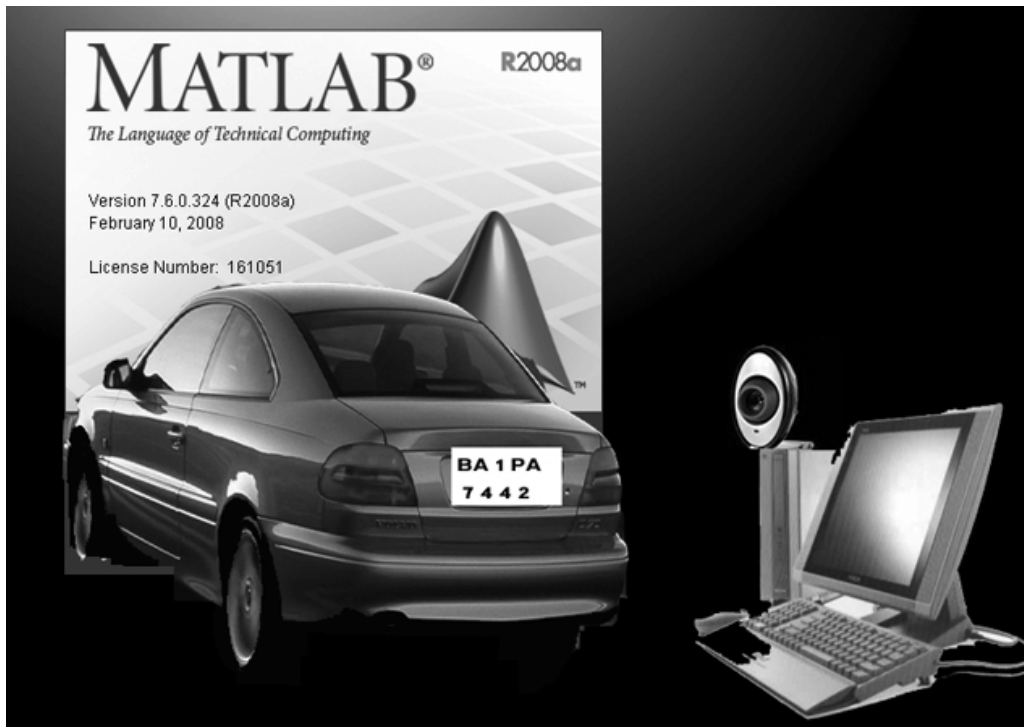


TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
THAPATHALI CAMPUS
THAPATHALI, KATHMANDU



Report On:-**ANPR(Automatic Number Plate Recognition) Using**
ALR(Automatic Line Tracking Robot)

Submitted By:

Ashok Basnet (062-DCT-407)
Bishnu Parajuli (062-DCT-410)
Ishor Prasad Rijal (062-DCT-416)
Kabindra Kaji Bajracharya (062-DCT-419)
Kiran Karki (062-DCT-420)
Krishna Bahadur Shrestha (062-DCT-421)
Mohan Pandey (062-DCT-422)
Ram Hari Regmi (062-DCT-430)

Submitted To:

Raju Pandey
Pravin Shakya
(Project Supervisors)
Department Of
Computer
& Electronics
Engineering

PREFACE

It is almost known that the world is nowadays being more dependent in the computer than the human manpower. Today in the developed countries more than 90% of the job is done by automated system and this is due to the accuracy, reliability and versatile nature of the computer. In the developed western countries many big factories, nuclear plants, communication centers all of them are under the control of the computer because that's not the place where human hand can reach up. To add the further mile for this step we have presented an automated number plate recognition using automatic line tracking robot. The project is based on image processing technology using popular software MATLAB.

ACKNOWLEDGEMENT

Initially, we would like to express our sincere gratitude and gratefulness to our professor Mr.Pravin Shakya and Mr. Raju Pandey for providing us with all sorts of basic ideas and techniques essential for carrying out this project work from the very beginning to the end and enabled us to present this dissertation in this form. The teaching staffs also deserve our sincere thanks for sharing their discussion and exchange of ideas.

We are very much grateful to the Tribhuvan University (Institute of Engineering), Thapathali Campus for providing us an enthusiastic support and opportunity. Department of Computer and Electronics also must come in special mention for their unstinting cooperation in completion of this project. We would also like to thank industrial expo committee for providing materials to test and complete this project. We would like to give heartily thanks to our friends who have provided a great help and cooperation for the existence of this output. Our obligation goes to our family and all our friends who assisted us directly and indirectly in completing this study.

Lastly, we would like to extend our sincere gratitude to the known and unknown writers of the books and references that has been taken during the preparation of this project work.

ABSTRACT

The ANPR (Automatic Number Plate Recognition) using ALR (Automatic line Tracking Robot) is a system designed to help in recognition of number plates of vehicles. This system is designed for the purpose of the security and it is a security system. This system is based on the image processing system. This system helps in the functions like detection of the number plates of the vehicles, processing them and using processed data for further processes like storing, allowing vehicle to pass or to reject vehicle. This system also helps to conduct the graphic images of the vehicles which can be further stored in the database in text format reducing size of data to be stored.

List of abbreviation

Abbreviation	Definition
ANPR	Automatic Number Plate Recognition
ALR	Automatic line tracking Robot
OCR	Optical Character Recognition
MATLAB	Matrix Laboratory
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
PC	Personal Computer
LED	Light Emitting Diode
LDR	Light Dependent Diode
DPDT	Double Port Double Through
IC	Integrated Circuit