

Abstract

Mahmoud M Elashwah

Modeling and Simulation of Gear-Shift Controller for Automated Manual Gearbox Based on Neuro Fuzzy Control Logic

Gear shift control of automated manual transmissions (AMT) has many advantages in terms of improvement of driving comfort, reduction of fuel consumption and shifting quality. This paper aims to present a mathematical model, simulation, for gear-shift controller of automated manual gearbox (AMG) using neuro fuzzy approaches. The neuro fuzzy control is used for shift decision making at maximum torque, which will be correspond to the best shift. The mathematical and the control logic for the model have been developed using Matlab/Simulink software tool.