

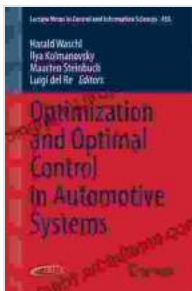
Optimization And Optimal Control In Automotive Systems: Achieving Peak Performance and Efficiency

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In the ever-evolving automotive industry, the pursuit of improved performance, efficiency, and safety has led to an increased emphasis on optimization and optimal control. The book "Optimization And Optimal Control In Automotive Systems" provides a comprehensive guide to these critical concepts, laying the foundation for engineers, researchers, and practitioners to optimize vehicle design and operation.

Content Overview:

This extensive book covers a wide range of topics essential for understanding optimization and optimal control in automotive systems, including:



Optimization and Optimal Control in Automotive Systems (Lecture Notes in Control and Information Sciences Book 455)

★★★★★ 5 out of 5

Language : English
File size : 17561 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 350 pages

FREE

DOWNLOAD E-BOOK



1. Continuous and Hybrid Optimization

- Mathematical foundations of optimization - Linear and nonlinear programming - Convex and non-convex optimization - Global and local optimization techniques - Hybrid optimization algorithms

2. Optimal Control

- Dynamic system modeling - Linear and nonlinear optimal control - Model predictive control - Stochastic optimal control - Robust optimal control

3. Automotive Applications

- Engine control - Transmission control - Chassis control - Vehicle dynamics and motion planning - Powertrain optimization - Fuel consumption reduction - Emissions control

Key Features:

- In-depth coverage of both theoretical concepts and practical applications - Numerous examples and case studies to illustrate real-world implementations - MATLAB® and Python code examples to facilitate implementation - Discussion of the latest advancements and research trends in the field - Contribution from renowned experts in automotive optimization and control

Benefits for Readers:

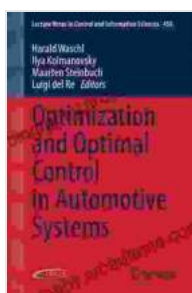
- Enhanced understanding of optimization and optimal control techniques - Ability to develop efficient and reliable automotive systems - Improved vehicle performance, fuel economy, and emissions reduction - Expertise in designing and implementing advanced control algorithms - Preparation for advanced research and development in the automotive industry

Alt Attribute for Images:

- [Image of a car with arrows indicating optimization parameters] - Optimizing vehicle performance through optimization and control - [Graph showing the trajectory of a vehicle under optimal control] - Optimal control for improved vehicle dynamics and motion planning - [Simulation of an engine control system] - Optimization of engine performance and fuel efficiency - [Diagram of a hybrid optimization algorithm] - Hybrid optimization for complex automotive systems

Call-to-Action:

"Optimization And Optimal Control In Automotive Systems" is an invaluable resource for anyone seeking to advance their knowledge and skills in this critical field. Whether you are an engineer, researcher, or practitioner, this book will provide you with the foundation and insights you need to optimize automotive systems for improved performance, efficiency, and safety. Free Download your copy today and unlock the potential of optimization and optimal control in the automotive industry!



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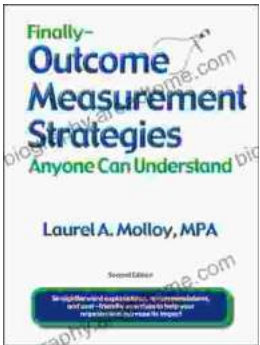
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Unveiling the Silent Pandemic: Bacterial Infections and their Devastating Toll on Humanity

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