PANIMALAR ENGINEERING COLLEGE
An Autonomous Institution
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Bangalore Trunk Road,Varadharajapuram, Poonamallee, Chennai- 600 123

TECHDIVATHON

Empower, Innovate, Elevate: Code the Future Together

Domain: HEALTHCARE

Problem Statements:

Sno	Title	Problem Statement	Description
1	Remote Health Monitoring for Rural Areas	Lack of access to healthcare facilities in rural areas leads to delayed diagnoses and treatments.	A portable device that measures heart rate and blood pressure, transmitting this data to doctors via low-bandwidth internet for remote consultations.
2	Personalized Medication and Dosage Monitoring System	Forgetting to take medications on time can lead to health complications.	A smart pillbox with sensors that track medication intake and send reminders to users or alerts to caregivers.
3	Wearable for Real-Time Mental Health Monitoring	Early signs of mental health issues often go unnoticed due to lack of tracking.	A wristband that monitors heart rate variability and sleep patterns, providing insights into stress levels and mental health.
4	Portable Health Parameter Monitoring Device for Emergencies	Emergency situations require quick and portable health assessments.	A compact device to monitor vital parameters like oxygen levels, aiding in immediate medical decisions during emergencies.
5	IoT-Enabled Smart Thermometer	Manually tracking temperature trends over time is cumbersome.	A thermometer that syncs with a mobile app, automatically recording and analyzing temperature trends for better health insights.
6	Fall Detection Sensor System for Elderly	Falls among the elderly often go unnoticed, leading to delayed assistance.	A wearable sensor that detects falls and sends immediate alerts to caregivers, ensuring timely help.
7	Compact Handheld ECG Scanner	Heart rhythm monitoring devices are often bulky and inaccessible during emergencies.	A lightweight, pocket-sized ECG scanner that detects heart anomalies and enables quick diagnosis.
8	Pulse Oximeter Integrated with Smartphones	Standard pulse oximeters lack advanced features like data tracking.	A clip-on device that monitors oxygen levels and syncs readings to a connected mobile app for easy record-keeping.
9	Low-Cost Smart Pill Dispenser	Managing multiple medications on time is a challenge, especially for elderly patients.	A cost-effective dispenser that releases pills based on pre-programmed schedules, ensuring accurate dosage and timing.

10	Non-Invasive Glucose Monitoring Device	Traditional glucose monitoring methods involve invasive procedures, causing discomfort.	A device that uses light sensors to measure glucose levels non-invasively, enhancing patient comfort and compliance.
11	AI-Driven Early Disease Detection Tool	Early detection of critical diseases like cancer remains a challenge.	This software uses AI to analyze medical images, helping identify diseases at an early stage for timely treatment.
12	Accessible Health Information App	Reliable health information is often inaccessible, especially offline and in multiple languages.	An app providing multilingual, offline health information and guidance for better accessibility and understanding.
13	Blockchain-Based Patient Data Management System	Secure sharing of patient data across healthcare providers is difficult.	A decentralized platform that ensures secure and transparent sharing of medical records, enhancing patient privacy.
14	Mental Health Assistance Chatbot	Many individuals hesitate to seek help for mental health concerns.	A chatbot that provides mental health tips, self-help resources, and connects users with counselors for support.
15	Disease Outbreak Prediction Dashboard	Unanticipated disease outbreaks can cause widespread harm.	This dashboard uses public health and AI data to predict outbreaks, enabling timely interventions.
16	Personal Fitness and Diet Recommendation App	Generic fitness and diet plans fail to meet individual needs.	An app that creates personalized fitness and diet recommendations based on user health data and goals.
17	Symptom Checker with Emergency Response Feature	Delayed response to symptoms often escalates health issues.	A tool that identifies possible conditions based on symptoms and connects users to emergency services if needed.
18	Medication Reminder App	Forgetting to take medications disrupts treatment regimens.	An app that alerts users to take medications on time and tracks dosage history for consistency.
19	Hospital Queue Management System	Long wait times in hospitals lead to patient dissatisfaction.	A software solution to manage and reduce wait times by organizing patient appointments and queues efficiently.
20	Healthcare Translation App	Language barriers hinder effective communication in medical care.	An app that translates medical instructions into regional languages, improving accessibility for non-native speakers.
21	IoT-Connected First Aid Kit	Emergency first-aid procedures are often performed incorrectly due to lack of guidance.	A smart first aid kit that provides step-by-step instructions during emergencies, linked with IoT for remote assistance.
22	Real-Time Health Alert System for Hospitals	Monitoring patients continuously in hospitals requires extensive resources.	This system integrates sensors in hospital beds with a dashboard to alert staff of critical changes in real time.
23	Mobile Health Diagnostic Station	Rural areas lack access to diagnostic tools and consultations.	A portable station combining diagnostic hardware and a mobile app for remote consultations, bridging the gap in healthcare access.
24	Wearable Infant Health Monitor	Monitoring infant health, especially during sleep, is a concern for parents.	A wearable sensor for babies that tracks vitals like heart rate and temperature, syncing data to a mobile app for continuous monitoring.

25	AI-Driven Elderly Care Assistant	Elderly individuals often require constant health monitoring and assistance.	A combination of wearable sensors and an app to monitor elderly health, provide alerts, and remind them about medications or appointments.

Reviewer's Digital Signature

Reviewer's Name:
Position:
Organization:
Date:

Digital Signature: