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Sommario/riassunto

This comprehensive book on photovoltaic systems, edited by Mohammed Aslam Husain and others, offers an in-depth exploration of solar photovoltaic technology and its applications. It covers the history, evolution, and modeling of solar PV cells, as well as the technological advancements in PV systems, including power optimization and energy storage solutions. The book also discusses photovoltaic-powered electric vehicles, maximum power point tracking techniques, and metaheuristic methods for power extraction from hybrid renewable energy sources. Intended for professionals and researchers in renewable energy technology, it aims to provide insights into the latest innovations and challenges in the field, with a focus on integrating artificial intelligence and machine learning for solar energy forecasting.