

## **A Review of Active Power Filters Performance and Control Approaches for Improving Power Quality Problems**

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**Abstract :** An increase in demand for high quality and reliable power an increasing number of different loads have led to an awareness of power quality. Voltage magnitude is one of the major factors that determine the quality of power. For this Power Quality improvement various Flexible AC Transmission System (FACTS) and Custom power devices are proposed. There are various power quality problems such as voltage sags, swells, flickers, interruptions and harmonics etc. Active Power Filter (APF) is one of the custom power devices and can mitigate harmonics, reactive power and unbalanced load currents originating from load side. In this study, an extensive review of APF studies, the advantages and disadvantages of each presented methods are presented. The research also helps the researchers to select the optimum control techniques and power circuit configuration for APF applications.

**Keywords :** Power Quality, Custom Power, Active Filter, Control Approach.

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