

STUDY OF GREEN (TRAFFIC) CORRIDOR WITH THE HELP OF DRONE

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Abstract - Increasing population has increased several problem in India including traffic. Most facilities delayed due to traffic cause great loss. This loss may be economical, personal or even loss of life. Emergencies are untold and if such situation occurs at that time, many lives could be at risk. Green Corridor basically is a temporary pathway created at that time of emergency to facilitate medical aids and other emergency services without any delay due to traffic.

Key Words: Drone (DJI MAVIC PRO), Survey, Green Corridor.

1.INTRODUCTION

About 60 percent of freight and 87 percent passenger traffic is carried by road. Although National Highways constitute only about 2 percent of the road network, it carries 40 percent of the total road traffic. The share of road traffic in total traffic has grown from 13.8 percent of freight traffic and 15.4 percent of passenger traffic in 1950-51 to an estimated 62.9 percent of freight traffic and 90.2 percent of passenger traffic by the end of 2009-10.

2016 as against 1,46,133 in 2015 only because ambulances couldn't get patients to hospital in time or worse, ambulances weren't able to reach the accident spots on time. The same applies to organ transplants - hearts and other organs from brain dead patients sometimes have to be transported over long distances and often from other cities. Getting them to patient who needs them in time is vital for survival. India's overcrowded roads are unsuitable for medical emergencies.

2. Aim And Objective

1. To study the travel time of ambulance.
2. To study traffic volume count between hospitals.

3. To enumerate the various strategies that can be evaluated for better implementation of Green Corridor.
4. To transport patient from accidental place to hospital quickly.
5. To provide traffic resolution at time of visits of VIP's.

3.MATERIALS AND METHODS

1. Study Period : 2018-19
2. Study location : Pimpri Chinchwad Area
3. Study Design : This was case study which is performed by the undergraduate students of Dr. D. Y. Patil College of Engineering Akurdi, Pune under guidance of teaching faculty member.

ADVANTAGES OF DRONE IN TRAFFIC RESOLUTION

- Efficiently traffic management with the help of drone.
- Man-force will be reduced.
- Time efficiency gain by drone which is required for organs harvesting.

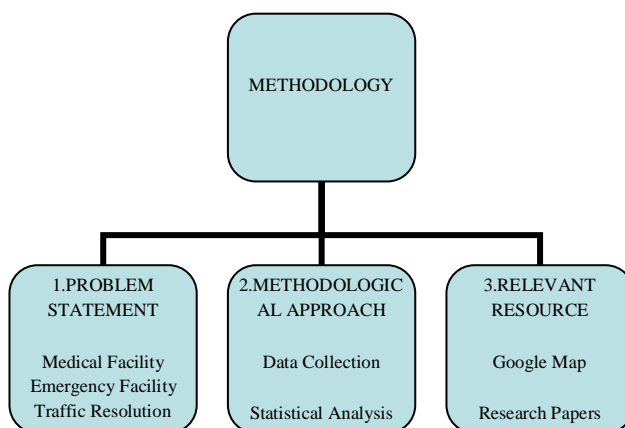


NAME- DJI MAVIC PRO

4.METHODOLOGY

A self designed questionnaire was used to know the need of Green [Traffic] Corridor and various strategies which can use for effective Green Corridor Questionnaire consist of following questions :

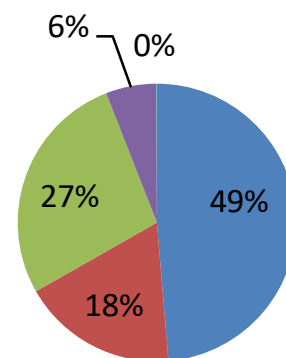
1. What is the need of Green [Traffic] Corridor?
2. If you see an ambulance stuck in traffic or strikes etc. what can you possible suggest to make way?
3. Suggest some various alternatives for better implementation of Green Corridor.



Interval (1 hr)pm	Motorcycle *0.5	Auto *0.5	Car *1	Bus/Truck *3.5	Ambulance *3	PCU/hr
12-1	1623	564	916	193	3	2694
1-2	1573	623	870	203	2	2653.5
2-3	1538	594	856	198	2	2621
3-4	1596	570	900	187	1	2640.5
4-5	1703	637	929	195	3	2784.5
5-6	1764	653	1023	207	2	2959
Total	9797	3641	5494	1183	13	16352.5

TRAFFIC VOLUME COUNT (F Nashik Phata to Khandoba Cho

■ 2 Wheeler ■ 3 Wheeler ■ 4 Wheeler
■ Bus & Truck ■ Ambulance



5.RESULT

S r. N o.	Desti nation	Dist ance (km)	Time required to travel generally (minutes)	Time require d by way of Drone(minutes)	Time saved with the help of Drone(minutes)
1	Aditya Birla Hospital to PCMC Hospital	3.9	10	6	4
2	Lotus Hospital to Accord SDH Hospital	11.7	20	13	7
3	Lokmanya Hospital to YCM Hospital	6.3	13	8	5
4	Aditya Birla Hospital to Lokmanya Hospital	4.2	9	4	5

6.CONCLUSIONS

From the survey conducted, it can be perceived that, it is very difficult to serve medical facility for organ transplant and emergency services. In this case study it can be proved that with the help of drone, Green Corridor can be effectively done for medical facility.

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