

SCHOOL OF ENGINEERING

FINAL REPORT

DESIGN AND IMPLEMENTATION OF A NEURO- FUZZY CONTROL OF TRAFFIC LIGHTS

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ABSTRACT

This is the report that explains briefly about the project entitled “Design and Implement of a Neuro-Fuzzy control of Traffic Light” which is based on the simulation of the neuro-fuzzy and fuzzy logic system.

The aim of this project is to design an intelligent traffic controller by using fuzzy logic. Generally, the entire system consists of normal traffic light system with slight modification by applying a fuzzy logic control. In other words the fuzzy logic control is an expert system, which means that, the expert of a traffic police is being brought to the computer programs to operate the traffic light system.

The whole idea is to produce a maximum green light for a phase, depends on the queue of the vehicle and the volume of the traffic. Meanwhile, the other phase requires less longer duration.

This project is a fully software-based simulation project. The MATLAB Version 7.0 software with its Fuzzy Logic toolbox has been used in this project.