1. Record Nr. UNINA9911020140703321 Autore Moran Marty Titolo Plant Optimization in the Process Industries: Incorporating Equipment/Assets in the Decision-Making Process Pubbl/distr/stampa Newark:,: John Wiley & Sons, Incorporated,, 2024 ©2025 **ISBN** 9781119707790 111970779X 9781119707776 1119707773 9781119707714 1119707714 Edizione [1st ed.] Descrizione fisica 1 online resource (348 pages) Soggetti Plant engineering Robust optimization Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Cover -- Title Page -- Copyright Page -- Dedication Page -- Contents -- Foreword by Ron Lambert -- About the Author -- Acknowledgments -- Disclaimer -- Chapter 1 Optimizing a Process Plant -- 1.1 High-Level Business Goals -- 1.2 Profit --1.2.1 Revenue --Costs -- 1.3 Each Plant Is Unique -- 1.4 Plant Optimization Nirvana -- 1.5 Process/Asset Views of the Business Need Alignment -- 1.6 Optimization Technologies on the Process Side of the Business -- 1.7 Optimization Technologies on the Asset Side of the Business --1.7.1 Turnaround Considerations --1.7.2 Improvement Project Selection – Determining Optimal Process Unit Availability Target --1.7.3 Task Optimization --1.7.4 Spares Optimization --1.7.5 Maintenance Plan Options Optimization --1.7.6 Asset(s) Design Optimization --1.7.7 Storage Tankage Determination/Optimization 1.7.8 Feed Quality and Process Condition Considerations -- 1.8 Conclusion -- 1.9 Future Chapters -- 1.9.1 Reliability Programs -Past and Future

Sommario/riassunto

This book, 'Plant Optimization in the Process Industries', explores the integration of equipment and technology in decision-making processes within industrial plants. It delves into optimization technologies both on the process and asset sides of the business, focusing on improving plant performance and efficiency. The author discusses high-level business goals, cost management, and the uniqueness of each plant, providing insights into optimal asset management and methodologies for project improvement. Techniques such as Monte Carlo simulation and optimization models are presented as tools for enhancing reliability and performance. Aimed at professionals in the process industries, the book serves as a guide to achieving 'Optimization Nirvana' by aligning business needs with technological solutions.