**Abstract**

License plate recognition is a well-recognized technology. And voice recognition is good for safety issues and make the application easier to use. These two were combined to come up with a sophisticated system. To get higher accuracy, machine learning can be a very good choice. If necessary data is there, this can be very handy. In voice recognition part, there was the use of neural network algorithm and also there was the use of a non-machine learning approach. So, also to observe the difference of the performance among these two approaches is also a purpose of this project. This observation will prove the significance of machine learning algorithm.

|  |  |  |
| --- | --- | --- |
|  |  | **Accuracy** |
| Non - ML | License plate recognition | 87% |
| Non - ML | Voice recognition | 83% |
| ML(NN) | Voice recognition | 98% |

|  |  |
| --- | --- |
| **Learning Rate** | **Test Accuracy** |
| 1.5 | 65% |
| 0.5 | 89% |
| 0.1 | 94% |
| 0.05 | 97% |
| 0.01 | 98% |