**Problem statement for Stage-3 of Gizmocon, Abhisarga-2023**

Title: Design a scalable Rural Health care system to monitor the below mentioned parameters of the people in a village **following the below guidelines.**

Assume every village panchayat office will have a system where each person in the village will come in his designated time slot to the office to check and log the below parameters using the sensor subsystems attached. Below data from each person must be recorded into a database authenticating him with a fingerprint.

1. **ECG signal**
2. **Heart rate**
3. **Body temperature**
4. **Blood pressure: Generate the BP data from the embedded board in the ranges specified below and upload to database as if the data is collected from a sensor:**
5. **SPO2**

**Data storage and access restrictions:**

* Teams can choose freely available databases to log the above data.
* Access to data should be restricted to certain people like the user, Doctors and higher officials.
* one should be able to see present data and also the previous week/month/year data in terms of graphs/stats based on the user/Doctor/official request.

**Recommendations and Alarms:**

* A recommendation based on ECG, BP, Heart Rate, temperature and SPO2 readings using AI and ML modes is expected.
* Team with more accurate recommendations may get points in the time of evaluation
* A mobile app is expected for visualization of the present and past readings, recommendations, notifications etc.
* Recommendations for further diagnosis and treatment to connect to nearest hospitals based on the user location is expected

**Datasheets of the sensors provided to each team are given below for your easy reference.**

1. **ECG sensor 2. Heart rate 3. Body temperature 4. SPO2**

Evaluation Team:

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