Abstract

Increasing application of non-linear loads cause power quality issues in power system. Even though the distributed generation helps to meet the increase in power demand, they enhance the power quality problem of grid. They need power electronic interface and produce fluctuating power output hence give rise to voltage fluctuations, voltage sags, swells, harmonic distortion etc. This paper discusses the power quality issues in grid connected DG system and their mitigation techniques. The passive filtering techniques are more popular but increase the installation cost. However, power quality enhancement and harmonic mitigation is possible using a flexible DG unit.

**Index Terms**

Computer Science  
Power Systems

**Keywords**

Distributed Generation  
Harmonics  
Power Quality  
Reactive Power.