Abstract

The induction motor fulfills admirably the requirements of substantially constant speed drive. This paper presents simulation and development of variable frequency drive by keeping constant voltage-frequency ratio of power supply which is fed to induction motor. A rule-based fuzzy logic controller applied to a scalar closed loop V/f induction motor (IM) speed control, in MATLAB environment. A fuzzy control system uses speed error and speed error variation to change both amplitude and frequency of supplied voltage. Reference speed and load torque variations are also simulated and implemented on hardware.

References

education.

**Index Terms**

Computer Science  
Power Electronics

**Keywords**

Spwm Inverter  
Fuzzy Logic  
Simpower System  
Vsi  
Dspic