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Autore	Singh Bhim (Electrical engineer)
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Nota di contenuto	Power Quality Problems and Mitigation Techniques; Contents; Preface; About the Companion Website; 1. Power Quality: An Introduction; 1.1 Introduction; 1.2 State of the Art on Power Quality; 1.3 Classification of Power Quality Problems; 1.4 Causes of Power Quality Problems; 1.5 Effects of Power Quality Problems on Users; 1.6 Classification of Mitigation Techniques for Power Quality Problems; 1.7 Literature and Resource Material on Power Quality; 1.8 Summary; 1.9 Review Questions; References; 2. Power Quality Standards and Monitoring; 2.1 Introduction 2.2 State of the Art on Power Quality Standards and Monitoring 2.3 Power Quality Terminologies; 2.4 Power Quality Definitions; 2.5 Power Quality Standards; 2.6 Power Quality Monitoring; 2.6.1 Objectives of PQ Monitoring; 2.6.2 Justifications for PQ Monitoring; 2.7 Numerical Examples; 2.8 Summary; 2.9 Review Questions; 2.10 Numerical Problems; 2.11 Computer Simulation-Based Problems; References; 3. Passive Shunt and Series Compensation; 3.1 Introduction; 3.2 State of the Art on Passive Shunt and Series Compensators; 3.3 Classification of Passive Shunt and Series Compensators

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Sommario/riassunto

Maintaining a stable level of power quality in the distribution network is a growing challenge due to increased use of power electronics converters in domestic, commercial and industrial sectors. Power quality deterioration is manifested in increased losses; poor utilization of distribution systems; mal-operation of sensitive equipment and disturbances to nearby consumers, protective devices, and communication systems. However, as the energy-saving benefits will result in increased AC power processed through power electronics converters, there is a compelling need for improved understanding o
