

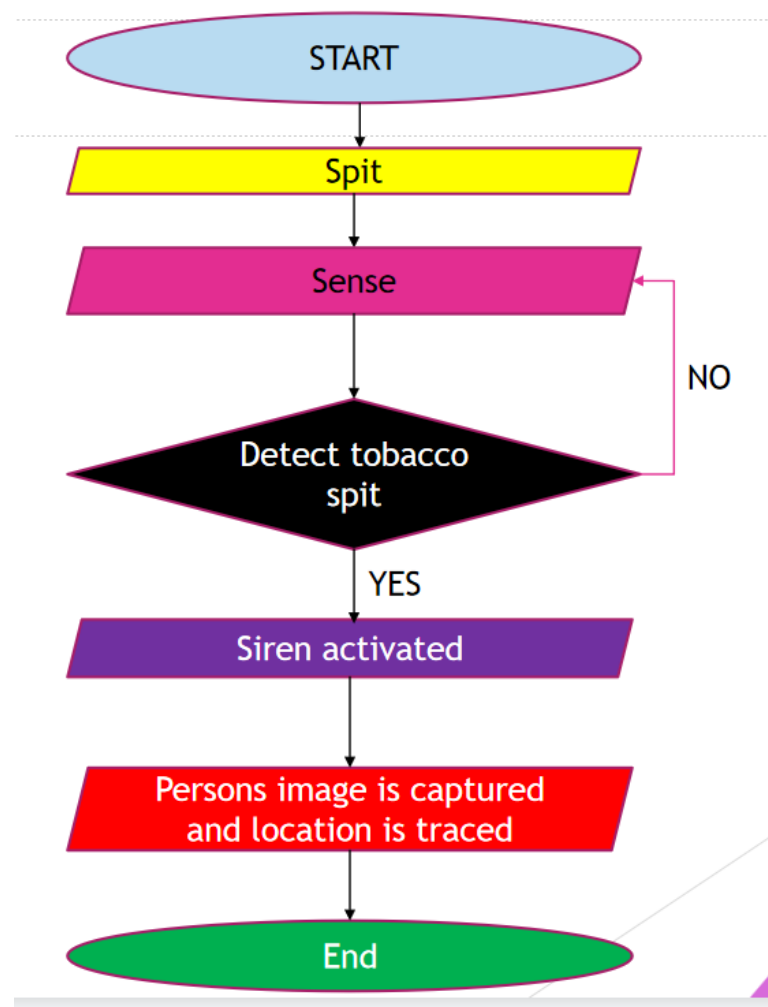
1.	Project Reference Number: 46S_BE_5406
2.	Title of the Project: SPIT SENSING AND MONITORING
3.	Name of the College and Department: FACULTY OF ENGINEERING AND TECHNOLOGY(EXCLUSIVELY FOR WOMEN) SHARNBASVA UNIVERSITY, KALABURAGI (COMPUTER SCIENCE AND ENGINEERING)
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6.	<p>Keywords: Sensor of chemical equipment, Java, Camera, screen/tablet, Led light, Buzzer</p>
	<p>Introduction:</p> <p>Spitting is a very common practice in India and several other places like Tourist spot, Banks, Lift, etc are all made very unhygienic. Spitting makes the environment dirty, spreads communicable diseases and degrades the importance of the monument, complex or area. For the first iteration lifts and corners of the wall has been chosen as these places are most commonly used for spitting. Despite of all advancement in technology and economy, India lags behind hugely in sanitation and hygiene. While Singapore, USA and UK have stringent laws, India is still negligent and yet to find a solution to curb this menace. Spitting is one of the focus areas of Swachh Bharat mission and the others open defecation. It is considered a sign of masculinity. Spitting on the ground in front of someone is supposed to show the disrespect, anger, rudeness, arrogance, uncleanliness. 10m of radius the person who spits will be detected by the sensors and through alarm the signal will be passed to the observer. This work aims at abating the unhygienic habit of spitting.</p> <p>By the reference of the project “Spitometer, the project is aimed at installing sensors at public places. It comprises of opaque PCB connected to a circuit with buzzer with a combination of separate camera surveillance system. Ideally, the sensor need to be printed on transparent plastic sheets. Instead of the buzzer camera or an interactive display may also be installed.</p>
8.	<p>Objectives:</p> <p>The motto of the project is to keep surrounding clean and environment eco-friendly and to build clean and healthy India. The project is aimed at installing sensors in public places so that any action of spitting can be detected and the defaulter can be fined/punished.</p> <p>The spit sensing device enables constant monitoring of activities of people and aims at abating the unhygienic habit of spitting. The camera continuously monitors the activities of people and the sensor detects the act of spitting. As people gradually get used to the fact that sensors have been installed it is assumed that people will not spit in public places and appropriate place for spitting, using this model the sensor fetches real time video and image data of public areas. The images send via through signals to detect public spiting using sensors and cameras using this methodology and results are finally displayed on the web and mobile applications of the local authorities.</p>

9.

Methodology:

The camera continuously monitors the activities of people and the sensor detects the act of spitting. Chemical sensor is designed to be inserted to detect tobacco spit up to 250mtrs and then it passes the signals in form of alarm to the authorities. Through jumper wires the LED light is connected to the sensor. The monitoring camera captures the activities and helps in identifying the person. The location is traced through the signals passed by the alarm which is displayed on the LED screen and the observer (control room) notifies the defaulter. the location can be tracked and the program is installed in the electronic chips and then connected to the IC. The sensor senses the chemicals present in spit then detects and sends signals to the observer on the screen or monitor. This sensor is connected to the IC the program is installed in electronic chips as soon as the device senses, The signal is sent in the form of buzzer and by tracing the location the observer identifies the defaulter.



10.	Result and conclusion: The spit sensing device enables constant monitoring of activities of people and aims at abating the unhygienic habit of spitting. The camera continuously monitors the activities of people and the sensor detects the act of spitting and the defaulter is fined / punished. As people gradually get used to the fact that sensors have been installed it is assumed that people will not spit in public places and find appropriate place for spitting.
11.	Scope for future work: There can be more creative ways that can be explored. Display monitor can be activated saying “Do not Spit Here!” .Further it can be implemented in the public place like Railways station, Bus stop, Hospital, Archaeological sites.