

Enhanced Relay Feedback Method to Reduce Harmonics

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We propose a new relay feedback method in order to reduce the harmonics and obtain more accurate frequency data. It combines ten pulses to generate one period of the relay signal while previous approaches use only two pulses. The ten pulses are combined in an optimal way by solving a constrained nonlinear optimization problem to reduce the harmonics as much as possible. The proposed method shows significantly smaller harmonics compared with previous approaches.