Transformative Integration of Sensors, Controls, and Safety Networks

Part of the Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series

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Description:

As technology advances rapidly, industries grapple with the intricate challenge of seamlessly integrating sensors, controls, and safety networks. The transformative potential of these technologies is evident, promising enhanced efficiency, safety, and reliability across various sectors. However, the pressing issue lies in the need for a comprehensive resource that not only navigates the evolving state of these technologies but also addresses the demand for integrated knowledge. As professionals and researchers in fields such as Control & Computing, Network & Security, VLSI & Embedded Systems, and Sensor and IoT seek a cohesive understanding of these domains, the absence of a consolidated reference becomes a formidable hurdle.

Transformative Integration of Sensors, Controls, and Safety Networks steps into this void, offering a compelling solution to the challenge at hand. By collating cutting-edge research and innovative applications, this book provides a comprehensive overview of the state-of-the-art in sensor technologies, control systems, and safety networks. Tailored to cater to the needs of students, researchers, engineers, and practitioners, it not only illuminates the current advancements but also serves as a catalyst for collaboration and knowledge exchange. As industries grapple with issues like real-time monitoring, machine learning, and adaptive control, this book emerges as a guiding light, offering not just insights but a roadmap for unlocking the transformative potential of these interconnected technologies.

The target audience, comprising professionals and researchers, will find in this book a valuable tool for navigating the complex landscape of sensors, controls, and safety networks. It becomes a critical reference for those pursuing advanced degrees and delving into topics ranging from wireless communication to smart grids. As the book addresses the pressing need for a consolidated resource in these evolving fields, it emerges as the go-to solution for academics, engineers, and practitioners seeking to comprehend, integrate, and harness the transformative power of sensors, controls, and safety networks.

ISBN: 9798369330920 **Pages:** 320 **Copyright:** 2024 **Release Date:** June, 2024

Hardcover: $325.00 **E-Book:** $325.00 **Hardcover + E-Book:** $390.00

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