
基于单片机的汽车恒速控制系统

随着时代的发展，人们的生活水平提高，我国汽车拥有量大大增长，汽车在人们的生活中变得越来越重要，人们对汽车的舒适度和安全性的需求也随之增长。

汽车定速控制系统的运用，使得驾驶人能够减轻驾驶的负担，在驾驶途中感到更加舒适。这一系统的工作理念是：在汽车行驶时，驾驶人通过系统设置好速度，当汽车周边的路况发生变化，驾驶人无需踩踏油门或刹车，汽车就能在这一系统的控制下保持设定速度行驶。所以，定速系统具有广泛的应用前景。

本课题提出一种汽车定速控制系统，以单片机控制为核心，编写程序，设计出控制系统，对汽车在稳定环境——高速公路中的行驶状况模拟出来，可以实现，在定速系统的控制下，无需油门的操作，就能够使汽车按照系统设定的速度行驶，并能够实现电子节油的功能。达到安全、环保的目的。最后，本文对汽车产业的未来，定速控制系统的将来发展，提出了一定的想法。

关键词：定速控制、单片机、汽车控制

Title Automobile constant speed control system based on single chip microcomputer

Abstract

With the development of the times and the improvement of people's living standards, the number of cars in our country has increased greatly. Cars have become more and more important in people's lives, so people's demand for comfort and safety of cars has also increased. With the application of the constant speed control system, the driver can reduce the burden of driving and feel more comfortable on the way. The working concept of this system is: when the car is driving, the driver sets the speed through the system. When the road conditions around the car change, the driver does not need to step on the accelerator or brake, the car can maintain the set speed under the control of this system. Therefore, this system has broad research prospects.

In this paper, a kind of automobile constant speed control system is put forward, which is based on the single chip microcomputer control. The program is compiled, and the control system is designed. It can simulate the driving condition of the automobile in the stable environment -- the highway. Under the control of the constant speed system, it can make the automobile run according to the speed set by the system without the operation of the throttle, and can realize the power of electronic fuel saving. To achieve the purpose of safety and environmental protection. Finally, this paper puts forward some ideas about the future of the automobile industry and the future development of the constant speed control system.

Keywords:Constant speed control, single chip microcomputer,

automobile control

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