**HUMAN DETECTION**

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**Problem statement:**

Design an application using deep learning to accurately detect the presence of humans for disaster management for search and rescue operations.

**Introduction:**

Whenever disaster strikes, access to accurate information and the capacity to respond with life-saving assistance is critical. The project aims to find the humans in aerial videos or live videos taken for disaster management by creating an end-to-end autonomous system.

The system can efficiently distribute the drones to cover maximum area, and perform intelligent tasks such as detecting people (both visible and partially visible), whether they are able to move or not and activity recognition to help in optimizing the resources available.

So for the time being we have set the pose to be a waving hand in air. This hand will be detected and will assume that the person needs help. Then the suitable geographical coordinates of that person will be shared to the rescue team   
  
**Scope in future**

This product has greater scopes in coming future as.

* It can be used on the borders to detect entry of any armed terrorist from other side.
* It can be used on a rescue mission to detect human trapped in remote areas
* It can be used for the security purpose

**Product Function:**

1. Firstly the camera records the live video.
2. This video is broken into different frames through the programming.
3. Using tensorflow image processing will take place.
4. Now tensorflow will detect the predefined objects which are present in dataset.

**Operating Environment**

* Anywhere where the drone can fly
* Good Network connectivity
* Good visibility around the site for human detection.

**Assumptions & Dependencies:**

* Totally dependent on network speed and geographical conditions.
* Totally dependent on the estimated dataset, libraries, GPU.

**Challenges:**

* **JNI(Java Native interference)**
* Precise detection of human in that particular video.