Thesis Title	Design and Development of Driver Technique for Moving Smoothly in Stepping Motor with Sine Modulation
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Abstract

Recently, AC motors is rapidly developed and widely applied for most machines used in industries area. This thesis presents the design and develop of driver system to control the operation of stepping motor. The excite power to the winding in each phase of stepping motor is sequenced in corresponding with the rotation of rotor by 90° of electric flux when compare with its stator. This driver system will control the amount of the sinusoidal and cosine electrical current applied to the windings of stepping motor by switching circuits, and cause the full wave flows through the winding in each phase of stepping motor. Using this driver system, the better efficiency of stepping motor is obtained and equivalent to the DC motor. The constant torque of stepping motor at any low speed operation can be accurately controlled while the very small slip at high speed is also obtained. This means that some disadvantages of stepping motor is improved because remarkable slip at high speed and non-constant torque at low speed operations are usually found in general stepping motors.