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Collana	Studies in Systems, Decision and Control, , 2198-4190 ; ; 232
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Soggetti	Automatic control Cooperating objects (Computer systems) Engineering mathematics Engineering - Data processing Control and Systems Theory Cyber-Physical Systems Mathematical and Computational Engineering Applications
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Nota di contenuto	From Harm to Harmony: What Philosophers Teach Us About Safety -- The Impact of Leadership on Fostering a Safety-Oriented Organizational Culture -- Safety Through Stories: Leveraging Literature's Lessons for Practical Safety Insights -- Confidence vs. Competence: The Role of the Dunning-Kruger Effect in Workplace Safety -- Virtual Safety Engineer: From Hazard Identification to Risk Control in the Age of AI -- Dynamic system failure assessment of lifeboat under emergency response operations -- Influence of the Dark Triad Personality on Safety Practices in Workplace -- Mastering the Landscape of Occupational Health and Safety: Regulations, Best Practices, and Avoiding Pitfalls -- Reliability analysis of offshore pipeline under stochastic degradation.
Sommario/riassunto	This book offers a pioneering exploration into the integration of safety

considerations with operations research, providing a vital toolkit for enhancing decision-making processes in hazardous industries. It delivers comprehensive insights and innovative methodologies to foster safety-centric planning and operations across various sectors. As the complexities of modern industries increase, so does the potential for operational risks. This book addresses this challenge by merging rigorous safety analysis with the quantitative sophistication of operations research. This book aims to create safer working environments and more resilient operational frameworks. The book is divided into several key sections, each focusing on different aspects of operations research applied to safety. Initial chapters lay a theoretical foundation, discussing mathematical models and statistical methods that prioritize safety. Subsequent sections delve into specific applications within supply chain management, transportation logistics, and production planning, illustrating how these methods can be practically applied to reduce risks and enhance operational safety. Advanced topics covered include the application of machine learning and artificial intelligence to predict and mitigate potential hazards and the use of simulation techniques to model and manage operational risks. Real-world case studies are presented to show the practical implementation of these theories in industries such as manufacturing, health care, and energy, providing readers with actionable insights and proven strategies. Additionally, the book examines the cultural and behavioral aspects of safety in operations, emphasizing the importance of building a robust safety culture and integrating human factors into safety planning. Ethical and regulatory dimensions are also explored to guide practitioners in navigating the complex legal landscapes that govern safety in various industries. This book is an essential resource for students, researchers, and professionals in operations research and management, especially those involved in planning and executing operations in safety-critical sectors. It is particularly relevant for those who aim to blend technical proficiency with practical safety solutions to solve real-world challenges in operations' management.