300 figures. The author plans to have an FTP site to provide some MATLAB programs for selected problems"--

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