

Abstract

The aim of this paper is to propose the design and implementation of an Artificial Neural Network (ANN) on a Field Programmable Gate Array (FPGA). This implementation aim is to contribute in the hardware integration solutions in the areas such as control of power system, where the Direct torque Control (DTC) of induction machine is employed. The specialized Simulink tools used and the design procedure are presented. The results obtained by co-simulation of the induction motor drive in Matlab/Simulink and the ANN on the FPGA are satisfactory and very promising.