Record Nr. UNINA9910483559403321 Autore Liu Hui Titolo Smart device recognition: ubiquitous electric Internet of things / / Hui Liu, Chengming Yu, Haiping Wu Pubbl/distr/stampa Singapore:,: Springer,, [2021] ©2021 **ISBN** 981-334-925-5 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XV, 294 p. 168 illus., 107 illus. in color.) Disciplina 004.678 Soggetti Internet of things Wireless communication systems - Energy consumption Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Smart non-intrusive device recognition based on physical methods -- Smart non-intrusive device recognition based on intelligent single-label classification methods.-Smart non-intrusive device recognition based on intelligent multi-label classification methods. Sommario/riassunto The book is the first international reference on the field of smart device recognition and Ubiquitous Electric Internet of Things (UEIOT). It presents a range of state-of-the-art key methods and applications for smart device recognition. In future smart environments, obtaining energy consumption information for identifying every device is an effective approach to guarantee the energy efficiency of smart industrial systems. Such as, the Ubiquitous Electric Internet of Things (UEIOT) technology represents one of the most effective measures for electricity and energy management and has attracted considerable attention from scientists and engineers around the world. The

realization of smart device recognition in the UEIOT framework has become the core and basis of UEIOT's success. The device smart recognition can help governments and managers to distribute energy and power better, and help device manufacturers to improve their products regarding smart energy conservation. Accordingly, in the future smart industry, implementing smart device recognition is desired and very important. In the book, several methods, strategies,

and experiments for achieving smart device recognition are presented in details. As the first monograph in the field of smart device recognition, the book can provide beneficial reference for students, engineers, scientists, and managers in the fields of power, energy, electromechanical devices, smart cities, artificial intelligence, etc. .