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Descrizione fisica	1 online resource (xxv, 205 pages) : illustrations (some color)
Collana	Studies in Systems, Decision and Control, , 2198-4182 ; ; 249
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Soggetti	Automatic control Power electronics Sliding mode control
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	General Introduction -- Basic Theory of Sliding Mode Control -- Sliding Mode Observer and its Applications -- Introduction of Proton Exchange Membrane Fuel Cell Systems -- Sliding Mode Control of PEMFC Systems -- Sliding Mode Observer of PEMFC Systems -- Sliding-Mode-Observer-Based Fault Diagnosis of PEMFC Systems -- Sliding Mode Control of DC/DC Power Converters -- Sliding Mode Control of Three-Phase Power Converters.
Sommario/riassunto	This book presents recent advanced techniques in sliding mode control and observer design for industrial power systems, focusing on their applications in polymer electrolyte membrane fuel cells and power converters. Readers will find not only valuable new fault detection and isolation techniques based on sliding mode control and observers, but also a number of robust control and estimation methodologies combined with fuzzy neural networks and extended state observer methods. The book also provides necessary experimental and simulation examples for proton exchange membrane fuel cell systems and power converter systems. Given its scope, it offers a valuable resource for undergraduate and graduate students, academics, scientists and engineers who are working in the field. .