Abstract

This paper presents design and implementation of scalar control of induction motor. This method leads to be able to adjust the speed of the motor by control the frequency and amplitude of the stator voltage of induction motor, the ratio of stator voltage to frequency should be kept constant, which is called as V/F or scalar control of induction motor drive. This paper presents a comparative study of open loop and close loop V/F control induction motor. The V/F
control is based on advent of stator voltage derivatives. Simulation is carried out in MATLAB/SIMULINK environment and results are compared for speed control of induction motor.

References

- Wei Chen; Dianguo Xu; Rongfeng Yang; Yong Yu; Zhuang Xu; A novel stator voltage oriented V/F control method capable of high output torque at low speed; International Conference on Power Electronics and Drive Systems, PEDS2009, 2-5 Nov. 2009, pp 228 - 233.

Index Terms

Computer Science

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Keywords
Scalar Control (v/f)  Induction Motor (im)  Open Loop V/f Control  Closed Loop V/f Control
Controller.