 **Air University**

(Multan Campus)

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| Department of Computer Sciences |
| Software Engineering |
| Smart License Plate Reader |
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| **Introduction and Background:**  In the early days we had to keep the records manually of who met whom at what time but being the part of 21st Century we should automate the things and use the human resources in a productive direction. First of all we sorted what we have and what we have to find the stubs are mentioned below:  WHAT WE HAVE:  (A computer that can do any job, Car Records in Excise Database, Machine Learning Algorithms)  WHAT WE DON’T HAVE:  (License number of Car, Respective Details, and Log of visitors)  By now we know what we have to find so we started working on it. We decided to work with Machine Learning Algorithm using Supervised Machine Learning, OpenCV library, Tesseract OCR Library and Sqlite.  **Clear Statement of the Problem:**  It’s difficult to enter the license number of every car passing from any entrance. Being a Computer Scientist our aim is to solve real world problem of common people.  **Objectives & Scope:**  Our Aim is to extract the car from any video frame and read its license plate number. And cross match it with the Excise and Taxation Department Database to find the complete details of Vehicle. This software will be helpful for security as well as sale and purchase purposes.  **Motivation:**  We got our motivation when we realized that the Gate Keepers are filing the record of cars in a booklet manually, to maintain the Log, which we found it frustrating. So, we decided to solve this problem to provide comfort and easiness to others.  **Related Work:**  There are several licence plate reader over the internet but they aren’t Smart enough moreover they don’t provide the feature of providing the vehicle details. The previous ALPR (Automatic Licence plate reader) reads the licence plate number and do nothing else with it.  **Project Plan:**  Project plan will be designed with the collaboration of the supervisor.  **Resources Required:**  **Hardware Resources Required:**   * PC i5 2.5GHz * 500GB Hard * 8GB Ram * Full Internet access (8 Mbps) * HD Camera   **Software Resources Required:**   * Jupiter / Anaconda. * Python Libraries (Numpy, Panadas, Sklearn, OpenCV). * Tesseract OCR Library. * Sqlite Database * Github. * MS Visio 2012. |

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