



**ANDRED INDUSTRIES**

**PRESENTS**



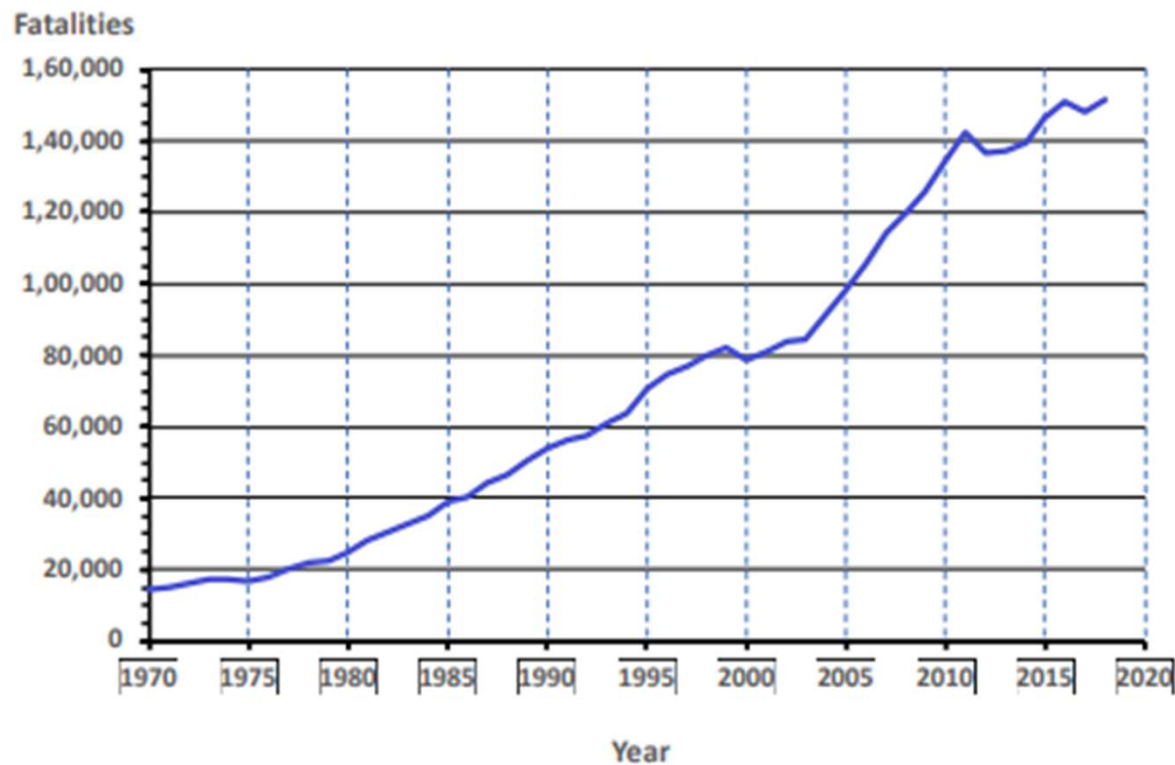


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# GEOPOLES AND COMBICON

USING DRONES AND ROBOTS TO INCREASE THE REACH , SECURITY AND SAFETY OF THE  
POPULATION

# DEATH BY ROAD ACCIDENTS



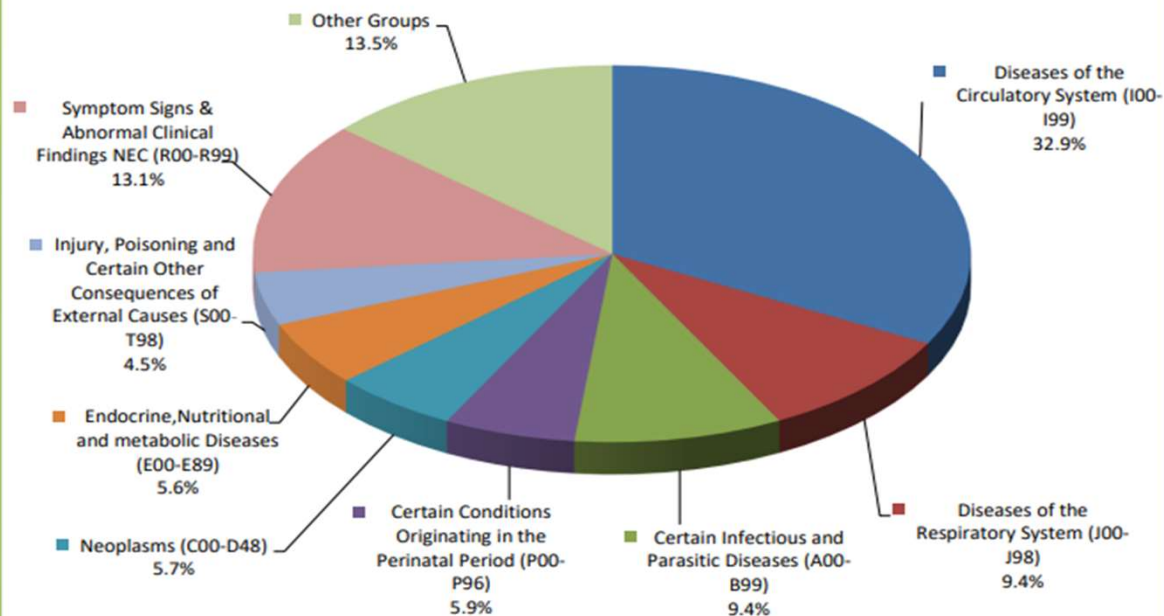
- Around 1.6 lakh people die every year due to Road accidents.
- These accident happen mostly due to unchecked conditions of the roads.
- Other cause of the death is inefficiency of the emergency services.

Source: IIT Delhi research publication(Road Safety in India 2018)

# DEATH DUE TO MEDICAL EMERGENCY

Chart 3.4

Percentage distribution of deaths under MCCD by leading cause groups - 2018



- Around 33 percent death in India is due to cardiovascular failure like heart attacks.
