Applications of artificial intelligence techniques in Industry 4.0

Azizi, Aydin, author

Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=9999920521597&lokasi=lokal

----

Abstrak

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.