SMART INDIA HACKATHON 2020

AUTOMATED VEHICLE MONITORING AND PARKING SYSTEM

MADE BY TEAM: SIGMA SIX

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PROBLEM STATEMENT

Create an affordable solution through image processing of number plates of vehicles for the detection, identification and, monitoring of vehicles in different scenarios such as residential,societies, tolls, business complex, parking spaces etc.

OVERVIEW

- In today's rapidly emerging and growing world, with lots of new cars being built every day, one problem that is becoming permanent is parking problem.

- Every mall we go to, railway stations, offices, be it anything, parking has always been an issue. Automatic License Plate Recognition (ALPR) became an important topic of research since the appearance of the first works in the early 1990s.

- A variety of ALPR systems and commercial products have been produced over the years due to many practical applications such as automatic toll collection, border control, traffic law enforcement and road traffic monitoring

Keeping in mind the current scenario we are developing an automated and sustainable system which will mitigate the vehicle monitoring and parking issues and will discuss the same.

Mandatory identification and monitoring of vehicles

Scientific growth in automobile industry

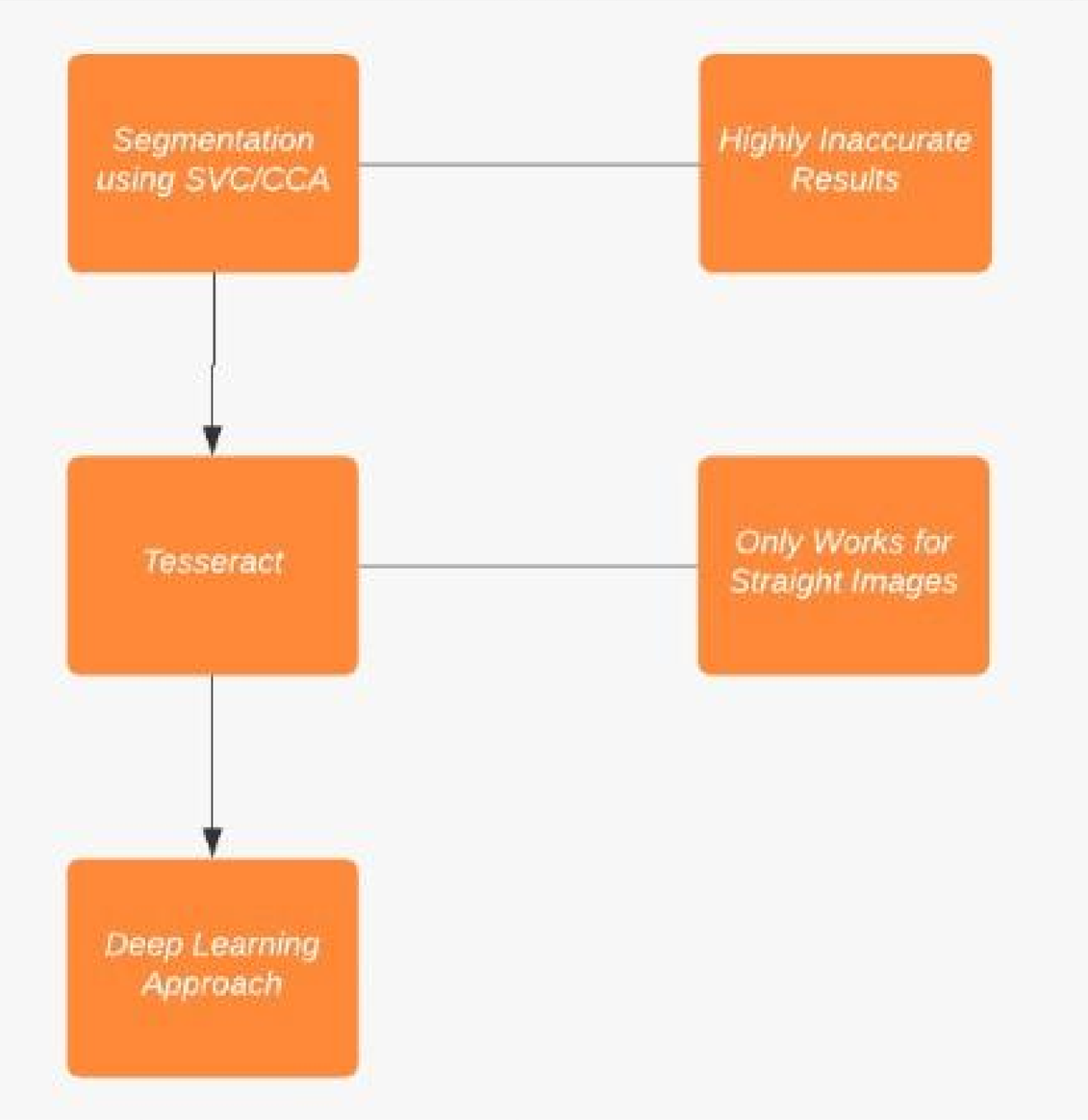
Automation employee

Our Understanding

- Automated system needs resources and these resources come at cost.

- Two main factors judges the feasibility of the system are
  1.Accuracy
  2.Affordability

Project Timeline



Technologies Used

- Django
- Django (Rest Framework)
- YOLO (You Only Look Once)
- CR-Net
- PyTesseract
- OpenALPR
- PostgreSQL