

1. Record Nr.	UNINA9910350312803321
Autore	Azizi Aydin
Titolo	Applications of Artificial Intelligence Techniques in Industry 4.0 // by Aydin Azizi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2019
ISBN	981-13-2640-1
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (70 pages)
Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-5318
Disciplina	658.0563
Soggetti	Telecommunication Artificial intelligence Industrial management Communications Engineering, Networks Artificial Intelligence Industrial Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Modern Manufacturing -- RFID Network Planning -- Hybrid Artificial Intelligence Optimization Technique -- Implementation.
Sommario/riassunto	This book is to presents and evaluates a way of modelling and optimizing nonlinear RFID Network Planning (RNP) problems using artificial intelligence techniques. It uses Artificial Neural Network models (ANN) to bind together the computational artificial intelligence algorithm with knowledge representation an efficient artificial intelligence paradigm to model and optimize RFID networks. This effort leads to proposing a novel artificial intelligence algorithm which has been named hybrid artificial intelligence optimization technique to perform optimization of RNP as a hard learning problem. This hybrid optimization technique consists of two different optimization phases. First phase is optimizing RNP by Redundant Antenna Elimination (RAE) algorithm and the second phase which completes RNP optimization process is Ring Probabilistic Logic Neural Networks (RPLNN). The hybrid paradigm is explored using a flexible manufacturing system (FMS) and the results are compared with well-known evolutionary optimization

technique namely Genetic Algorithm (GA) to demonstrate the feasibility of the proposed architecture successfully.
