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Nota di contenuto	Chapter 1. Introduction -- Chapter 2. Design of LCL Filters -- Chapter 3. Magnetic Integration of LCL Filters -- Chapter 4. Resonance Damping Solutions for LCL Filter -- Chapter 5. Controller Design for LCL-Type Grid-Connected Inverters with Capacitor-Current-Feedback Active Damping -- Chapter 6. Full Feed-Forward of Grid Voltage for Single-Phase LCL-Type Grid-Connected Inverters -- Chapter 7. Full-Feedforward Scheme of Grid Voltages for Three-Phase LCL-Type Grid-Connected Inverters -- Chapter 8. Design Considerations of Digitally-Controlled LCL-Type Grid-Connected Inverters with Capacitor-Current-Feedback Active-Damping -- Chapter 9. Reduction of Computation Delay for Improving Stability and Control Performance of LCL-Type Grid-Connected Inverters -- Chapter 10. Impedance Shaping of LCL-Type Grid-Connected Inverters to Improve Adaptability to Weak Grids -- Chapter 11. Weighted-Feedforward Scheme of Grid Voltages for Three-Phase LCL-Type Grid-Connected Inverters Under Weak Grid Conditions -- Chapter 12. Prefilter-Based Synchronous Reference

Frame Phase-Locked Loop Techniques.

Sommario/riassunto

This book focuses on control techniques for LCL-type grid-connected inverters to improve system stability, control performance and suppression ability of grid current harmonics. Combining a detailed theoretical analysis with design examples and experimental validations, the book offers an essential reference guide for graduate students and researchers in power electronics, as well as engineers engaged in developing grid-connected inverters for renewable energy generation systems.
