**SURAKSHA360**

**Project Description**

**Short description:**

**Problem Statement**: In the pandemic situations like COVID-19, exposure to a possibly unhealthy person may result in the increased vulnerability of a larger population within organizations/Offices. So, as we reopen our organizations/offices after the global pandemic it is a need of the hour to come up with a proactive solution to ***‘*Trace/Recognize/Screen/Isolate ‘*any*** such potential carriers from the rest of the population.

**Proposed solution:** We are proposing to design a proactive mechanism – SURAKSHA360 that can be used by the organizations to screen and identify every employee that enters their premise on the basis of his unstable vital sign readings .Any of such employee is to be monitored by a physician with whom the organization has collaboration and if required may be diagnosed by him to be isolated from the other population and be suggested to stay / work at home.

**Long Description:**

**Problem Statement**: In the pandemic situations like COVID-19, exposure to a possibly unhealthy person may result in the increased vulnerability of a larger population within organizations/Offices. Also as it may has already evolved , a large number of people who are actually asymptomatic in the current state may be potential carriers of some health threats that can eventually be deadly to others that may be effected. So, as we reopen our organizations/offices after the global pandemic it is a need of the hour to come up with a proactive solution to ***‘Trace/Recognize/Screen/Isolate ‘any*** such potential carriers from the rest of the population.

**How technology can support New Normal**: This pandemic time has broadly established the fact that physical presence at the offices is not compulsory and it is very important that any person who carries any health condition should stay at home and continue work. Since every such health condition has a close connection with the Vital signs of any person, if they can be monitored for any deviation from normal , It is strongly possible that such person can be successfully isolated on the proactive basis before any visible symptoms and further spread.

**Suraksha360:** This is a monitoring system which provide the organizations a mechanism to collect the Vital signs of each of the employee entering their premise and associate with a professional health Care physician to be able to identify any person who is deviating from the standard health conditions. Such person can be monitored for a period of time and this application should be able to generate a detailed analysis report on dashboard that should be accessible to physician and he may declare a verdict to suggest the isolation of that person from office premise if required.

**Components:**

1.) **IOT device**: To capture the vitals of each employee entering the premise.

2.) **Database** - To obtain the employee, physician details.

3.) **Python** - To integrate the data captured by IOT device with the employee database and analyze them to create the potential alert(flag) for the employees to identify them and to trigger a mail to notify the manager and concerned physician .Only for the patients who are identified at the screening level , data will be assembled in the dashboard to create a report that will be further analyzed by the physician.

As soon as physician provides final approval then Python will be used to trigger a mail again to the employee and employee manager to finally declare them as potential health risk and isolated immediately.

4**.) Cognos** - Vital data for the screened patients for 7 days will be utilized to create a report that will provide a summary of health status of that person to physician.

**Conclusion:** This way we provide a tool to organizations to safely reopen after any such pandemic situation, Prevent their employee of a greater health contact risk but also provide the individual employee to keep themselves health checked.