1. Record Nr. UNINA9910299835003321 Autore Ahmed Jameel **Titolo** RFID-WSN Integrated Architecture for Energy and Delay- Aware Routing : A Simulation Approach / / by Jameel Ahmed, Mohammed Yakoob Siyal, Muhammad Tayyab, Menaa Nawaz Singapore:,: Springer Singapore:,: Imprint: Springer,, 2015 Pubbl/distr/stampa **ISBN** 981-287-414-3 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (97 p.) Collana SpringerBriefs in Applied Sciences and Technology, , 2191-530X Disciplina 621.384192 Soggetti Electrical engineering Computer organization Power electronics Communications Engineering, Networks Computer Systems Organization and Communication Networks Power Electronics, Electrical Machines and Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction -- RFIDs and WSNs -- Challenges and Issues in the WSN and RFID -- The Delay Model for Acquire -- Simulator for Smart Node -- Simulation Based Case Study and Analysis. The book identifies the performance challenges concerning Wireless Sommario/riassunto Sensor Networks (WSN) and Radio Frequency Identification (RFID) and analyzes their impact on the performance of routing protocols. It presents a thorough literature survey to identify the issues affecting routing protocol performance, as well as a mathematical model for calculating the end-to-end delays of the routing protocol ACQUIRE; a comparison of two routing protocols (ACQUIRE and DIRECTED DIFFUSION) is also provided for evaluation purposes. On the basis of the results and literature review, recommendations are made for better selection of protocols regarding the nature of the respective application and related challenges. In addition, this book covers a proposed

simulator that integrates both RFID and WSN technologies. Therefore, the manuscript is divided in two major parts: an integrated architecture

of smart nodes, and a power-optimized protocol for guery and