ABSTRACT

This paper presents the measuring method of instantaneous active and reactive power based on Clark (ct-(3) and Park (d-q) transformation. The theory of the measuring method is described and analyzed. Besides that, different methods used in order to measure the reactive power were introduced in this paper.

Theoretically analysis of the overall project was described. Basically, this system is very useful in teaching electrical machines in Park's coordinates and also it allows the study and control of some power electronics converters that are connected to three-phase power network.

This project has been carried out by the connection of electronic circuits and are tested with software: Multisim and MATLAB/Simulink separately. The simulated results are discussed in this paper.

Keywords: Clark and Park transformation, Active power, Reactive power, instantaneous power, Power converter