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Autore	Yu Xiaolei
Titolo	Semi-physical Verification Technology for Dynamic Performance of Internet of Things System [[electronic resource] /] / by Xiaolei Yu, Donghua Wang, Zhimin Zhao
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Descrizione fisica	1 online resource (XV, 246 p. 158 illus., 100 illus. in color.)
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Soggetti	Telecommunication Vibration Microwaves Electronics Communications Engineering, Networks Vibration, Dynamical Systems, Control Microwaves, RF and Optical Engineering Electronics and Microelectronics, Instrumentation
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Nota di contenuto	Research progress of semi-physical verification technology based on photoelectric sensing -- Multi-antenna optimal receiving theory and semi-physical verification of RFID-MIMO system -- Thermodynamic analysis and semi-physical verification of the effect of temperature on dynamic performance of RFID -- Adaptive analysis and semi - physical verification of RFID multi-tag geometric distribution based on Fisher matrix -- Application of artificial neural network in RFID multi-tag distribution optimization and semi - physical verification -- Optimal distribution and semi-physical verification of RFID multi-tag based on image processing -- Application of semi-physical verification technology in other fields of internet of things.
Sommario/riassunto	This book combines semi-physical simulation technology with an Internet of Things (IOT) application system based on novel mathematical methods such as the Fisher matrix, artificial neural networks, thermodynamic analysis, support vector machines, and

image processing algorithms. The dynamic testing and semi-physical verification of the theory and application were conducted for typical IOT systems such as RFID systems, Internet of Vehicles systems, and two-dimensional barcode recognition systems. The findings presented are of great scientific significance and have wide application potential for solving bottlenecks in the development of RFID technology and IOT engineering. The book is a valuable resource for postgraduate students in fields such as computer science and technology, control science and engineering, and information science. Moreover, it is a useful reference resource for researchers in IOT and RFID-related industries, logistics practitioners, and system integrators.
