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Autore	Azizi Aydin
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Altri autori (Persone)	Azizi
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Nota di contenuto	Fault Diagnosis of a Vehicle Cylinder Head, an AI Approach -- Development of a Data-Driven Predictive Maintenance Framework for Centrifugal Pumps -- Parameter Identification of Empirical Models for Head Estimation of Electrical Submersible Pumps used for Dual-phase Petroleum Fluids -- Design and Development of an Autonomous Solar Panel Cleaning Robot to Enhance Photovoltaic Efficiency -- Interactive Human-Robot Integration: Enhancing Communication and Movement with AI-Driven Responses -- Road Guardian: A Technology for Preventing Impaired Driving -- Genetic Algorithm Based Stabilization of Rotary Inverted Pendulum by State Feedback.
Sommario/riassunto	This book compiles cutting-edge research and practical innovations in the field of mechatronic systems, particularly focusing on smart diagnostics and predictive maintenance. It addresses both theoretical foundations and real-world applications, ranging from artificial intelligence 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.

