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Altri autori (Persone)	ZhangYongchuan
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Sommario/riassunto	This book delves into the dynamics of hydroelectric generator units, focusing on modeling theories and intelligent fault diagnosis methods. It presents a comprehensive study on the characteristics extraction, optimal pattern recognition, and the development of monitoring and diagnostic systems. The authors aim to enhance the understanding of complex nonlinear dynamics and fault diagnosis within large-scale hydroelectric generator units, addressing the safety and stability challenges they pose. The book is structured into four parts, covering dynamic modeling, signal processing, intelligent reasoning, and system monitoring and diagnostics. It is intended for researchers, engineers, and professionals in the field of hydroelectric power generation, offering theoretical insights and practical applications. The work is notably interdisciplinary, involving engineering mechanics, electrical engineering, and applied mathematics.