

## Power Quality Evaluation of Electrical Distribution Networks

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**Abstract :** Researches and concerns in power quality gained significant momentum in the field of power electronics systems over the last two decades globally. This sudden increase in the number of concerns over power quality problems is a result of the huge increase in the use of non-linear loads. In this paper, power quality evaluation of some distribution networks at Misurata - Libya has been done using a power quality and energy analyzer (Fluke 437 Series II). The results of this evaluation are used to minimize the problems of power quality. The analysis shows the main power quality problems that exist and the level of awareness of power quality issues with the aim of generating a start point which can be used as guidelines for researchers and end users in the field of power systems.

**Keywords :** power quality disturbances, power quality evaluation, statistical analysis, electrical distribution networks

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