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Descrizione fisica	1 online resource (308 pages)
Collana	Emerging Trends in Mechatronics, , 2731-4863
Disciplina	629.8
Soggetti	Automatic control Robotics Automation Vehicles Business logistics Computational intelligence Artificial intelligence Control, Robotics, Automation Vehicle Engineering Logistics Computational Intelligence Artificial Intelligence
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Model Predictive Control for OBR Autonomous -- Development and Simulation of a Dual-Mode Autonomous Braking System for Human and AI Controlled Driving in an EV Formula Student Car -- Time-Efficient Driver Model Based on Model Predictive Control Approach -- Modelling and Control of a Two-Degree-of-Freedom Robotic Arm using PID and Fuzzy Logic Control -- Multi-Modal Supply Chains: A Generative AI Framework for Intelligent Logistics Optimization, Freight Exchange, and Dynamic Routing.
Sommario/riassunto	This book highlights innovative developments in the areas of autonomous vehicles, robotics, intelligent control strategies, and AI-driven logistics systems. It focuses on both theoretical advancements

and practical implementations, highlighting applications across Formula Student autonomous racing, robotic systems, and intelligent supply chains. By covering cutting-edge topics such as Model Predictive Control, dual-mode braking systems, robotic arm control, and AI-driven logistics optimization, the book integrates contributions across multiple domains, providing readers with valuable insights into emerging methodologies and their real-world impact.
