**(Title)**

A THESIS

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By

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(year)

Acknowledgement (later)

Abstract (later)

Table of Contents (later)

List of Figures (or) (later)

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List of Equations (or) (later)

**Chapter 1**

**Research Description**

**1.1 Overview of the current State of Technology**

Humans use their eyes and their brains to see and visually sense the world around them. Computer vision is the science that aims to give a similar, if not better, capability to a machine or computer. Computer vision is concerned with the automatic extraction, analysis and understanding of useful information from a single image or a sequence of images. It involves the development of a theoretical and algorithmic basis to achieve automatic visual understanding. (The British Machine Vision Association and Society for Pattern Recognition, n.d.). One of its popular applications includes facial mapping as secure mobile authentication (Apple iPhone X, 2018). Through this, the user’s face becomes the password. FaceID as it is named, the user is allowed a secure and private way to unlock, authenticate, and pay using a mobile phone.

Another well-known application under this field of study is the automated detection of license plates, where a system is used to identify and recognize the license plates of vehicles. Moreover, various countries around the world have adapted and developed many kinds of license plate detection software, resulting in the emergence of diverse technologies relative to their respective law enforcement on license plate formats. One application is used as flexible and automatic toll collection system (Shevale, 2014) which is used to control the payment of fees, parking areas, highways, bridges, or tunnels, etc. On the other hand, one is widely used as access control mechanisms for limiting access to areas and resources based on users' identities and their membership in various predefined groups (Automatic Number Plate Recognition, n.d.), and many other applications.

**1.2 Background of the Study (dustin)**

**1. 3 Statement of the Problem (dustin)**

**1.3. Objective of the Study (joren)**

**1.3.1. General Objectives**

To train cascading classifiers for Philippine license plates using computer-generated license plate and to assess its accuracy at detecting the license plate

**1.3.2. Specific Objectives**

1. To collect existing synthetically generated license plate training set used in the study by (Name of the person)

2. To Utilize the OpenCV image processing library for training and generating the classifier.

3. To train the classifier based on Local Binary pattern using OpenCV.

4. To evaluate the accuracy of detection of the synthetically generated license plate.

**1.4. Scope and Limitation (joren)**

This study only focuses on using the Synthetically generated license plate as a training set that was used by (name) in their study. This study will not focus on the new license plate (2014 series, plate standardization project) and will only focus on the old license plate (1981 series), but study will be focusing only on the private license plate.

The classifiers used in this study will only be trained by Local Binary Pattern (sumpay diri)

**1.5. Significance of the study (joren)**

**1.6 Research methodology (later?)**

Chapter 2

**Review of Related Literature**

Chapter 3

**Theoretical Framework**

Chapter 4