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Descrizione fisica	1 online resource (286 pages)
Collana	Emerging Trends in Mechatronics, , 2731-4863
Altri autori (Persone)	Azizi
Disciplina	629.8
Soggetti	Automatic control Robotics Automation Artificial intelligence Neural networks (Computer science) Control, Robotics, Automation Artificial Intelligence Mathematical Models of Cognitive Processes and Neural Networks
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Design of an Artificial Intelligence-based Controller for Stationary Battery Packs -- Modelling and control of a robotic arm utilizing artificial neural networks -- Design an MRC/Fuzzy Logic Controller to control an Active Suspension -- Study and Optimisation of Electric Torque Vectoring System in an FSAE Race Car -- Design and analysis of Fuzzy Logic Controlled Active Suspension -- Design a fuzzy logic controller for an active suspension system -- The Project-Based Learning Approach: A Case Study on the Design of the Advanced Engineering Module to Meet Industry 5.0 Requirements -- An Application on Performance Analysis of Fibonacci and Golden Ratio Algorithms in Root Finding Methods -- Improved Positioning of an Unmanned Vehicle by Distance-Based Differential GPS -- Water Level Tracking System by Using Online Arduino.
Sommario/riassunto	This book presents cutting-edge research and practical innovations in the field of mechatronic systems, particularly focusing on intelligent

mechatronic control systems. It addresses both theoretical foundations and real-world applications, ranging from artificial intelligence and hybrid energy systems to diagnostics, robotics, and control strategies. This book offers a substantial contribution to the academic and engineering community, fostering future advancements and collaborative research opportunities.
