**ABSTRACT**

This Project briefly describes the composition of electric power steering (EPS) system and the development advantages of brushless DC (BLDC) motor. Based on the mathematical model of the BLDC motor and the requirements of the EPS system for assist motor, a control strategy of the BLDC motor used in EPS system is proposed, then a simulation model of control system using in BLDC motor is set up, and its simulation analysis is made. The feasibility, high reliability of the system and the validity of the control method are proved by the fruitful simulation results which serve a design method for a further research of BLDC motor in EPS.