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Sommario/riassunto

This book, edited by Sandip Kunar and Prasenjit Chatterjee, explores recent advancements in materials and manufacturing processes, focusing on the development of new materials and techniques to enhance productivity and quality while reducing costs and time. It serves as a scientific platform for researchers, practitioners, and academics to discuss technological developments in metals, polymers, ceramics, composites, biomaterials, and nanomaterials. The book covers topics such as laser welding, micromilling, and laser cleaning technologies, with applications in machining of advanced materials like titanium alloys, nickel-based alloys, and ceramics. It also addresses optimization techniques and tribological analysis in manufacturing processes. The intended audience includes professionals and scholars in mechanical engineering and manufacturing fields.