- Many of the emergency services fail to reach the patient on time either due to miscommunication or irresponsibility of neighbors.
- Other medical emergencies are also facing the similar plight.

Source: censusindia.gov.in (MCCD\_Report-2018)



Geopole



Drones



Application

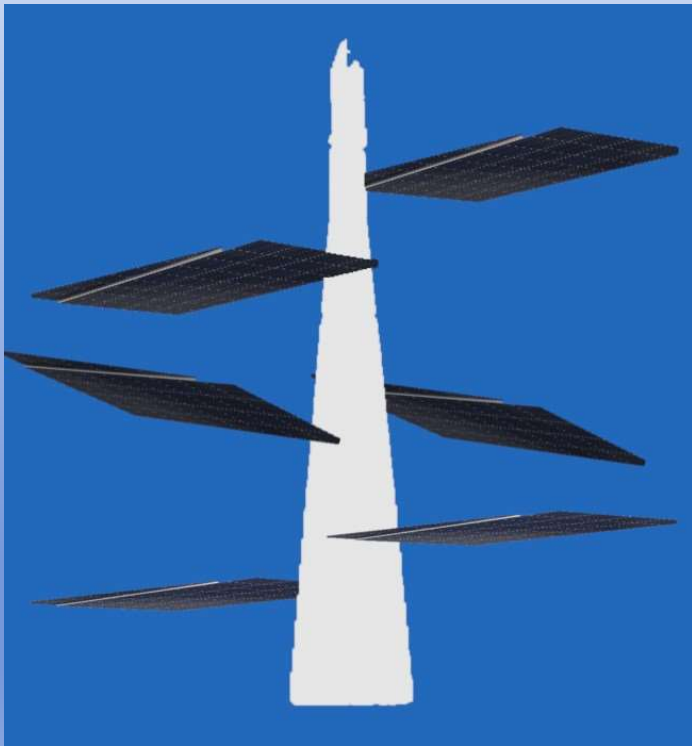
THREE COMPONENTS OF THE SYSTEM

## HOW CAN DRONES HELP ?



- **The infrared enabled solar drones can help by covering the entire area of the city and sending the data back to the supercomputing center.**
- **There the entire population and their activity can be modeled by a neural network.**
- **The infrared can especially be helpful to identify abnormally high rise in temperature in industrial area and taking action before any mishap can occur.**
- **Similarly the data can be used to identify super spreaders of diseases like coronavirus and help us to isolate the community where the vector has interacted.**

