

1. Record Nr.	UNINA9910983068903321
Autore	Lam Chi-Seng
Titolo	Advanced Controllers Design for Hybrid Active Power Filters // by Chi-Seng Lam, Cheng Gong, Wai-Kit Sou
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819768479 9819768470
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (229 pages)
Collana	Engineering Series
Altri autori (Persone)	GongCheng SouWai-Kit
Disciplina	621.381044
Soggetti	Power electronics Electronic circuit design Automatic control Power Electronics Electronics Design and Verification Control and Systems Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Deadbeat Current Control for LC HAPF -- Improved Model Predictive Control for LC HAPF -- Vector Proportional Integral Control for LC HAPF -- Second Order Sliding Model Control for LC HAPF -- Multi Quasi Proportional Resonant Control for TCLC HAPF -- H Control for TCLC HAPF -- Finite Set Model Predictive Control for TCLC HAPF -- Finite Set Hybrid Model Predictive Control for TCLC HAPF -- Second Order Sliding Model Observer based Second Order Sliding Model Control for TCLCHAPF -- Conclusions and Prospective for Further Work.
Sommario/riassunto	The book focuses on different advanced current control strategies of LC-coupling hybrid active power filter (LC-HAPF) and Thyristor controlled LC-coupling hybrid active power filter (TCLC-HAPF). Both topologies and their corresponding advanced current control strategies are introduced, with more weight placed on the current control strategies. A total of 9 advanced current control strategies are studied in details for both LC-HAPF and TCLC-HAPF. The comprehensive and

systematic treatment of advanced current controller design is one of the major features of the book, which is particularly suitable for readers who are interested in learning the design and implementation of current controller design for HAPFs. The book can benefit researchers, engineers, undergraduate and postgraduate students in the fields of electrical and electronic engineering, power electronics, control strategy, etc.
