

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING DEPARTMENT

# DIPLOMA PROJECT

TRAFFIC SIGNALS SCHEME USING  
PROGRAMMABLE LOGIC CONTROLLER

E/1383

BRUNEAUX JEROME

JUNE 2005

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**BRUNEAUX JEROME**

This report submitted to the department of Electrical Engineering of  
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# Introduction

The purpose of this project was the development of a sequence control scheme of traffic lights/using a programmable logic controller (PLC).

The objectives of the project were:

-To investigate the programming capabilities of a ladder language using the RSLogix 500 software,

-To develop an application program for the control of traffic lights and test it on a simulation unit which must be constructed.

As there are a wide range of rules and functions that can be considered in the traffic regulation, no specified limitations are imposed, except hardware limitations.

Therefore, it was planned to create a basic work specifications which could be extended with additional features.

The project is subjugated to several essential rules for safety. Thus, the work specifications were prepared after consultation with an Engineer responsible for the traffic lights of Nicosia area and in accordance to their 'specification for microcontroller based traffic signals controller'.

The project is divided into several chapters. The first chapter deals with the training environment. The second chapter is referred to general information and work specifications. The third chapter presents the familiarization and the basic program. Finally, the fourth chapter deals with the integration of the methods of control in the basic program.