1.	Record Nr.	UNINA9910299881803321
	Titolo	Advances in Variable Structure Systems and Sliding Mode Control—Theory and Applications / / edited by Shihua Li, Xinghuo Yu, Leonid Fridman, Zhihong Man, Xiangyu Wang
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
	ISBN	3-319-62896-8
	Edizione	[1st ed. 2018.]
	Descrizione fisica	1 online resource (414 pages) : illustrations
	Collana	Studies in Systems, Decision and Control, , 2198-4182 ; ; 115
	Disciplina	511.326
	Soggetti	Automatic control System theory Control and Systems Theory Systems Theory, Control
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references at the end of each chapters.
	Nota di contenuto	Lyapunov-Based Design of Homogeneous High-Order Sliding Modes. - Robustness of Homogeneous and Homogeneizable Differential Inclusions.- Practical Stability Phase and Gain Margins Concept -- Indirect Adaptive Sliding-Mode Control Using the Certainty-Equivalence Principle.- Discrete Event-Triggered Sliding Mode Control -- Speed Control of Induction Motor Servo Drives Using Terminal Sliding-Mode Controller.- Sliding Modes Control in Vehicle Longitudinal Dynamics Control -- Sliding Mode Control of Power Converters with Switching Frequency Regulation.
	Sommario/riassunto	This book reflects the latest developments in variable structure systems (VSS) and sliding mode control (SMC), highlighting advances in various branches of the VSS/SMC field, e.g., from conventional SMC to high-order SMC, from the continuous-time domain to the discrete-time domain, from theories to applications, etc. The book consists of three parts and 16 chapters: in the first part, new VSS/SMC algorithms are proposed and their properties are analyzed, while the second focuses on the use of VSS/SMC techniques to solve a variety of control problems; the third part examines the applications of VSS/SMC to real-time systems. The book introduces postgraduates and researchers to

the state-of-the-art in VSS/SMC field, including the theory, methodology, and applications. Relative academic disciplines include Automation, Mathematics, Electrical Engineering, Mechanical Engineering, Instrument Science and Engineering, Electronic Engineering, Computer Science and Technology, Transportation Engineering, Energy and Power Engineering, etc.