

Detection Of Delay In Truck Turn Around Time

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Introduction

- Truck turn around time is the average time elapsed between a truck's arrival at any plant/facility and its departure from the same.
- It is observed that there is always a delay during the loading unloading activities in a logistics warehouse.
- This can happen mainly due to the human time consumption in the loading/unloading process.
- This has to be reduced or maintained one way or the other.

- As this requires a continuous monitoring, lot of human time can be saved by using this mechanism.
- This project aims to reduce the time delay which will help the logistics reach the destination on time.

Literature Review

- One of the early works developed a benchmark for predicting turnaround time for trucks at a container terminal.
- Another important work does the truck cycle time prediction .
- But in this project we give the live time delay while loading or unloading which can be managed at the same day.

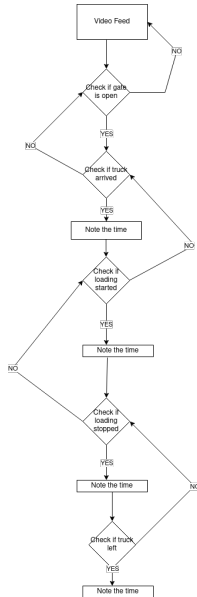
Technologies and Softwares Used:

- Python -General-purpose coding language.
- Tensorflow -Machine learning library developed by Google.
- Computer Vision -Involves use of image processing techniques through Python.
- Deep learning -Part of Machine Learning which uses Neural Networks for learning data.

Problem Statement

- To determine the trucks total turn around time and to further determine the delay in the loading unloading activity.
- This help in tracking the delay that happened during the loading unloading process.
- Necessary action can be taken at the same time.

System Architecture



Here are three common errors in truck loading operations.

- Incorrectly estimating cargo weight and size.
- Improperly loading cargo.
- Delay in truck turn around time.



FAQ And Queries.

- What if more than one truck arrive simultaneously ?
- What if the whole load need not to be unloaded ?
- Is there any way to optimize the time ?

Conclusion

- Turnaround time is the amount of time taken to complete a process or fulfill a request.
- The mechanism proposed here automatically detects the trucks total turn around time and to further determine the delay in the loading unloading activity .
- So this avoids the need of human monitoring all the time to check where the delay has undergone, thus eliminate human error.

Reference I



Kautuk Timane, Puneet Gusain, Dr. Prashant Barge
To reduce the Turn Around Time (TAT) of trucks



Sjoerd van der Spoel – Chintan Amrit – Jos van Hillegersberg
A Benchmark for Predicting Turnaround Time for Trucks at a
Container Terminal

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