**A Solution for a Secured Alert System**

**INTRODUCTION:**

The objective of this work is “prevention is better than cure”.

In the corporate world, various aspects of security are historically addressed separately - notably by distinct and often non communicating departments for IT security, physical security, and fraud prevention.

**PROBLEM DEFINITION:**

This work aims at creating a portable and efficient way of detecting the criminals who try and intrude into any of the public place and are caught around the cameras view, matching the database records of the criminals. The goal of the work is to increase the sense of security in malls and other public places that require and are prone to threats.

**DESCRIPTION:**

In this work that we are going to take up, contains a database as the backend which contains all the pictures of the criminals with some criminal records on them. We use a raspberry pi board which is a credit card sized board which is the heart of this project. We also use a raspberry pi camera which takes in all the photos of the people walking in and out of the public places. We are going to use technology called image processing, which basically tries to match the face of the person with the database that we have. If the match is found then cops and the public who are currently present in the public places are informed and the cops can take action on the criminal immediately.

**HARDWARE USED:**

* Raspberry pi board.
* Raspberry pi Camera.
* GSM - SIM 900
* Power supply Adapter

**TECHNOLOGY USED:**

Digital image processing is done on the digital images which are the inputs to this work. Techniques used in digital image processing:

* Pixelation
* Linear filtering
* Image editing
* Image restoration
* Principal components analysis
* Independent component analysis
* Hidden Markov models
* Anisotropic diffusion
* Partial differential equations
* Self-organizing maps
* Neural networks
* Wavelets

**DELIVERABELS:**

* Public safety.
* Tracking of criminal behaviour.
* Enhancement of Security System and make to more robust.
* Minimizing damage to the public.