

# CROWD MANAGEMENT SOLUTIONS



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# PROBLEMS OF INEFFICIENT MANAGEMENT

## PROBLEM 1

Leads to Stampede,  
causes serious  
accidents.

## PROBLEM 3

Minors may get lost  
in the crowd and  
cannot be traced.

## PROBLEM 5

For efficient  
Management, more  
number of workers  
are needed.

## PROBLEM 2

During any pandemic,  
leads to greater  
spread of diseases.

## PROBLEM 4

Number of Crowd  
may exceed  
occupancy limit.

# SOLUTION

## IMPORTANCE OF OBJECT DETECTION



Using Well-Trained Models, Number of People can be detected in a frame.



Videos can be feeded to model using CCTV footage or any other live source for real-time.



Number of People can be used to calculate whether it is less than occupancy limit or not.



# ADVANTAGE

- Everything is automated. It requires less staff for Crowd Management and booking allocations. No need for monitoring all time. Necessary actions may be taken when required. Hence **profitable** for organisation.
- More **accurate** than physical counting.
- Can help in **reducing accidents**, or a customised pre-trained model of lost children may help in tracing them from cameras. Overall, it is **efficient**.



# PROTOTYPE

## PEOPLE COUNTER & ALARM SYSTEM

Counts number of  
People in a frame

When number  
exceeds, reports to  
the admin

Keeps track of the  
records , real-time.

ARCHITECTURAL DRAFTING AND PLANNING

# IMPACT & PROFITS

## SCALABILITY OF MODEL

People Counter can be implemented in malls, airports, hospitals, event organisations, where track of people is necessary.

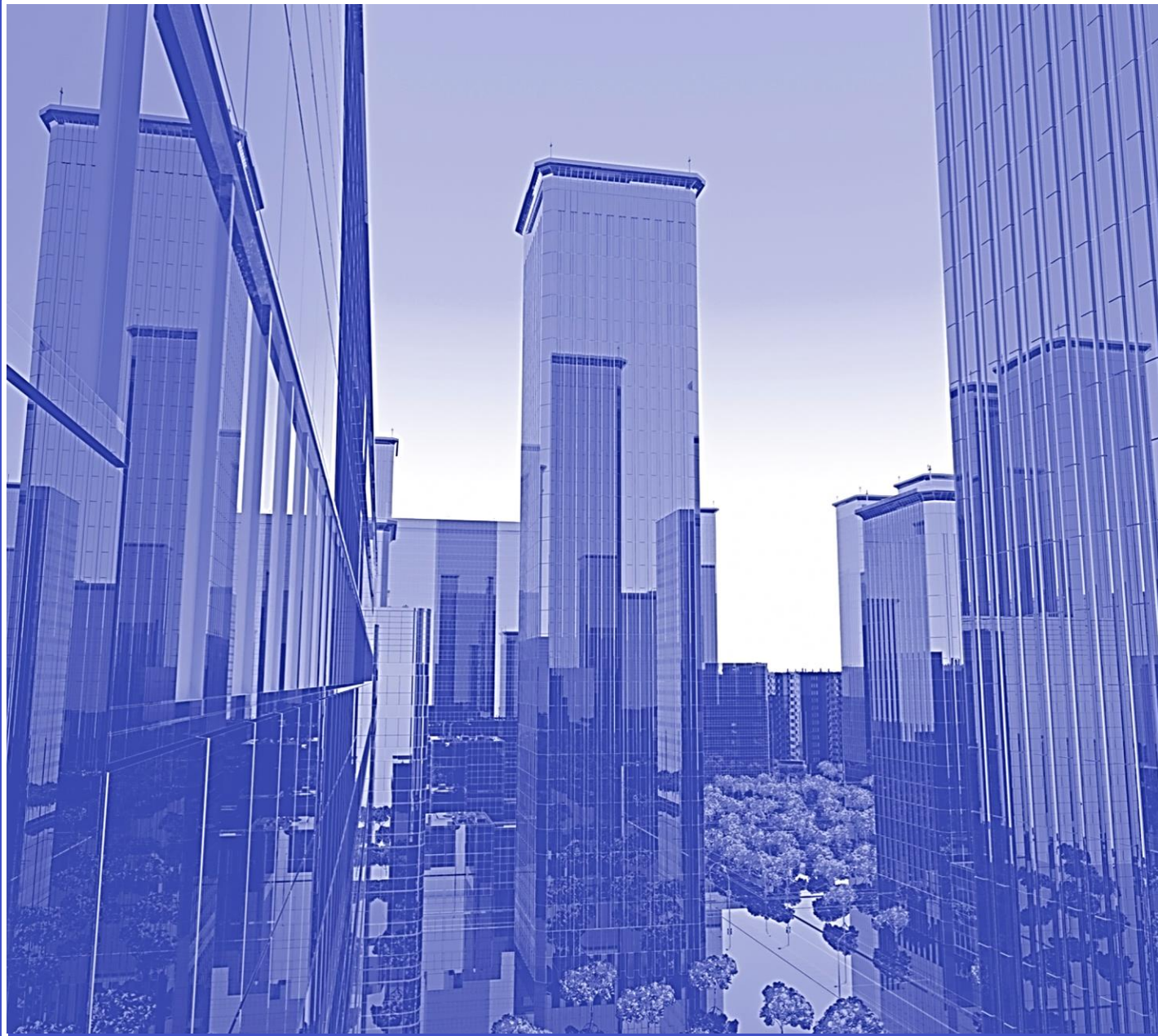
PeopleAction Detection can be made which can predict mobs before event, preventing an accident.

People Detection Model can be also used in face detection in nearer view, which can be used in automated attendance systems.

Hourly based people count can be given to organisations to analyse data and increase their profits.



People Detection can be extended to Object Recognition, Vehicle Detection and many more applications are possible using Object Detection. So this model is scalable and profitable.



## FUTURE PLANS

Alongwith People Detection, we would like to add variations, so that it can recommend event organisers or managers and assist them in organising events.

It can be a helping AI tool for successful events.





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# THANK YOU