## WHAT IS GEPOLE ?

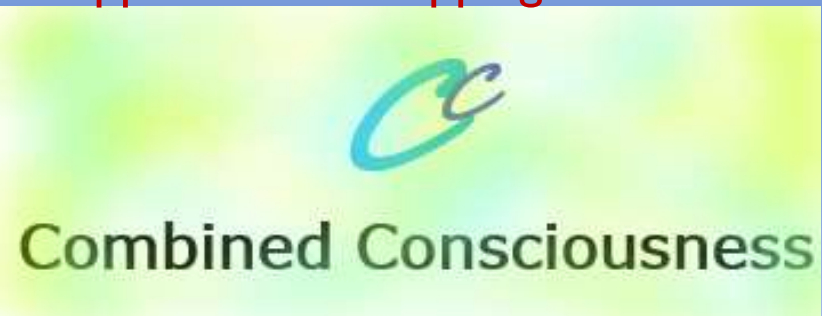


- Geopole is the structure responsible for collecting the drone data and sending it to the supercomputing center.
- It also has solar panels as well as the platforms to recharge the drones at regular intervals.
- Its height could vary from place to place.
- It is preferable to install it from the ground up even though it might cost more.



## WHAT IS COMBICON ?

- COMBICON is the short form of Combined Consciousness.
- It is an app which can be accessed using Aadhar Number of an individual.
- It acts as a platform to post different problems faced by people.
- Example there is a pot hole in the road then a person can use the app to post the photo.
- The drones will then forward the message to the Geopole. Later we can send a professional to fill up the holes.
- Similarly the people who point out such problems in the society will be awarded with CC POINTS which they can redeem in the app itself for shopping and various ventures.
- This way people would have an incentive to help other people as well as take an active part in shaping the society.



