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A UNIVERSAL FUZZY LOGIC TECHNIQUE FOR PMDC MOTOR DRIVE

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Abstract

This paper deals with the control of speed regulation of a separately excited PMDC motor fed from single phase fully controlled converter. In many industries, the PMDC motor plays a vital role for variety of control applications. The speed regulation of Separately excited PMDC motor is poor in discontinuous mode when fed from single phase fully controlled converter. The aim of this work is to implement a fuzzy logic controller for PMDC drive operating in discontinuous mode of the converter. In this work it is observed that the fuzzy logic controller delivers superior performance than PI controller in the discontinuous mode of the converter, in achieving better speed regulation. Simulation results prove the e.ectiveness of the proposed fuzzy controller compared with PI controller.