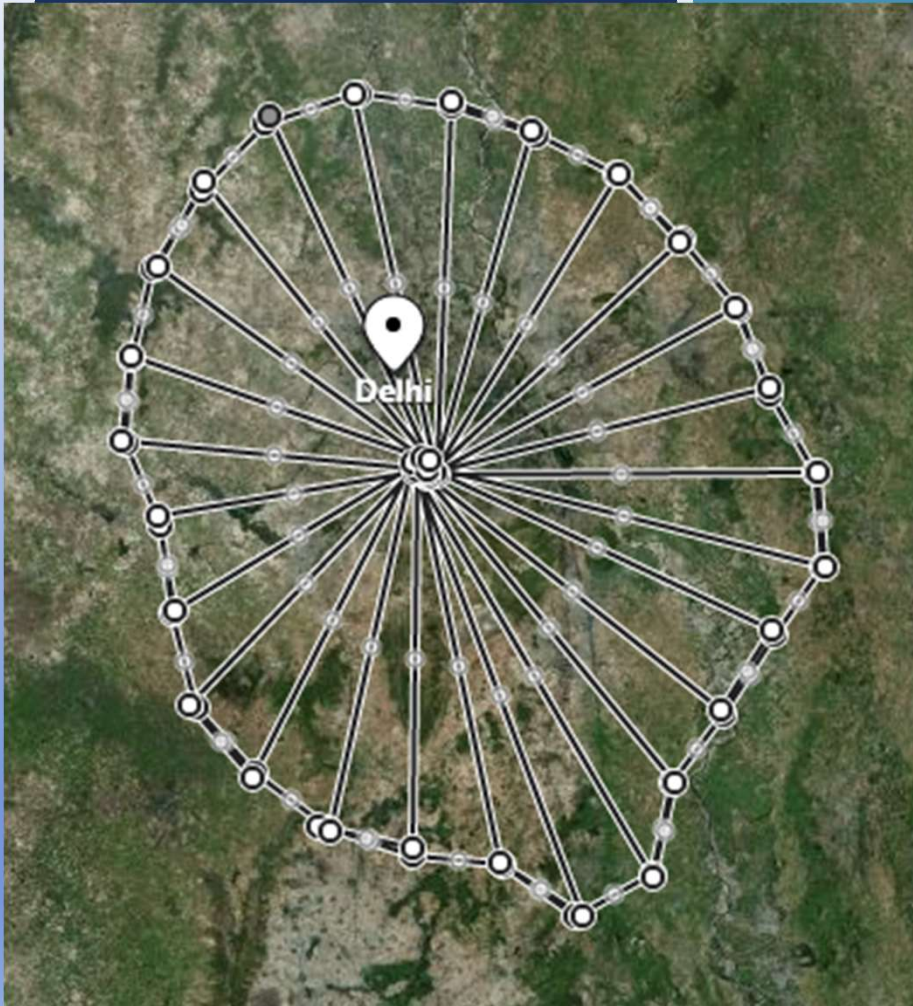


## LET US TAKE A LOOK AT HOW THE SYSTEM CAN BE ESTABLISHED (CITY: NEW DELHI REGION)



We can consider the entire area covered by the KMP Expressway and Eastern Peripheral Expressway as one region.

AREA: 4900 sq KM(approx.)



- We can split the entire area into approximately 26 sections .
- These sections were divided taking into consideration the range and efficiency of the drones.



- This is one of the 26 sectors. Each sector has the supercomputing facility at the base.
- The white dots represents the placement of the Geopole.
- The red lines are the paths taken by the drones for surveillance.
- Each sector can have approximately twenty drones which survey all the time but take alternative turns depending on their limit.
- They are also capable to detect moving objects and evade them according to the preset conditions.

## WHAT ROLE WILL OUR COMPANY PLAY IN THIS ?

- The role of the Mandred Industries is to build all the infrastructure including drones, Geopole and the app Combicon.
- We will also look after the maintenance of the system and model the data for various purposes under the rules and regulations of census department of India.
- Our responsibility also lies in repairing the said infrastructure or at the very least inform the concerned authorities about people's complaints.
- The data of the people will be safe and would not fall into wrong hands.
- The supercomputing facility can use this data for teaching and training students and other emergency service officials as well as improving the existing machine learning models.



## BUDGET ( ONLY DELHI REGION AS PARTITIONED EARLIER)

### DRONES EXPENDITURE

Number : 20 per  
sector

Cost Per Unit: Rs.  
30,000 (approx.)

Total Expenditure:  
Rs. 1,60,00,000

### GEOPOLE EXPENDITURE

Number : 10 per  
sector

Cost Per Unit: Rs.  
1,50,000 (approx.)

Total Expenditure:  
Rs. 4,00,00,000

### MISC. EXPENDITURE

Including the  
servicing of  
infrastructure and  
training of  
professionals:

Rs.2,00,00,000 to  
Rs.3,00,00,000

### APPROXIMATE TOTAL SPENDING

RS. 8,60,00,000

## BENEFIT(W.R.T DELHI REGION)

- The main income would be from the advertisements and the shopping done by the people in the COMBICON application.
- Approximate Population of the Delhi Sector : 1,87,10,922 (Source: [udai.gov.in](http://udai.gov.in))
- Approximate Ad revenue earned per person per year: Rs. 25.5 (Source: The Economic Times)
- Total Approximate Revenue form the app considering only 10 percent of Delhi Population uses it: Rs. 4,80,00,000
- Hence the spent budget can be covered within 2 Years.

## FUTURE PLANS



- In the future we would like to increase the efficiency of our drones and establish various rapid response units across the city.
- We would also like to add terrestrial robots to help with the proper functioning of the traffic and acts immediately in case of emergencies.
- Our eyes are also set on incorporating a transit system across the various streets for emergency vehicles only.



**MANDRED INDUSTRY**

**THANKS YOU**

PRESENTED BY  
BV HARSHAVARDHAN  
(National Institute of Technology  
Silchar)